Regional Programme on Economic Statistics in Asia and the Pacific

**FOUNDATIONAL   
ECONOMIC STATISTICS**

April 2019

A close up of a sign

Description generated with very high confidence

**Glossary of Terms**

*CE* Compensation of employees

*CFC* Consumption of Fixed Capital

*CII*  Change in Inventories

*GCF* Gross Capital Formation

*GDCF* Gross Domestic Capital Formation

*GDP* Gross Domestic Product

*GFCE* Government Final Consumption Expenditure

*GFCF* Gross Fixed Capital Formation

*GNDI* Gross National Disposable Income

*GNI* Gross National Income

*GVA* Gross Value Added

*GVO* Gross Value of Output

*HFCE* Household Final Consumption Expenditure

*IC* Intermediate Consumption

*M*  Imports

*MI* Mixed Income

*NDP* Net Domestic Product

*NNI* Net National Income

*NVA* Net Value Added

*NVO* Net Value of Output

*NPI* Non-Profit Institution

*NPISH* Non-Profit Institution Serving Households

*OS* Operating Surplus

*PFCE* Private Final Consumption Expenditure

*PI* Property Income

*RoW* Rest of the World

*SNA* System of National Accounts

*TTM* Trade & Transport Margin

*(t-s)* taxes *minus* subsidies

*VAT* Value Added Tax

*X* Exports

*Subscripts*

*bp* stands for *at basic prices*

*purp* stands for *at purchasers’ prices*

*mp* stands for *at market prices*

**Acknowledgements**

This training material is intended to assist junior level economic statisticians in understanding the basic concepts of economic statistics related to the System of National Accounts (SNA)/Gross Domestic Product (GDP), Classifications used in economic statistics, Taxation as a source of economic statistics, Measuring GDP in practice and price statistics.

In addition, we have made use of various handbooks and publications of international organisations like United Nations Statistics Division (UNSD), Organisation for Economic Corporation and Development (OECD), International Monetary Fund (IMF) and Statistical Office of the European Communities (Eurostat), for preparing this reading material.

Various experts were involved in the development of the training material including critical review from members of the Network for the Coordination of Statistical Training in the Asia-Pacific Region. Financial support for developing the training materials was provided by the United Kingdom Department of International Development (DFID).

# 1.0 Introduction to the Programme (Module 1)

**About this training programme**

The overall objective of this training programme is to provide foundational statistical materials that may be used in-country to develop further the skills, knowledge and abilities needed to compile macro-economic and related statistics. There is a substantive focus on national accounts, business statistics and price indexes. It is intended that this course will serve both as a training course and as a set of reference materials for both statistical compilers and trainers.

Once they have completed this course, statisticians in national statistical offices (NSOs), in particular those working in national accounts, price index development and compilation and in business statistics, will be able to access a wide variety of data sources and reference materials in order to be able to:

1. *develop and produce price indexes*, in particular the consumer price index (CPI) and any needed producer price indexes (PPIs); and/or
2. *develop and produce* *value and volume estimates* of gross domestic product (GDP) through one or more of the methods identified;

*by identifying and employing appropriate data sources and compilation methods*.

**Background**

The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), through its Regional Programme on Economic Statistics (RPES), aims to assist member countries to improve the soundness of their economic analysis and related decision making through the increased availability and effective use of timely, reliable and comparable economic statistics.

To facilitate this objective, a Core Set of Economic Statistics has been developed to provide countries with a goal of a minimum set of economic statistics that they should have the capacity to produce by 2020. The RPES provides a platform for the countries of the Asia-Pacific region to share resources and experiences on economic statistics in order to develop the Core Set. While countries have agreed that the Core Set is the reference for improving economic statistics, they may prioritise components In order to develop policy plans and monitor progress on policy objectives. Countries need robust statistical evidence to monitor, among other things, economic performance.

Accordingly, this training course has been developed by a team of economic statistics experts for the use of in-country compilers and trainers to improve the capability of national statistical systems in their aim of producing and disseminating economic statistics from the Core Set. This training course development has been funded by the United Kingdom Department for International Development and overseen by the ESCAP Committee on Statistics through the ESCAP Statistics Division.

**The Sustainable Development Goals and macroeconomic statistics**

The 2030 Agenda for Sustainable Development, with the sustainable development goals (SDGs) at its core, was adopted by member States of the United Nations in September 2015. The SDGs comprise a universal set of goals that the UN member states are expected to use to frame their agendas and government policies over the next 15 years. Each goal has a set of targets and indicators that measure progress toward the goals. Many of the indicators require the availability of statistics from the Core Set. The global indicator framework is the tool for measuring progress towards achieving the SDGs. Countries are now facing an increasing demand for the production and dissemination of statistics appropriate for measuring and monitoring these indicators. A number of indicators that are part of this framework are identified in various modules of this training course.

**The Core Set of Economic Statistics and Skill Domains of Statisticians**

In order to make policy plans and monitor progress on policy objectives, countries need robust statistical evidence to show, among other things, how the economy is performing. Such evidence is also needed for a wide range of policy goals other than economic performance. ESCAP’s Statistics Division has identified a set of skills that statisticians need in order to be able to produce all of the Core Set.

The Core Set describes the minimum set of statistics that a country should produce for sound economic policy making. It comprises seven areas of economic statistics: prices and costs; demand and output; income and wealth; money and banking; government; labour market; and natural resources and environment. Regular and timely dissemination of these statistics will contribute to the monitoring of the indicators that measure progress towards each of the SDGs.

This training programme is focused on the prices and costs, demand and output, and natural resources and the environment portions of the Core Set, and aims to guide statisticians in the development and enhancement of an appropriate set of skills in these areas.

**Using this training programme**

The training course consists of 10 modules covering:

the ongoing compilation of production-based and expenditure-based gross domestic product (GDP), in both value and volume terms, annually and quarterly; the development and ongoing compilation of price indexes, in particular the consumer price index (CPI) and the producer price index (PPI); classifications; the main data sources and statistical techniques applicable to this work..[[1]](#footnote-1)

The modules are grouped into topical areas, and compilers and trainers may choose among these groupings, or follow the programme from beginning to end, according to each country’s and each person’s needs. Some modules consist of a PowerPoint presentation and a set of guidance notes to be used in conjunction with the PowerPoint slides and focuses on a particular aspect of data collection and compilation of the various major macro-economic datasets. It is expected that the shorter modules will take two to three hours to complete, while the longer ones may take up to six to eight hours. These longer modules may be broken down into more manageable portions. The total time to complete the modules is estimated at about 80 hours.

Participants in the training course should begin with Modules 1 and 2, the introductory modules. Modules 3 to 7 should be taken one after the other, as should modules 8 to 10. Otherwise, there is some flexibility to the order.

Most modules also have one or more exercises to be carried out by course participants at the end of the module, before moving on to another module. These will require extra time, one to two hours for each module. It is highly recommended that all exercises for a particular module are undertaken before moving to the next module. Some of the exercises build upon the exercises in previous modules. For example, the exercise in Module 4 is further developed in Module 5, and again in Module 5 and in Module 7. At the end of Module 7, participants will have a list of possible future improvements and a list of prospective new data sources for the compilation of gross domestic product (GDP) through one or more approaches. A similar approach is taken for rebasing and otherwise improving the Consumer Price Index (CPI). Other exercises contain numerical examples to work in order to reinforce materials covered in the associated module.

If all exercises are completed, statisticians will have

1. identified scope for improvement in value and volume estimates of GDP. Where estimates do not exist, statisticians will have identified ways forward with further development. Possible new data sources will have been identified; and
2. identified future requirements for rebasing the CPI, including necessary data sources and a timeline for the development.

**Other requirements for producing robust economic statistics**

There are other, more general skills and techniques that a statistician needs to develop in order to produce the best possible statistics.

It is important to be aware of what is happening in the economy. For example, monitoring of large capital projects, and investigating the funding of these, will allow the GDP (and thus the growth) estimates to appropriately reflect the effects on the economy of such projects. Further, including new activities as they begin and then grow will more accurately reflect the true activity levels and changes in the economy.

Being aware of how the government and other agencies function provides the opportunity to develop additional data sources, especially from a wide range of administrative sources. The development of informal data sources is very important in the absence of reliable formal data collection.

A good legal basis for data collection and compilation is an essential part of producing good statistics, as is a sufficiency of resources – people, equipment, funding and so on. The data suppliers are another essential part of producing robust statistics. Data requests should be clear, concise and use language that the suppliers understand. Where appropriate, confidentiality of data and suppliers must be guaranteed; appropriate systems must be in place to ensure this.

Finally, there are many sources of guidance and assistance available. This course is a starting point; there are references to a range of statistical manuals and other websites where you can find further information. One very helpful source is the websites of other countries, where information on sources and methods may be found, as well as publications of statistics and associated technical notes and metadata. Each country should post metadata and other relevant materials on its own statistics website for reference by other countries, as well as for easy access by all users.

**More information**

Further information on ESCAP’s RPES, the Core Statistics and the Skill Domains for Statisticians may be found on the ESCAP website http://[www.unescap.org](http://www.unescap.org), and information about the SDGs, and their targets and indicators may be found at the website of the UN Statistics Division <https://unstats.un.org>.

The Statistical Division at ESCAP may also be approached for assistance through the website at <http://www.unescap.org/contact>.

1. It is assumed that (i) time is available for compilers and trainers to use this material and (ii) sufficient resources (people, office resources and financing as necessary) are available to compilers to further develop statistics appropriate to each country’s needs. [↑](#footnote-ref-1)