Guide to statistics in European Commission development cooperation

2021 edition

eurostat

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Foreword

Reliable and relevant statistics are essential for all aspects of public discourse and for holding governments accountable. They constitute a key tool for governments and policy makers to measure progress towards development goals and provide information about the effectiveness of policies and programmes.

This Guide provides extensive information on statistics in development cooperation, presenting key international initiatives supporting developing countries in building sustainable statistical systems that produce quality statistics. It provides information on how to identify and develop actions in support of key statistics and how to use data and indicators to define and follow-up cooperation programmes.

This edition also includes various key developments, including the sustainable development goals (SDGs) and the SDG indicators framework, the UN World Data Forum and other related initiatives. The implementation of development programmes aimed at achieving the SDGs has further raised the demand for high-quality statistics in this area.

The EU is the biggest provider of development assistance in the world. In the area of statistics, the European Commission, together with the EU Member States, is highly involved in the field of international statistical cooperation, with Eurostat — the Statistical Office of the EU — at the forefront of developing methodology and instruments for harmonised and reliable statistics. This publication is intended to support EU Delegations around the world, as well as various EU/EC services, and more generally, those involved in implementation of statistical cooperation programmes.

For a non-statistician, the Guide explains how national statistical systems are organised and how they function, the central role of national statistical offices, as well as core international quality frameworks and principles for statistics. Overall, the Guide has been designed as a dynamic, interactive tool providing technical references and guidance on statistics, through hundreds of active hyperlinks for further information.

This updated version of the Guide is the fifth consecutive edition; the first edition was published a decade ago. To make the Guide easier to use, it has been divided into a core volume, supplemented by chapters that present statistics and statistical processes in specific sectors (gathered into a set of four thematic volumes): Sustainable Development Goals and indicators; social statistics; economic statistics and; environment and climate change statistics. With the exception of the volume on economic statistics, the whole publication has been updated for this edition.

Since the start of 2020, the world has been under immense strain from the COVID-19 pandemic and its repercussions. The setback caused by the pandemic and its dire consequences for finances and capacity in many societies may further amplify the challenges. The need for support through capacity development and technical assistance is therefore more vital than ever. In this context, the demand for data and statistics to monitor and evaluate this dynamic situation has become proportionally greater, with a requirement for new statistics and more rapid results.

I hope you will find this new edition of the Guide useful. As always, Eurostat welcomes any feedback and ideas on how to develop it further.

Mariana Kotzeva

Director-General, Eurostat

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The main author has been Knut E. Utvik, Artemis Information Management S.A., with additional contributions by Thierry Paccoud.

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All statements on policies within this publication are given for information purpose only. They do not constitute an official policy position of European Commission and are not legally binding.

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A Introduction: the guide to the Guide

Part A: Introduction: The guide to the Guide

A.0.1. Why a Guide to statistics in European Commission development cooperation and who should read it?

'I have no data yet. It is a capital mistake to theorise before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts...'

Sherlock Holmes in 'A Scandal in Bohemia' by Sir Arthur Conan Doyle, 1891

The purpose of the Guide to statistics in European Commission development cooperation is to explain why statistics are important for development cooperation, how to use them and what needs to be done to make them available. It is not intended to be a course in statistics and statistical methods. Alternative and additional reading is shown in the 'To find out more' box at the end of each section.

The Guide is the fruit of a close cooperation amongst Commission services and international stakeholders in statistical co-operation for development. It is principally aimed at supporting EU staff working in development cooperation, especially in EU delegations. However, it is also relevant to other actors in statistical development programmes. In particular, it aims to aid practitioners who need to know more about statistics in development cooperation context. The Guide explains why and how statistics are relevant to their work and what they need to do in various situations. It provides the information required for Commission staff to undertake the following tasks:

- Use statistical indicators to design and monitor development programmes;
- Identify and develop statistics support actions;
- Promote the use of statistics at each stage of the aid cycle;
- Advocate for early consideration of which statistics and indicators will be needed for implementation, evaluation and impact assessment (and what is required to obtain these).

The Guide aims to answer a number of basic questions about development statistics:

- Part A, this Introduction, is a guide to when and how to consult the Guide
- Part B: Statistics in Development looks at why and how statistics enter the development process and how to understand and check data
- Part C: Support for Statistics considers when and how the European Community needs to act to make sure that good quality statistics are available to support its development goals
- Parts A-C are completed by four thematic volumes dealing with the use of Statistics for Policy Issues. Chapters in these volumes look at how statistics can be used and supported to achieve European Commission policy aims in specific sectors.

When arguing that statistics are important but bread is more urgent, one should ask oneself on what information the answers to the following questions are based: 'How much bread?' and 'Where is it needed?' Development fundamentally is about people and about eliminating poverty. In order to manage the process, it is essential to measure it. While statistics may not directly reduce poverty or hunger, they are an essential component of a complex process; without adequate statistical data it is by no means certain that actions to reduce poverty will be directed at the right problem, that they will be effective or that they will result in sustained improvements.

It is obvious that good and reliable statistics are necessary to donors, in order to assess where aid is most needed, to use resources efficiently, to measure progress and to evaluate results. There is broad consensus that the Sustainable Development Goals (SDGs) identify the desired outcomes as well as the means for measuring progress. Thus, statistics are vital to 'Managing for Development Results' with shared accountability and focus on results.

A key issue is the need for good country-specific and country-owned policies and institutions. Better statistical data and improved analysis can create a political will for changes. Without good statistics, governments cannot deliver efficient administration, good management, and evidence-based policymaking. An effective and efficient national statistical system, providing regular and reliable data on the economy and the well-being of the population, is an important indicator of good policies and a crucial component of good governance.

Statistics also provide a means for the media, non-governmental organisations and any citizen to monitor the activities of government. The ability to provide regular and reliable data on the economy and the well-being of the population is an important indicator of good policies and institutions. When the statistical system produces quality data which is trusted by the public, transparency increases and accountability is promoted. The quality and availability of data depend on the capacity of the institutions involved in the national statistical system, which are often undervalued and underfunded.

Now read on, this Guide will help you find what you want to know.

A.0.2. What is in the Guide

A.0.2.1. STATISTICS IN DEVELOPMENT

Part B: Statistics in Development looks at why and how statistics enter the development process and how to read and check data.

Chapter B.1 Statistics for development cooperation, explains the increased demand for development statistics from a global policy perspective by examining the international initiatives that focus on performance measurement and results-based policymaking. The initiatives covered are:

- Sustainable Development Goals;
- National Development Strategies and the need for statistics;
- Global Partnership for Effective Development Co-operation;
- Cape Town Global Action Plan for Sustainable Development Data;

The discussion of the European Consensus on Development and budget support places the global initiatives in a European context.

The outcome of these policy initiatives is increased demand for:

- indicators to measure progress toward policy goals,
- indicators to inform the preparation, monitoring and evaluation of individual policies and instruments,
- indicators to prepare, monitor and evaluate development actions.

Many, probably the majority, of these indicators are based on statistics.

Chapter B.2 How statistics are made, gives a minimally technical intrduction to the production of statistics. Official statistics is a public good, consisting of data published by government agencies or by regional and international organisations such as the UN, together with explanations of how the data were compiled (metadata). The chapter looks at:

- the fundamental principles of statistics: what makes for useful data and legal framework for statistics;
- the process of statistics operations from analysis and design to dissemination of results;
- the institutional framework: the national statistical system and how it relates to users of statistics;
- the role of regional and international organisations in producing statistics and in standardising concepts and methods;
- new sources of data, including Big Data and Open Data;
- communication and visibility of official statistics.

Chapter B.3 Statistics and indicators in the European Commission development aid process, examines the indicators used to inform policies. It places the various types of indicators used by the European Commission in the context of their use at each stage in the programming cycle and in reporting to provide visibility and accountability.

Chapter B.4 Statistics across policy sectors focuses on international policy-related indicators:

- Sustainable Development Goals (SDG) indicators;
- Indicators commonly used by IMF and the World Bank Group in cooperation with low-income countries;

The chapter also provides a cross-reference between the European Commission's policy sector definitions and statistical activities, linking to the sector statistics chapters contained in the four Thematic Volumes of the Guide (Part D in previous edition of the Guide).

A.0.2.2. SUPPORT FOR STATISTICS

Part C: Support for Statistics considers when and how the European Commission needs to act to ensure that statistics are available to support its development goals. Part C is more applied and 'hands on' than Part B.

Chapter C.5 How to decide on a statistical action, considers support actions for statistical capacity and/or strengthening the demand for statistics. The chapter starts with a presentation of 'quality' in statistics: what should a developing country's statistical system be able to provide for its users? It then considers how to evaluate a country's statistics and the system that produces them. In passing, it explains how to construct the Commission's standard data tables.

The chapter presents key developments in organisation of statistical operations and processes over recent years, including the Generic Statistical Business Process Model (GSBPM), the Generic Activity Model for Statistical Organisations (GAMSO), the Generic Statistical Information Model (GSIM), the Common Statistical Production Architecture (CSPA) and the Common Statistical Data Architecture (CSDA).

Chapter C.6 How to bring assistance to statistics, provides guidance on whether and how to give support to statistics. It discusses the relationship of statistics strategy with national development and poverty reduction strategies and analyses the development and implementation of statistics strategies. The chapter also discusses capacity development (CD) in statistics, covering the link to statistical strategy documents and practical considerations, and linking to the Capacity Development 4.0 approach of PARIS21.

Having looked at what is to be done, the chapter moves on to examine how statistics actions in general should be set up. Coordination at various levels is addressed: who can do what and what needs to be done to ensure coherence and eliminate duplication?

Chapter C.7 The European Commission's support to statistics, starts at the point when the development partners accept that there is a need for external support to statistics. The chapter aims to inform the decision about whether and how the European Commission should be involved. It first considers the Commission's development statistics activities in the context of country / regional strategies and programmes, including any statistics strategy. It continues by looking at the purpose of statistics actions and how they are linked to the development objectives using the logical

framework. The chapter finishes with a practical look at the various types of European Commission statistics interventions, showing links with policies, identifying areas of cooperation, listing examples and providing action points.

Chapter C.8 How to manage statistics actions, starts at the decision that a European Commission statistics intervention is justified to achieve the goals agreed with its development partners. This chapter presents guidance on how to prepare actions to support statistics capacity building and major statistical projects. It provides practical advice for preparing and evaluating terms of reference at each stage of the programme cycle.

A.0.2.3. STATISTICS FOR DEVELOPMENT POLICIES

In this edition of the Guide, the previous Part D 'Statistics for Policy Issues' has been separated into four thematic volumes, generally following the main structure of the Agenda 2030 and the SDGs, as well as the updated European Consensus on Development:

- Volume 1: SDG and sustainable development indicators
- Volume 2: Population and social statistics
- Volume 3: Economic statistics
- Volume 4: Environment and climate change

These thematic volumes contain sector chapters covering the following statistical domains:

Volume 1: SDG and sustainable development indicators

- SDG and sustainable development indicators

Volume 2: Population and social statistics

- Justice and crime statistics
- Living conditions and poverty statistics
- Population and migration statistics
- Education statistics
- Health statistics
- Labour market statistics (including Labour Force Survey)

Volume 3: Economic statistics

- International trade in goods and Balance of Payments
- National Accounts (including GDP), economic accounts and the non-observed economy
- Price statistics
- Business statistics
- Transport statistics
- Government finance and public sector statistics
- Income and consumption statistics

Volume 4: Environment and climate change

- Environment statistics
- Energy statistics
- Agriculture, forestry and fisheries statistics

The individual sector statistics chapters look at how statistics can be used and supported for decision-making and monitoring achievements in the context of the European Commission's development policy priority areas.

Each chapter follows a more or less standard structure, presenting statistics in the context of sector policies, followed by information on their use, quality analysis and any support required. The chapter structure is as follows:

1. Policy applications and the statistics to inform them;
2. Concepts and definitions;
3. Sources of data and metadata;
4. Analysing data quality and identifying problems;
5. Key issues for building or improving a statistical system in the sector.

A.0.3. HOW TO READ THE GUIDE

The aims of this Guide to statistics in European Commission development cooperation are:

- To present the material in a logical order, so that the Guide to statistics in European Commission development cooperation can be read like a manual;
- To keep the technical language and specialised statistical vocabulary to a minimum;
- To provide current references to further technical information, best practices and examples. These references are generally provided as active hyperlinks in the 'To find out more' boxes;
- To help users with specific questions to easily find the information required.

In order to make the user's task easier, there are text boxes at the start and end of each chapter. The chapter in brief box starts each chapter and provides a summary of one to two paragraphs. Most sections and each sector chapter end with a 'To find out more' box, which provides references, hyperlinks and supporting information for further research.

The table of contents is provided in detail so that most key issues can be found easily. Hyperlinks are also provided to Eurostat's Concepts and Definitions Database (CODED) and OECD's Glossary of Statistical Terms, as well as to the International Statistical Institute's (ISI) Multilingual Glossary of Statistical Terms.

The Guide is prepared primarily to be used as an electronic document to be disseminated in PDF format. To navigate through the text and find related information, the user can simply click on the interactive links from the Table of Contents. To consult external references over the Internet, the user just has to click on the hyperlinks in the 'To find out more' boxes. The user may also use the normal 'search' facility for PDF documents to find the information of interest, searching on specific keywords or key terms.

To find out more…

These boxes, provided at the end of most sections, summarise reference documents and in most cases give hyperlinks to them, e.g.:

- Eurostat's Concepts and Definitions Database (CODED)
- OECD's Glossary of Statistical Terms
- International Statistical Institute's (ISI) Multilingual Glossary of Statistical Terms
- European Consensus on Development
- Conference of European Statisticians: Classification of Statistical Activities (CSA)

A.0.4. HOW THE GUIDE IS DEVELOPED

- The Guide is being further developed to support its users in their work. Your views are therefore sought on its future. You are encouraged to provide your comments and suggestions on the Guide by e-mail to Eurostat's Unit 'Enlargement, neighbourhood and development cooperation'.
- Compared to the previous edition, the current edition of the Guide has been updated according to comments from users, the intensified efforts towards modernisation, increased efficiency and coordination in official statistics, as well as key developments in international statistical cooperation and development cooperation brought on by the Agenda 2030 and the efforts to achieve the Sustainable Development Goals.
- A major change in the structure of the Guide is the creation of the four separate thematic volumes, containing the sector statistics chapters that were featured in Part D in previous editions of the Guide. While the sector statistics chapters on 'Regional and small area statistics', 'Income and consumption statistics' and 'Social protection statistics' have been omitted from this edition, a completely new chapter on 'Energy statistics' has been added. Specific issues that have been introduced in this edition of the Guide include:
- Key initiatives for statistical capacity development in developing countries, initiatives concerning the harnessing of the data revolution, as well as other initiatives aimed at supporting the production and dissemination of quality data for the Sustainable Development Goals indicators. This includes the Capacity Development 4.0 initiative, the United Nations World Data Forum, the Cape Town Global Action Plan for Sustainable Development Data (CTGAP) and the Dubai Declaration supporting the Implementation of the Cape Town Global Action Plan;
- The Addis Ababa Action Agenda of the Third International Conference on Financing for Development, establishing a strong foundation to support the implementation of the 2030 Agenda for Sustainable Development;
- The new European consensus on development, adopted in 2017 as part of the European Union's response to the UN 2030 Agenda for Sustainable Development and the Sustainable Development Goals;
- Innovations and key developments in the organisation of statistical operations and processes over recent years, including the Generic Statistical Business Process Model (GSBPM), the Generic Activity Model for Statistical Organisations (GAMSO), the Generic Statistical Information Model (GSIM), the Common Statistical Production Architecture (CSPA) and the Common Statistical Data Architecture (CSDA);
- Within the framework of the Data Revolution, the emergence of new data sources such as Big Data and Open Data, as well as new techniques, technologies and approaches for surveys;
- Communication and visibility of official statistics;
- A number of other development policy and sector specific developments;
- The hyperlinks to references, further information and other resources have been maintained and updated. Relevant hyperlinks are collected in the many 'To find out more' boxes throughout the Guide.

To find out more…

- Please send comments, suggestions or requests for information on the Guide to: estat-statistical-cooperation@ec.europa.eu
- Eurostat's website, section on International cooperation: https://ec.europa.eu/eurostat/web/international-cooperation/overview
- Eurostat's 'Statistics Explained' portal, section on statistical cooperation with non-EU countries: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Non-EU_countries

B Statistics in development

B.1 Statistics for development co-operation

B.1. Statistics for development co-operation

The chapter in brief

This chapter explains the increasing need for statistics in developing countries, examining the international initiatives which focus on development efficiency, performance measurement and results-based policy making. The chapter begins with the global approaches, covering the 2030 Agenda and the Sustainable Development Goals. It describes the development of initiatives focusing on aid efficiency and effective development. The discussion of the renewed European Consensus on Development places the global initiatives in a European context. Finally, the chapter also covers the principles and modalities of European Union budget support to partner countries.

B.1.1. The Sustainable Development Goals

The Millennium Declaration was signed in September 2000, committing the 189 signatory nations to work together to achieve eight Millennium Development Goals (MDG). The MDG provided the agreed overall aims of development policy, to be reached by 2015. The progress towards these targets was assessed through 21 quantifiable targets with 60 linked statistical indicators, developed by the Inter-Agency Expert Group on MDG indicators (IAEG). These indicators enabled regular monitoring of progress toward the MDG targets at national and global level. The MDG monitoring framework was innovative in that it brought measurement of outcomes and comparison of these across countries into the centre of development policy and practice. Making these measurements and drawing valid comparisons and conclusions are considerable challenges to statistics in developing countries.

The 17 Sustainable Development Goals (SDG) were adopted at the UN Sustainable Development Summit 25–27 September 2015 in New York, under the title "Transforming our world: the 2030 Agenda for Sustainable Development". The SDGs focus on areas of critical importance for humanity and the planet, summarised in the following main headings:

- **People:** ending poverty and hunger;
- **Planet:** protection of the planet for future generations;
- **Prosperity:** ensuring that all human beings can enjoy a prosperous and fulfilling life in harmony with nature;
- **Peace:** societies free from fear and violence respecting human rights;
- **Partnership:** strengthening the spirit of global solidarity with the participation of all countries, all stakeholders and all people.

To monitor the progress towards the 17 SDGs and their 169 targets, a both robust and simple global monitoring framework was needed. The Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs) proposed a global monitoring framework for the SDGs, which was agreed by the UN Statistical Committee in March 2016. The list of SDG indicators is subject to annual refinements and more comprehensive reviews in 2020 and 2025. At the time of writing, there are 231 unique SDG indicators. Eight of these indicators provide information for monitoring of two different SDG targets, while four indicators provide information for three different SDG targets. Thus, the total number of indicators listed in the full global indicator framework is 247

Each of the indicators are assigned to a custodian agency, in some cases to two or more co-custodians. These custodians are generally UN bodies or, in some cases, other international organisations who are responsible for compiling and verifying data from the reporting countries. In order to assure comparability across countries and regions, the custodian agencies are also responsible for developing standards and monitoring methodologies, and for strengthening national capacities for monitoring and for reporting data. In some cases, the custodian needs to produce estimates, e.g. when data are missing, inconsistent or compiled using a deviating methodology. All data are validated and approved by the countries before being transmitted to the UN Statistics Division and included in the Global SDG Indicators Database. The SDG indicators database also provides metadata for the different indicators.

Data are produced by national statistical systems, ensuring national ownership. Countries are asked to strengthen collection of baseline data in order to better measure progress for each of the SDGs. A core element of the global indicator framework is the disaggregation of data and the coverage of particular groups of the population, in order to fulfil the main principle of the 2030 Agenda of "leaving no one behind", e.g. by gender, by age group or by rural versus urban population. Thus, statistical capacity building is essential for national statistical systems to meet the demands of the 2030 Agenda.

A key portal for information on the SDG global monitoring framework is the UN Statistical Division's Sustainable Development Goal indicators website: https://unstats.un.org/sdgs/. It contains the Global SDG Indicators Database, together with the metadata repository for the indicators and the work programme of the IAEG-SDGs. It also provides an overview over relevant events, an E-Handbook on the SDG indicators aimed at national statisticians, as well as information from custodian agencies on their data collection processes and a focal point for each indicator.

For further and more detailed information the SDGs and the indicators to measure progress towards them, have a look at Thematic Volume 1 'Sustainable Development Goals and indicators' of this Guide and the relevant websites of the UN Statistics Commission and UN Statistics Division (see the following 'To find out more' box).

To find out more…

about Sustainable Development Goals and SDG indicators:

- UN Resolution 66/288 (2012) "The future we want": https://undocs.org/A/RES/66/288
- UN Resolution 70/1 (2015) "Transforming our world: the 2030 Agenda for Sustainable Development: https://sdgs.un.org/goals
- The Sustainable Development Goals: https://sustainabledevelopment.un.org/sdgs
- The Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs): https://unstats.un.org/sdgs/iaeg-sdgs/
- Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) to the 47th session of the UN Statistical Commission (including list of proposed SDG indicators): https://undocs.org/A/RES/71/313
- UN Statistical Division's SDG Indicators website: https://unstats.un.org/sdgs/
- The Global SDG Indicators Database: http://unstats.un.org/sdgs/indicators/database/
- The SDG Indicators metadata repository: http://unstats.un.org/sdgs/metadata/
- The E-Handbook on SDG Indicators: https://unstats.un.org/wiki/display/SDGeHandbook/Home
- European Commission - DG International Partnerships: Sustainable Development Goals

B.1.2. Aid efficiency and effective development

B.1.2.1. MANAGING FOR DEVELOPMENT RESULTS

The Monterrey Conference on Financing for Development (2002) called for "better measuring, monitoring and managing for results". To achieve this, reliable and relevant data are needed. The objectives of the meeting were to ensure that aid would be used as effectively as possible and that aid could be demonstrated to have an impact on policy objectives. The 'Managing for development results' approach was therefore developed as a "a management strategy focused on development performance and on sustainable improvements in country outcomes". It provided a framework for development effectiveness in which performance information is used for improved decision-making.

Box 1.1: Results chain in results-based management

Impact	The higher-order objective to which a development intervention is intended to contribute;
Outcome	The likely or achieved short-term and medium-term effects of an intervention's outputs;
Output	The products, capital goods and services which result from a development intervention; may also include changes resulting from the intervention which are relevant to the achievement of outcomes;
Activity	Actions taken or work performed through which inputs (such as funds, technical assistance and other types of resources) are mobilized to produce specific outputs;
Inputs	The financial, human and material resources used for the development intervention.

Source: OECD/DAC "Glossary of Key Terms in Evaluation and Results Based Management" (2002)

To better manage their development processes towards desired outcomes, developing countries should adopt results-based approaches to public sector management, building national capacity for results-based monitoring and evaluation (M&E) and strengthening statistical capacity. Effective M&E shows the extent to which specific activities or programs contribute to achieving national outcomes.

In general, **statistical capacity** governs the ability to collect and use statistics to feed into the M&E system. Building public sector capacity to collect and use statistical data empowers countries as they seek to exercise stronger public management leadership.

The "Managing for Development Results" initiative identified the **need for improved statistics** and so **brought demand for statistics into the mainstream of development planning**. The outcome was the Marrakech Action Plan for Statistics (MAPS), agreed at the Marrakech Roundtable on Managing for Development Results (2004). The conclusions of the Marrakech Roundtable was a key input to the principles on development progress of the Paris Declaration on Aid Effectiveness (2005).

Box 1.2: The Marrakech Action Plan for Statistics

The Marrakech Action Plan for Statistics (MAPS) defined six key actions to support statistics systems, so that they could provide the data needed. These key actions were:

1. Promote **strategic planning** for developing statistical systems
2. Prepare for the **2010 census round**
3. **Increase investment** in statistical systems
4. Set up an international network to better coordinate **support for household surveys**
5. Make **immediate improvements in key areas**, especially the MDGs
6. **Improve coordination** and accountability of the international statistical system

Several important international initiatives have been rooted in the MAPS action points:

- National strategies for the development of statistics (NSDS) were incorporated into strategic planning processes, with PARIS21 promoting dialogue and advocacy for statistics and coordinating the development and implementation of the NSDS methodology.
- The World Population and Housing Census Programme was set up, providing a knowledge base and resource centre. Censuses are primary data sources for inclusive socioeconomic development and environmental sustainability and for disaggregated data. Censuses are key to measuring progress towards the 2030 Agenda for Sustainable Development, providing data by income, sex, age, race, ethnicity, migratory status, disability and geographic location, etc.
- A concerted approach for scaling up statistical capacity building, consisting of a 'sector-wide' approach to statistics combined with pooled donor funding. A set of international financing instruments was established, mainly focused on supporting development and implementation of NSDS and of statistical capacity development.
- The International Household Survey Network (IHSN) was set up to improve the availability, quality and use of survey data in developing countries, providing improved international coordination, harmonised technical and methodological guidelines and guidelines and best practices for survey implementation. In addition, the Accelerated Data Program (ADP) was created to help countries improving their survey programs and increasing the use and value of survey data, providing technical and financial support to documentation and dissemination, as well as for improving national survey methods.
- A variety of organisations were engaged in training and in monitoring statistical capacity in connection with the MDGs. These activities to build and improve a global monitoring framework for development policies and strengthen statistical capacity were taken further in the SDG monitoring framework. The 'High-Level Group for Partnership, Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development' (HLG-PCCB) provides strategic leadership for statistical monitoring and reporting in the SDG implementation process. The UN Statistical Commission has also initiated the UN World Data Forum on Sustainable Development Data as a platform for intensifying cooperation between IT specialists, geospatial information managers, data scientists, and users, as well as civil society stakeholders.
- An increased focus on the accountability for the international statistical system, including the transparency and predictability of funding for statistical capacity development on developing countries. The PARIS21 Partner Report on Support to Statistics (PRESS) provides details of donor support to statistics.

The Paris Declaration on Aid Effectiveness (2005) stated five fundamental principles for making aid more effective:

- **Ownership:** Developing countries set their own strategies for poverty reduction, improve their institutions and tackle corruption.
- **Alignment:** Donor countries align behind these objectives and use local systems.
- **Harmonisation:** Donor countries coordinate, simplify procedures and share information to avoid duplication.
- **Results:** Developing countries and donors shift focus to development results and results get measured.
- **Mutual accountability:** Donors and partners are accountable for development results.

The Accra Agenda for Action (AAA) (2008) aimed at accelerating progress towards the objectives laid down in the Paris Declaration. It further strengthened donors' commitment to working through national systems in recipient countries and increasing transparency and predictability, with conditions based on the developing countries' own development. Developing countries committed to strengthen the quality of policy design, implementation and assessment by improving co-ordination and linkage of various sources of information, including national statistical systems, budgeting, planning, monitoring and evaluations of policy performance.

In 2011, the Fourth High Level Forum on Aid Effectiveness in Busan, Korea, noted the need for transparent, country-led and country-level results frameworks, based on a manageable number of output and outcome indicators. The Busan HLF endorsed a new action plan for statistics, the 'Busan Action Plan for Statistics' (BAPS), building on the success of the Marrakech Action Plan for Statistics.

The Busan Action Plan for Statistics encouraged a co-ordinated, system-wide approach to statistical capacity development. The aim was to establish sustainable statistical systems that produce high-quality statistics that could be maintained through national resources (and, where needed, by additional external resources). The Busan Action Plan for Statistics proposed five broad actions to produce sustainable improvements in statistical capacity:

- Strengthen and re-focus national and regional statistical strategies with particular emphasis on improving statistical systems that address country-level development priorities.
- Implement standards for data preservation, documentation, and dissemination that permit broader public access to statistics.
- Develop programs to increase the knowledge and skills needed to use statistics effectively for planning, analysis, monitoring, and evaluation, thus increasing transparency and accountability and improve accessibility of statistics.
- Build and maintain results monitoring instruments to track outcomes of all global summits and high level forums. Outcome documents should specifically recognize the need for statistical capacity development, including technical assistance, training, and financial support.
- Ensure financing for statistical information is robust and that funding instruments and approaches reflect the new modalities and actors in development finance.

The Addis Ababa Action Agenda (AAAA) was the outcome of the 2015 Third International Conference on Financing for Development, held in Addis Ababa, Ethiopia. The agreement is a follow-up to the Monterrey Consensus (2002) and the Doha Declaration on Financing for Development (2008). It provides concrete measures to finance sustainable development and a global framework to align financing flows and policies with economic, social, and environmental priorities. The Addis Agenda is closely aligned with and complimentary to the 2030 Agenda for Sustainable Development, outlining ways for raising the financial resources required to achieve the Sustainable Development Goals. The Addis Agenda is described in more detail in section B.1.2.3.

B.1.2.2. GLOBAL PARTNERSHIP FOR EFFECTIVE DEVELOPMENT COOPERATION

The Busan HLF also set out a new framework for increasing the quality of aid, the Global Partnership for Effective Development Co-operation (GPEDC). Although the core function of the Global Partnership is to ensure political level accountability, there is a strong focus on results, on sustainable development, and on enhancing developing countries' capacities, aligned with the priorities and policies set out by developing countries themselves.

The final meeting of the Working Party on Aid Effectiveness in 2012 endorsed the mandate and governance of the Global Partnership and the global monitoring framework. The meeting also endorsed a common open standard for publication of information on development cooperation resources, bringing together the existing standards of the International Aid Transparency Initiative (IATI) and the standards of the OECD Development Assistance Committee (DAC).

The main aim of the Global Partnership is to "maximise the effectiveness of all forms of co-operation for development for the shared benefits of people, planet, prosperity and peace." It brings together governments, bilateral and multilateral organizations, civil society, the private sector and representatives from parliaments and trade unions among others, who are committed to strengthening the effectiveness of their partnerships for development and the 2030 Agenda.

The OECD Secretariat and the UNDP provide a joint support team to the Global Partnership both at the global and country levels. The key activities are related to monitoring and analysis of evidence as well as to supporting country level accountability frameworks, the latter particularly through UNDP country offices.

The global monitoring framework is comprised of ten indicators. Five are measured using information collected from individual developing countries and aggregated to offer a global overview of progress, while the remaining five indicators rely on other existing global processes or desk reviews. The approach relies on information collected through country level accountability frameworks and existing global datasets. Participation in the global monitoring is voluntary; however, all development stakeholders are encouraged to participate in it.

The global monitoring framework indicators focus on some key commitments: country results frameworks, enabling environment for civil society, engagement of private sector, transparency, predictability, aid as part of national budgets approved by parliaments, mutual accountability frameworks, gender equality, effective institutions (including quality and use of country systems) and untied aid. The Global Partnership's monitoring framework provides evidence to SDG follow-up of SDG Targets 17.15 'Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development', 17.16 'Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries', and 5c 'Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels'.

B.1.2.3. FINANCING FOR DEVELOPMENT

The financing needed to achieve the 2030 Agenda for Sustainable Development are very large, but it is not impossible to raise the necessary funding through global public and private investment. However, this presupposes that these financial resources are invested in and aligned with sustainable development. This requires a comprehensive approach, which mobilises public finance and sets appropriate public policies and regulatory frameworks.

The Addis Ababa Action Agenda (AAAA) was the outcome of the 2015 Third International Conference on Financing for Development, held in Addis Ababa, Ethiopia. The agreement is a follow-up to the 2002 Monterrey Consensus and the 2008 Doha Declaration on Financing for Development.

The Addis Ababa Action Agenda provides:

- A comprehensive set of policy actions by Member States, with a package of over 100 concrete measures to finance sustainable development, transform the global economy and achieve the Sustainable Development Goals.
- A new global framework for financing sustainable development that aligns all financing flows and policies with economic, social and environmental priorities and ensures that financing is stable and sustainable.

The Addis Agenda draws upon all sources of finance, technology and innovation, promotes trade and debt sustainability, harnesses data and addresses systemic issues. It sets out a global framework that seeks to align financing flows and policies with economic, social, and environmental priorities.

The Addis Agenda defines seven Action Areas:

- Domestic public resources
- Domestic and international private business and finance
- International development cooperation
- International trade as an engine for development
- Debt and debt sustainability
- Addressing systemic issues
- Science, technology, innovation, and capacity building

It also contains a section on data, monitoring and follow-up.

The Addis Agenda policy framework realigns financial flows with public goals. Official development assistance (ODA) remains crucial, particularly for countries most in need.

However, public aid will not be sufficient to reach the SDGs. The Addis Agenda addresses all sources of finance: public and private, domestic and international. It acknowledges that finance is not limited to financing flows, but also depends on public policies that strengthen the national and international investment environments. The Addis Agenda underlines that countries themselves have the primary responsibility for their economic and social development, while committing the international community to create an enabling environment for their development.

The Addis Agenda was adopted shortly before the 2030 Agenda for Sustainable Development. It specifically states that one of the tasks of the Addis Ababa conference was "to further strengthen the framework to finance sustainable development and the means of implementation for the universal post-2015 development agenda". The 2030 Agenda states "The Addis Ababa Action Agenda supports, complements, and helps contextualize the 2030 Agenda's means of implementation targets.

The Addis Agenda outlines public policies and regulatory frameworks to encourage private investments that support the SDGs. It highlights the importance of long-term investment and of all financing to be aligned with sustainable development. It discusses how public finance can contribute and highlights the role of national and international development banks

Box 1.3: Action initiatives of the Addis Ababa Action Agenda

The Addis Ababa Action Agenda includes several new commitments by Governments. These include:

A new social compact to provide social protection and essential public services for all

Over 2.4 billion people still lack access to clean water and sanitation, 57 million of the world's children are not enrolled in school, and more than half the world's population lacks any social security coverage. As part of a new social compact, Governments commit to provide fiscally sustainable and nationally appropriate social protection systems, including social protection floors. Governments are also encouraged to set nationally appropriate spending targets for quality investments in essential public services for all, including health, education, energy, water and sanitation. To this end, Governments agree to mobilize additional domestic public resources. At the same time, the international community commits to strong international support for these efforts.

A global infrastructure forum to bridge the infrastructure gap

Financing needed for basic infrastructure investment in developing countries is estimated to be between $1 trillion and $1.5 trillion annually. To address this financing gap, Member States agree to launch a global infrastructure forum, building on and better coordinating existing infrastructure initiatives. The forum will encourage a wider range of voices to be heard, particularly from developing countries. It will identify and address infrastructure and capacity gaps, with the aim to ensure that no country or sector is left behind, and that the commitment to the social and environmental dimensions of sustainable development is respected.

An 'LDC package' to support the poorest countries

While official development assistance (ODA) has risen, the share allocated to least developed countries (LDCs) has fallen by 16 per cent last year. As part of the Action Agenda, developed countries commit to reverse this trend. The Action Agenda further encourages them to increase the target for ODA to the world's poorest nations to 0.2 per cent of national income, with the European Union promising to do so by 2030. Countries also agree to adopt or strengthen LDC investment promotion regimes, including with financial and technical support. In addition, Governments aim to operationalize the technology bank for the LDCs by 2017.

A Technology Facilitation Mechanism to advance to the SDGs

The Action Agenda recognizes that the technology divide across a wide range of economic sectors and makes it difficult for developing countries to achieve sustainable development. To help facilitate development, transfer and dissemination of technologies relevant for achieving the SDGs, Member States agree to establish a Technology Facilitation Mechanism, consisting of a United Nations Interagency Task Team, an annual collaborative Multi-stakeholder Forum on Science, Technology and Innovation for the SDGs, and an on-line platform.

Enhanced international tax cooperation to assist in raising resources domestically

Additional tax revenues are required to deliver the new social compact and finance sustainable development. Both improved domestic tax administration and strengthened international tax cooperation are essential to ensure that adequate finance is available. To aid in these efforts, countries agree to strengthen capacity building, including through ODA. They also agree to support existing international initiatives for tax cooperation, with a focus on increased participation of developing countries. In this regard, Member States agree to strengthen the United Nations Committee of Experts on International Cooperation in Tax Matters.

Mainstreaming women's empowerment into financing for development

While significant progress has been achieved in advancing gender equality in the MDG era, for example in primary school enrolment and access to healthcare for women and girls, more remains to be done. There are significant differences in pay for equal work, women remain underrepresented in government, and violence against women remains unacceptably common. The Action Agenda integrates gender considerations across all of its chapters. It emphasizes the importance of women's and girls' human rights and also stresses that women's empowerment can make a significant contribution to economic development for all. It commits countries to undertake legislation and administrative reforms to give women equal rights, and promotes gender-responsive budgeting and tracking among other measures.

Additional cross-cutting issues in the Action Agenda include scaling up efforts to end hunger and malnutrition, promoting inclusive and sustainable industrialization, full and productive employment and decent work for all, peaceful and inclusive societies, and protecting our ecosystem. The AAAA draws upon a broad range of financing and technological modalities and combinations of modalities, as well as promising new areas of international cooperation, to promote the delivery of the SDGs and the 2030 Agenda for Sustainable Development. It highlights a set of broad initiatives whose policy content is elaborated in more detail in the ensuing chapters.

Source: United Nations Department of Economic and Social Affairs (DESA): Financing sustainable development and developing sustainable finance - A DESA Briefing Note on the Addis Ababa Action Agenda (2015)

B.1.2.4. REGIONAL STRATEGIC DEVELOPMENT IN AFRICA AND THE IMPORTANT ROLE OF STATAFRIC

At the African level, processes for promoting managing for results and the development of statistics capacity are well established. Since the 1990s, with the 1990 Addis Ababa Plan of Action for Statistical Development (AAPA), development of the capacity to produce, disseminate and use statistics has been a central theme. The evaluation of the AAPA in 2000 and the evaluations national statistics systems of African Union (AU) member states that followed led the way towards the development of the Reference Regional Strategic Framework for Statistical Capacity Building in Africa (RRSF) as a regional implementation framework for the Marrakech Action Plan for Statistics (MAPS) in 2006, the establishment of the Statistical Commission for Africa (STATCOM-Africa) in 2007 and the development of National Strategies for the Development of Statistics (NSDS) in the following years.

Further important milestones for the African Statistical System (ASS) were the adoption of the African Charter on Statistics (ACS) in February 2009 in Addis Ababa, Ethiopia, and the Strategy for the Harmonisation of Statistics in Africa (SHaSA) in July 2010 in Kampala, Uganda. The African Charter on Statistics provides a framework for development of policies and good practices for the development, production and use of statistics, in line with the UN Fundamental Principles for Official Statistics and other international principles and good practices. Accompanying this, the SHaSA was developed to guide the harmonisation of statistics in AU member states in areas such as concepts and definitions, adaptation of international or peer-agreed good practices (such as quality frameworks) and use of common methodologies for the production and dissemination of statistics. The purpose of the first version of SHaSA was to facilitate comparisons of statistics of AU member states across time through coordination and collaboration of national, regional and international stakeholders.

The revised Strategy for the Harmonization of Statistics in Africa (SHaSA 2) covers the period 2017-2026. It was adopted in January 2018 in Addis Ababa, Ethiopia. SHaSA 2 responded to the growing demand for quality and up-to-date statistics for planning, monitoring and evaluation of Agenda 2063 and for the SDGs.

The African Statistics Day is an annual event celebrated on 18 November to raise public awareness of the importance of statistics in all aspects of social and economic life, highlighting that statistics remain a key element in the implementation of the development agenda and remain at the heart of the implementation of the African Union's 'Agenda 2063: the Africa we want'. On this day, the main actors of the African statistical system discuss the main themes for the development and harmonization of statistics in Africa.

The Africa-EU Strategic Partnership is the formal channel through which the European Union and the African continent work together. It is based on the Joint Africa-Europe Strategy adopted by Heads of State and Government at the second EU-Africa Summit in 2007.

Eurostat is involved in the implementation of large, multi-annual EU financed statistical capacity building programme aimed at strengthening the ability to produce good quality official statistics. Through the Pan African Statistics (PAS) programme, Eurostat assists the African Union Commission (AUC) to develop its statistical capacity at the African continental level. PAS was launched in 2016 as part of the broader Pan African Programme, in view of developing institutional and statistical capacity in the African Statistical System (ASS). The objectives of the programme build on the Strategy for the Harmonisation of Statistics in Africa 2 (SHaSA 2) and the African Charter on Statistics. The aims of the renewed Pan African Statistics Programme (PAS II), covering the period 2021-2025, PAS II are to continue to support African integration by strengthening the ASS, ensure the use of quality statistical data in the Africa integration decision-making process and policy monitoring and translate continental priorities at regional and national level. PAS II covers interventions at three levels: continental; regional; national. The support is delivered through online support, technical support missions, expert secondments, shadowing opportunities (e. g. NSI to Africa, Africa to NSI), training and supporting material, provision of reusable solutions (e. g. data visualisations and digital publications). The implementation is flexible, through annual work programmes, and can thus quickly respond to important developments.

In 2013, the African Union decided to establish an African Union Statistical Institute (STATAFRIC) based in Tunis. The institute is at the centre of the promotion and production of harmonized official statistics in Africa. The Institute is an outcome of SHaSA's Strategic Objective 2 'To establish an effective coordination mechanism' of Strategic Theme 2 'To coordinate the production of quality Statistics for Africa'. STATAFRIC supports implementation of the provisions of SHaSA and the Charter. PAS II provides technical support to STATAFRIC. Support has been given among others for the update of the Strategic Plan for 2019-2023 in view of the Agenda 2063, SHaSA 2, the 2030 Agenda and other key strategies and agendas, as well as for a proposed roadmap to establish an action plan, a staffing strategy and a work programme for STATAFRIC.

Box 1.4: Example: Kenya Vision 2030 implementation and M&E matrix

The Kenya Vision 2030 Program is Kenya's long-term development strategy, covering the period from 2008 to 2030. It aims to transform Kenya into, "*an industrialised upper middle income country offering a high quality of life to all its citizens by 2030*".

The Vision 2030 is implemented through successive five-year Medium Term Plans. The first Medium Term Plan (MTP I) covered the period 2008-2012, The second (MTP II) the period 2013-2017 and the third (MTP III) the period 2018-2022.

The MTP III prioritises policies, programmes and projects which will support the implementation of the "Big Four" initiatives:

- Raise the share of manufacturing sector to 15 per cent of GDP;
- Ensure that all citizens enjoy food security and improved nutrition by 2022;
- Achieve universal health coverage;
- Deliver at least five hundred thousand affordable housing units.

The implementation of the "Big Four" initiatives also aim to contribute to broad based inclusive sustainable economic growth, faster job creation and reduction of poverty and inequality.

The MTP III has mainstreamed and will implement the 17 Sustainable Development Goals (SDGs) as outlined in the United Nations 2030 Agenda for Sustainable Development. It is also aligned to African Union's Agenda which constitute the strategic framework for socio-economic transformation of the African continent by the year 2063.

The Kenya Vision 2030 framework is based on a 3-pillar structure:

- Economic pillar: "Moving the economy up the value chain"
- Social pillar: "Investing in the people of Kenya"
- Political pillar: "Moving to the future as one nation"

In addition, the MTP III covers the thematic areas HIV and AIDS and Climate change. The plan also specifically defines the statistical reforms and surveys to be carried out in the 5-year period covered.

In its Annex I, the MTP III provides the implementation matrix, outlining for each main programme or project within the different pillars and themes:

- Objectives
- Expected Output/Outcome
- Performance indicator(s)
- Implementing agencies
- Timeframe
- Source of funding
- Indicative budget (Total and by year)

For monitoring and evaluation of these programmes and projects, Annex II provides the details of each of the Performance indicators:

- Unit of measure
- Baseline (value 2016/2017)
- Mid-term projection (projected value 2020)
- End-term projection (projected value 2022)

Sources: Kenya Vision 2030 and the Kenya Vision 2030 Third Medium Term Plan (2018-2022): Transforming Lives: Advancing socio-economic development through the "Big Four"

To find out more…

International initiatives for the development of statistics

- OECD Development Assistance Committee (DAC) Joint Venture on Managing for Results: Sourcebook
- Marrakech Action Plan for Statistics (2004)
- Paris Declaration on Aid Effectiveness (2005) and the Accra Agenda for Action (2008)
- PARIS21: Dakar Declaration on the Development of Statistics (2008)
- Busan High Level Forum on Aid Effectiveness: Busan Action Plan for Statistics (2011)
- UN World Data Forum: Cape Town Global Action Plan for Sustainable Development Data (2017)
- UN World Data Forum: Dubai Declaration supporting the implementation of the Cape Town Global Action Plan for Sustainable Development Data (2018)
- UN World Data Forum: The Road to Bern – UN World Data Forum 2021 (website)

Financing for development

- United Nations Statistics Division (UNSD): Financing for Sustainable Development (website)
- Addis Ababa Action Agenda (2015)
- United Nations Department of Economic and Social Affairs (DESA): Financing sustainable development and developing sustainable finance - A DESA Briefing Note on the Addis Ababa Action Agenda (2015)
- World Bank's Development Data Group: Statistical capacity building (website)
- Bern Network on Financing Data for Development (website)

Key resources and documents

- International Household Survey Network (IHSN)
- Accelerated Data Programme
- United Nations Population Fund (UNFPA)
- UN Statistics Division: World Programme on Population and Housing Censuses website
- UN Statistics Division: Census Knowledge Base
- PARIS21 - Partnership in Statistics for Development in the 21st Century
- PARIS21: Guidelines for developing statistical capacity – A roadmap for capacity development 4.0
- European Commission - DG International Partnerships: Development effectiveness

Mainstreaming strategic planning of statistical systems – advocating for statistics

- PARIS21: Advocating for more and better funding of data
- PARIS21: Counting down poverty: The role of statistics in world development
- PARIS21: Measuring Up to the Measurement Problem: The role of statistics in evidence based policy-making

Regional strategies and capacity development in Africa

- African Charter on Statistics
- African Statistics Day (18 November each year)
- African Union: Strategy for the Harmonization of Statistics in Africa (SHaSA) and Strategy for the Harmonization of Statistics in Africa 2017-2026 (SHaSA 2)
- UN Economic Commission for Africa: Statistical Commission for Africa
- African Union: Conference of African Ministers responsible for Civil Registration
- African Union: Pan-African Institute for Statistics (STATAFRIC)
- African Union and European Union: Joint Africa-EU Strategy
- European Commission and European External Action Service's Joint Communication: Towards a comprehensive strategy with Africa (JOIN(2020) 4 final)
- Eurostat: International cooperation – Pan African Statistics Program (PAS) (website)
- Eurostat: Pan African Statistics Programme II, the 9th meeting of the Forum on African Statistical Development (FASDev) 14.12.2020
- Pan African Statistics (PAS) programme: Peer reviews of NSIs/NSSs in African countries: proposed methodology (draft) (2016)
- Pan African Statistics (PAS) programme: Pan African Statistics programme - presentation leaflet
- Africa-EU Partnership: Pan-African Programme (website)
- African Union: Pan-African Institute for Statistics (STATAFRIC) (website)

B.1.3. Support for sustainable development data

B.1.3.1. HIGH-LEVEL GROUP FOR PARTNERSHIP, COORDINATION AND CAPACITY-BUILDING FOR THE 2030 AGENDA

The sustainable development agenda and the global monitoring framework put in place to measure and assess progress towards the SDGs has reinforced the need for relevant data at global level, and thus also for comparable and consistent data at regional and national level on which the global data can be based. However, such data do not come about by themselves. They require international standards and the institutional capacity at national and regional level to compile data in line with these standards.

SDG 17 'Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development' refer directly to capacity building linked to data, monitoring and accountability in developing countries. Within SDG 17, this is specified in Target 17.18 'By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts', as well as in Target 17.19 'By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries'.

In response to this need strengthen statistical capacity development, in particular in developing countries, in 2015 the United Nations Statistical Commission established the High-level Group for Partnership, Coordination and Capacity-Building for the 2030 Agenda (HLG-PCCB). The HLG-PCCB is made up of Chief Statisticians from 22 national statistical offices as representatives for the countries in their respective regions, with rotation every two years. The chair of the UN Statistical Commission is also a member, while representatives of regional commissions and regional and international agencies and others may be invited as issue partners. As of July 2021, two EU Member States (Spain and Poland) are members of the HLG-PCCB. The mandate of the High-Level Group specifically calls for it to establish a global action plan for sustainable development data. In this function, the group should:

A. Provide strategic leadership for the Sustainable Development Goal implementation process as it concerns statistical monitoring and reporting within the framework of the Fundamental Principles of Official Statistics;
B. Promote national ownership of, and foster capacity-building, partnership and coordination for, the follow-up and review system of the 2030 Agenda for Sustainable Development, including to ensure consistency between national and global monitoring and reporting;
C. Recommend priority areas to target funding for statistical capacity-building and advocate for resource mobilization, management and monitoring;
D. Review and make recommendations as appropriate and in cooperation with the Inter-Agency and Expert Group on Sustainable Development Goal Indicators to facilitate modernization and harmonization of data infrastructures and identify ways to leverage the resources and creativity of the private sector;
E. Advise on how to harness the opportunities provided by the data revolution to support the Sustainable Development Goal implementation process, following up on the recommendations of the report entitled "A world that counts: mobilizing the data revolution for sustainable development" by the Secretary-General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development, and taking into account the levels of development of the countries;
F. Promote engagement between the statistical community and other stakeholders working on the implementation and monitoring of globally agreed Sustainable Development Goals and targets;
G. Provide guidance on the content and organization of a world forum on sustainable development data, and lead the efforts of the global statistical community to reach out and cooperate with relevant stakeholders, including civil society, academia and the private sector.

The HLG-PCCB consults closely with the Inter-agency and Expert Group on SDG indicators (IAEG-SDGs) on statistical capacity development for the implementation of SDG indicators, and also engages with PARIS21, the regional development banks and other actors in order to maximise the effect and efficiency of international efforts for statistical capacity development.

B.1.3.2. UNITED NATIONS WORLD DATA FORUM

In its 2014 report 'A world that counts: mobilising the data revolution for sustainable development', the United Nations Secretary-General's Independent Expert and Advisory Group on Data Revolution for Sustainable Development recommended to set up a United Nations World Data Forum on Sustainable Development Data (UN World Data Forum) A "World Forum on Sustainable Development Data" in order to bring together the whole data ecosystem to share ideas and experiences for data improvements, innovation, advocacy and technology transfer. The UN World Data Forum should provide a platform for intensified cooperation between the global statistical community and different professional groups, such as information technology experts, geospatial information managers, data scientists, and users, as well as civil society stakeholders. The HLG-PCCB's mandate specifically called on it to provide guidance on the content and organisation of such a forum.

The UN Statistical Commission supported the establishment of the UN World Data Forum, which met for the first time in Cape Town in January 2017. This first UN World Data

Forum saw the launch of a global action plan for sustainable development data, the Cape Town Global Action Plan for Sustainable Development. At the second UN World Data Forum in Dubai, United Arab Emirates, in 2018, the Dubai Declaration was presented, with participating parties committing to the implementation of the Cape Town Global Action Plan. The Dubai Declaration includes commitments to mobilise international and national funding to strengthen the technical and institutional capacities of national data and statistical systems and to establishing an innovative funding mechanism, open to all stakeholders, that is able to respond in a fast and efficient manner to the priorities of national data and statistical systems. The third UN World Data Forum was held in October 2021 in Bern, Switzerland. At this World Data Forum, the World Bank launched the new Global Data Facility funding mechanism for statistical capacity development. The Forum also saw the presentation of the Bern Network on Financing Data for Development.

B.1.3.3. CAPE TOWN GLOBAL ACTION PLAN FOR SUSTAINABLE DEVELOPMENT DATA

The Cape Town Global Action Plan for Sustainable Development Data was informally launched at the first UN World Data Forum on 15 January 2017 in Cape Town, South Africa, and adopted by the UN Statistical Commission in March 2017.

Since 2004, when the Marrakech Action Plan for Statistics was adopted, strategic planning has been a central tool for the development of national statistics development programmes, increasing political and financial support for statistics, and ensuring that countries have the required institutional capacity to produce the data and statistics needed for monitoring and evaluating their development outcomes.

The importance of accessible, timely and reliable data have been heightened by the needs for policy making and monitoring progress towards the SDGs. In particular, disaggregated data are vital in order to deliver on the Agenda 2030 promise 'to leave no one behind'. Increased support for strengthening data collection and capacity development recognized are crucial to respond to this and to address data gaps for the SDG targets to better measure the progress.

The data revolution, with new sources of data, new formats and new technology, coupled with increased needs for information at all levels, requires the global statistical system to take decisive action to transform how data and statistics are produced and disseminated to inform development policy decisions. This calls for support of governments and closer partnerships with stakeholders from academia, civil society, the private sector, and the public at large.

At its meeting in January 2016, the HLG-PCCB agreed to develop a proposal for a Global Action Plan for Sustainable Development Data as a successor of the Busan Action Plan for Statistics from 2011. The aim of this new plan would be to outline the necessary actions to generate quality and timely data on a routine basis, in order to inform sustainable development at the requested level of disaggregation and population coverage, including for the most vulnerable and hard-to-reach groups. The plan is also intended to fully account, communicate, and coordinate existing efforts, as well as to identify new and strategic ways to efficiently mobilise resources.

The key principles of the Cape Town Global Action Plan for Sustainable Development Data are:

- Completeness of scope: it shall address all aspects of coordination, production and use of data for sustainable development, and describe necessary steps to modernise and strengthen statistical systems. The plan shall address short, middle and long-term actions, with particular focus on building the infrastructure and the capacity needed to support local, national, regional and global statistical requirements.
- Accountability: trust among data providers, producers and users of statistics is key for the effective functioning of the national, regional, and global statistical systems. Accordingly, the plan identifies national statistical systems, under the leadership of national statistical offices, as the necessary and appropriate leaders of this effort.
- Cooperation: cooperation among countries, regional organisations and other international organisations and stakeholders has a crucial role in supporting countries' plans and efforts in capacity building. The expertise and abilities of these key stakeholders are essential resources for progress and modernisation. Indeed, they have a crucial role in capacity building and in carrying out statistical capacity building efforts in their areas of work. However, the role of international organisations and regional entities in the development of methodologies and data must be conducted in full consultation and coordination with national statistical offices. Coordination and streamlining of these activities are necessary to avoid duplication of efforts.

The plan describes areas to address where there are important statistical capacity development needs and proposes key actions in each.

Box 1.5: Cape Town Global Action Plan for Sustainable Development Data

Strategic Area 1: Coordination and strategic leadership on data for sustainable development

Objective 1.1: Strengthen national statistical systems and the coordination role of national statistical offices

Objective 1.2: Strengthen coordination among national statistical systems and regional and international organizations active in the production of data and statistics for sustainable development

Strategic Area 2: Innovation and modernization of national statistical systems

Objective 2.1: Modernize governance and institutional frameworks to allow national statistical systems to meet the demands and opportunities of constantly evolving data ecosystems

Objective 2.2: Modernize statistical standards, particularly those aimed to facilitate data integration and automation of data exchange across different stages of the statistical production process

Objective 2.3: Facilitate the application of new technologies and new data sources into mainstream statistical activities

Strategic Area 3: Strengthening of basic statistical activities and programmes, with particular focus on addressing the monitoring needs of the 2030 Agenda

Objective 3.1: Strengthen and expand household survey programmes, integrated survey systems, business and other economic survey programmes, population and housing census programmes, civil registration and vital statistics programmes and the International Comparison Programme taking into account the needs posed by the 2030 Agenda

Objective 3.2: Improve the quality of national statistical registers and expand the use of administrative records integrating them with data from surveys and other new data sources, for the compilation of integrated social, economic and environmental statistics and in relation to follow up on the 2030 Agenda

Objective 3.3: Strengthen and expand System of National Accounts and the System of Environmental Economic Accounts

Objective 3.4: Integrate geospatial data into statistical production programmes at all levels

Objective 3.5: Strengthen and expand data on all groups of population to ensure that no one is left behind

Objective 3.6: Strengthen and expand data on domains that are currently not well developed within the scope of official statistics

Strategic Area 4: Dissemination and use of sustainable development data

Objective 4.1: Develop and promote innovative strategies to ensure proper dissemination and use of data for sustainable development

Strategic Area 5: Multi-stakeholder partnerships for sustainable development data

Objective 5.1: Develop and strengthen partnerships of national and international statistical systems with governments, academia, civil society, private sector and other stakeholders involved in the production and use of data for sustainable development

Strategic Area 6: Mobilize resources and coordinate efforts for statistical capacity building

Objective 6.1: Ensure that resources are available to implement the necessary programmes and actions as outlined in this global action plan (both domestic and from international cooperation)

Source: Cape Town Global Action Plan for Sustainable Development Data

B.1.3.4. MANAGEMENT AND ORGANIZATION OF STATISTICAL SYSTEMS

The Global Conference on a Transformative Agenda for Official Statistics (2015) was organised jointly by the United Nations Statistics Division (UNSD) and Eurostat. The purpose of the conference was to seek a broad consensus on a strategic framework for statistics in support of the post-2015 development agenda and consider the management implications for the statistical system.

One of the key outcomes of this process was the complete revision and modernisation of the UNSD's Handbook on Statistical Organization. The new Handbook on Management and Organization of Statistical Systems, featured in the online wiki portal (see the 'To find out more' box below), is a thorough update to the third edition of the UNSD's Handbook of Statistical Organization from 2003.

The UNSD highlights that the primary objective of the Handbook is to guide chief statisticians and senior managers of statistical organizations in how to develop and maintain statistical capacity that is fit for purpose. The Handbook aims to enhance the capacity of developing countries to strengthen the legal, institutional and organisational environments in which their statistical authorities operate. It also promotes the integrated and consistent planning of statistical production and development to address increased data needs across multiple statistical domains.

The Handbook provides descriptive information to guide and inform statistical organizations on important issues and topics, including new and emerging ones. It takes into account that national statistical systems and offices vary significantly in terms of size (human, financial and infrastructure), level of maturity or development (developing, developed, advanced), the extent of decentralisation (centralised, decentralised), but also the institutional environment in which producers of official statistics operate.

The Handbook is designed:

- to be used as a checklist that an NSO, or any other producer of official statistics, would take into consideration when managing and carrying out the various statistical processes involved in producing, analysing, and disseminating official statistics;
- to provide clear guidance that, with the exception of elements related to the UN Fundamental Principles of Official Statistics, is not prescriptive: the situation in each country is unique, and only those in the country can determine the usefulness of the guidance provided;
- to contribute to harmonisation and alignment of concurring definitions and terminology that have emerged recently through various, initiatives and programmes at the global and regional levels.

In discussing standards-based modernisation of the statistical production process, the Generic Statistical Business Process Model (GSBPM) is used as the organising framework. The discussion on the management of statistical activities is loosely based on the Generic Activity Model for Statistical Organizations (GAMSO), which is linked to the GSBPM. The Handbook cover the following main topics:

- Institutional and organizational frameworks that secure the resilience and the adaptability of official statistics;
- Communication, advocacy, and multi-stakeholder partnerships for official statistics;
- Production processes and data sources for integrated production systems in official statistics;
- Information technology infrastructure to support data collection and the sharing, processing, and dissemination of official statistics;
- Quality assurance frameworks, quality policy and quality management in official statistics;
- Capacity development, training, and resource mobilisation in official statistics.

The Handbook's Chapter 2 'Official Statistics – a general overview' addresses chief statisticians and senior managers of statistical offices, as well as a broad range of users, data providers and stakeholders at all levels within and outside the national statistical system. It provides the essence of the main topics and critical issues dealt with in the other chapters of the Handbook, and will also be provided as a stand-alone hard-copy publication in all UN official languages:

- Official statistics
- The international dimension
- Basis of official statistics
- National statistical offices and national statistical systems
- The role of the chief statistician
- Statistical confidentiality
- Who are the users of official statistics?
- Maintaining close relations with users
- Data for official statistics
- Comparing modes of data acquisition
- Time and space dimensions of data
- Sustainable development indicators
- The statistical production processes
- Managing quality
- Disseminating and communicating the statistics
- International statistical cooperation
- The constant challenge of modernizing official statistics

Countries have found different ways of placing the NSO within their administrative structure and in a few cases as an autonomous agency outside the main branch of the executive. In most cases, the function of chief statistician is assigned to the head of the NSO. Chapter 5 'National statistical office' discusses various aspects of the NSO as an organization. It includes its vision, mission statement, core function, strategic planning, finance and administrative structures. It also discusses statistical business architecture, project management and various options for (re) organising the NSO.

Chapter 4 'The National statistical system' further examines organizational issues for national statistical systems, derived

from the principles and the definition of official statistics and how these principles are translated into institutional safeguards for the various actors in official statistics. The chapter also discusses relationships between the NSO and other producers of official statistics; the ways NSSs are organised (the spectrum from centralised to decentralised, vertically and horizontally, etc.); legislative frameworks and governance; and the chief statistician position and function. The data ecosystem within a country is broader than the national statistical system because it includes not only those producing official statistics but all producers and users of data in a country

To find out more…

- High-level Group for Partnership, Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development (HLG-PCCB) (website)
- United Nations World Data Forum (UN WDF) (website)
- UN World Data Forum: Cape Town Global Action Plan for Sustainable Development Data (2017)
- UN World Data Forum: Dubai Declaration supporting the implementation of the Cape Town Global Action Plan for Sustainable Development Data (2018)
- UN World Data Forum: The Road to Bern – UN World Data Forum 2021 (website)
- United Nations Secretary-General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development (IEAG): A world that counts: mobilising the data revolution for sustainable development (2014)
- United Nations Statistics Division (UNSD): Handbook on Management and Organization of National Statistical Systems (wiki online page; Beta v2.3 as of September 2021)
- United Nations Statistics Division (UNSD): Global Inventory of Statistical Standards (website)
- Generic Statistical Business Process Model (GSBPM) (website)
- Generic Activity Model for Statistical Organizations (GAMSO) (website)
- United Nations Statistical Commission: Transformative agenda for official statistics - Report of the Secretary-General (2017)
- Eurostat and UN Statistics Division (UNSD): Global Conference on a Transformative Agenda for Official Statistics (2015)

B.1.4. EU development policies and budget support

B.1.4.1. THE EUROPEAN CONSENSUS ON DEVELOPMENT AS A FRAMEWORK FOR DEVELOPMENT POLICY

The original European Consensus on Development from 2005 presented the European Commission's and EU Member States' common vision on development, responding to the challenges set by the Millennium Declaration and the Millennium Development Goals, a critical element of the EU development approach.

However, despite the joint efforts of actors at all levels to reach the MDGs, profound global challenges remained in 2015, at the end of the period covered by the Millennium Declaration. Poverty and inequalities persisted, while many countries and regions experienced increasing instability and crises. Developing countries had become more diverse, while public goods had come under stress worldwide. At the same time, the international and EU framework for international cooperation and development underwent a major shift. 2015 saw the adoption of the Addis Ababa Action Agenda (AAAA) in July, the 2030 Agenda for Sustainable Development and the SDGs in September and the Paris Climate Agreement December. As the world's largest development actor, the EU played an instrumental role in shaping the 2030 Development Agenda and the SDGs. At the EU level, 2009 saw the adoption of the Lisbon Treaty, while 2016 saw the adoption of the EU Global Strategy on Foreign and Security Policy. Sustainable development is one of the key elements of the EU's external action, as defined in the Lisbon Treaty and the Global Strategy.

The renewed European Consensus on Development from 2017 is the cornerstone of the European Union's revamped development policy. It is a central part of the EU's overall response to the 2030 Agenda, while also underlining the close relations between sustainable development and climate action and thus also reaffirming the EU's strong commitment to the Paris Agreement. The renewed European Consensus creates a shared framework for all EU institutions and Member States, providing a common approach to development policies. It will guide the EU's cooperation with all developing countries, while recognising that the diversity of EU's partner in their social, political and economic structure is increasing and requires actions tailored to the partner country's own development agenda and strategies on a case-by-case basis.

The European Consensus translates the 2030 Agenda and SDG blueprint into EU development policies. Ending poverty in all its forms remains the EU's primary objective. In line with the central promise to 'leave no one behind', the EU and its Member States will work to reduce inequalities, address vulnerabilities and combat discrimination. The European Consensus provides a framework that promotes gender equality and social inclusion across EU policies, foster opportunities for young people and improve people's well-being everywhere. In implementing the consensus, the EU will

be guided by and promote its common principles, including democracy, the rule of law, human rights, equality and solidarity, as well as its commitment to a rules-based global order.

The renewed consensus is based on the 'five Ps' of the 2030 Agenda, which overarch the 17 SDGs: People, Planet, Prosperity, Peace and Partnerships. These five Ps draws the interlinkages between different SDGs to light. The consensus promote actions that meet multiple goals in a coherent way, with implementation requiring work across policies and sectors to boost synergies, address cross-cutting elements and thus accelerate transformation.

A core element of the consensus is the principle of policy coherence for development (PCD); development objectives should be fully taken into account across EU policies that are likely to affect developing countries. Policy coherence is a crucial element of the strategy to achieve the SDGs in the EU's partner countries, and should be applied across all policies and all areas covered by the 2030 Agenda. In line with Article 208 of the Lisbon Treaty, the EU 'shall take account of the objectives of development co-operation in the policies that it implements which are likely to affect developing countries'. Within the EU's 'Better Regulation Package, Tool 34 is dedicated to analysing the potential impact of important EU policy initiatives on developing countries. The 2019 EU Report on Policy Coherence for Development presented the state of play of the EU's efforts on "Delivering the SDGs in Europe and in the world".

Another core element of the consensus is the emphasis on the principles of development effectiveness and a results-based approach in order to increase the impact of the development cooperation. The EU and its Member States apply the development effectiveness principles agreed in the Global Partnership for Effective Development Cooperation (GPEDC): ownership of development priorities by developing countries, a focus on results, inclusive development partnerships, transparency and mutual accountability.

The EU strives to strengthen the effectiveness of its development cooperation by:

- defining its objectives based on the partner countries' own development priorities;
- supporting the policy processes through which these priorities are formulated, as well as the results frameworks established to manage and report on them;
- strengthening and building on partner countries' own systems to deliver on policy objectives and implement development programmes; and
- providing more of its support through coordinated aid modalities, such as budget support.

A third core element of the consensus is the commitment to Joint Programming. Joint programming improves overall aid coordination, coherence, and transparency. It reinforces mutual trust and knowledge between the EU, its Member States and other partners, while reducing donor fragmentation and transaction costs. At country level, Joint Programming in development cooperation increase the EU's and its Member States' collective impact by bringing together their resources and capacities. Partner country engagement, appropriation and ownership are essential for this process. Joint Programming should be led by the partner country's development strategy and aligned to the partner country's development priorities. The EU and its Member States work together to develop strategic responses grounded in shared knowledge, added value, lessons learned and joint analysis of the country context, including poverty and sustainability, and the country's overall relations with the EU. In doing so, they will take into account the available means for development financing, in line with the AAAA.

In order to keep track of the results of joint strategies, the EU international development and cooperation results framework was launched in 2015. This framework was revised in 2018 to align with the new European Consensus. The results framework defines a set of indicators to use for the collection, aggregation, and presentation of data, and serve as standards for the EU's yearly activity reports in partner countries. It helps identifying clear and measurable results and makes EU aid more accountable. In June 2020, the European Commission published a new study that provides a snapshot of how well the EU and its Member States are implementing the aid and development effectiveness principles in their ODA to developing countries.

Development cooperation includes all international public and private finance targeted at development outcomes, as well as domestic finance and policy. This includes not only official development assistance (ODA), but non-ODA climate finance, other official flows, South-South and triangular cooperation, funds and blended public/private finance, civil society actions and some non-financial co-operation including policy measures and private sector engagement. All of these resources should complement each other and work together as effectively as possible.

The consensus reaffirms that the EU and its Member States are fully committed to a comprehensive, transparent and accountable system of monitoring and review for the purpose of the implementation of the 2030 Agenda. The EU and its Member States will progressively adapt their reporting systems to be consistent with the 2030 Agenda's follow-up processes and indicators. They will improve the quality and availability of data on their development cooperation activities, across the 2030 Agenda. The EU and its Member States will also integrate the 2030 Agenda and support the use of SDG indicators to measure development results at country level. In particular, SDGs indicators can foster and facilitate a common EU results-oriented approach that favours harmonised results reporting at partner country level, including partner-country-level results frameworks, where they exist.

The consensus also confirms the commitment of the EU and its Member States to boost the statistical capacity of developing countries, including through strengthened capacity for the production and analysis of data, to inform policy and decision-making. This data should be disaggregated where possible by income, gender, age and other factors, and provide information on marginalised, vulnerable and hard-to-reach groups, inclusive governance

and other issues, consistent with the EU's rights-based approach. It will also include investments in stronger statistical institutions at sub-national, national and regional level, and the use of new technologies and data sources. The EU and its Member States will encourage their partner countries to include the voices of marginalised communities in monitoring the SDGs and to promote concrete mechanisms to this end.

B.1.4.2. EU BUDGET SUPPORT TO THIRD COUNTRIES

A significant share of EU aid is delivered in the form of budget support, and the EU is the world's top provider of budget support. It involves direct financial transfers to the national treasury of partner countries engaging in sustainable development reforms. These transfers are conditional on policy dialogue, performance assessment, and capacity building.

EU budget support promotes progress towards all Sustainable Development Goals (SDGs), including reducing poverty (SDG 1) and promoting gender equality and empowerment of women (SDG 5). Countries receiving EU budget support perform better in controlling corruption than other developing countries (SDG 16).

The rules of EU budget support were set by the European Commission communication on 'The future approach to EU budget support to third countries' (COM(2011) 638). This Communication highlights the need for a coordinated approach at EU level, to ensure the effectiveness of this aid modality. It introduces budget support:

> *"Budget support involves policy dialogue, financial transfers to the national treasury account of the partner country, performance assessment and capacity-building, based on partnership and mutual accountability. It should not be seen as an end in itself, but as a means of delivering better aid and achieving sustainable development objectives by fostering partner countries ownership of development policies and reforms, as well as by implementing the aid effectiveness agenda ..."*

This initial framework has later been complemented by the EU's commitment to the 2030 Agenda and the Addis Ababa Action Agenda (2015). The renewed European Consensus on Development (2017) reiterated the importance of a coordinated approach to budget support. As the budget support is tailored to the development needs of the partner countries, specific objectives vary. However, they are always in line with the partner countries' own development policies, priorities, and objectives, and consistent with the EU's external action policy.

To benefit from budget support, partner countries need to adhere to EU fundamental values of human rights, democracy, and the rule of law. They must also have:

- relevant and credible national or sector strategies, policies, and/or reforms;
- stability-focused economic policies;
- a relevant and credible plan to improve public financial management and domestic revenue mobilisation;
- budget oversight and publicly available budget information

The 'Future approach to EU budget support' Communication provides three different categories of budget support contracts. The choice of contract category depends on the specific partner country's context and own development objectives:

- **Sustainable Development Goals Contracts (SDG-Cs)** are meant to support the partner countries' own efforts to achieve several SDGs. They support high-level strategic development objectives, which require a comprehensive and transversal approach. SDG-Cs can only be assigned after a satisfactory assessment of the partner government's commitment to EU fundamental values.
- **Sector Reform Performance Contracts (SRPCs)** focus on sector policies and reforms, to improve governance and service delivery. They focus on one or a few SDGs. They support our partner countries' efforts to ensure inclusive access to qualitative public services, promote women's and children's rights, and create the conditions for sustainable growth at sector level.
- **State and Resilience Building Contracts (SRBCs)** are used in fragile contexts. They support our most fragile partner countries' transition towards recovery, development, and democracy and help them address the structural causes of their fragility. They can also be deployed right after a crisis or a natural disaster. Eligibility criteria for SRBCs are the same, but they are assessed using a forward-looking approach. A strong policy dialogue – and safeguard measures when necessary – is a pillar of SRBCs. SRBCs typically address several SDGs. SRBCs usually prepare the ground for SDG-Contracts and SRPCs, as they support the formulation of national or sectoral development strategies in the partner countries.

Box 1.6: Budget support and the fight against corruption and fraud

Financial transfers under budget support are tied to performance. If a partner country does not meet the agreed upon conditions for results, payments will be withheld until they do. The use of a variable tranche based on indicators also allows for partial payment in case of partial performance. Budget support encourages an accountable and effective public administration, contributing to the fight against corruption and fraud through:

- assistance to audit and anti-corruption institutions or judicial bodies;
- strengthened political/policy dialogue on transparency and oversight functions;
- reforms to fix systemic weaknesses favouring corruption in revenue administration, spending and procurement processes or in service delivery;
- support for civil society organisations to enable participation and oversight in the budgetary and policy process.

Budget support contributes creation of a favourable climate for private investments in the partner countries. Thus, budget support also helps partner countries mobilise domestic revenue and depend less on external aid in the long run.

The European Union generally provides budget support using a combination of fixed tranches linked to eligibility criteria, and variable tranches that are also linked to progress in meeting agreed targets in for example health, education, or public financial management. The European Commission's Budget Support Guidelines were updated in September 2017, reflecting the orientations set out in the renewed European Consensus on Development.

The partner country should have a well-functioning system in place for monitoring progress and reporting on performance, both at general and at sector policy level. Reliable information, based on quality statistics, is required to create an informed baseline. Progress is assessed against results data that should be reliable as it triggers disbursements. Where weaknesses are identified, actions should be agreed with the government and other cooperation partners to strengthen statistical, monitoring, and reporting systems. EU Delegations should pay particular attention to:

- the institutional setup and the functioning of statistical systems in the country and more particularly in the sector(s) covered by the contract;
- the monitoring and evaluation systems and/or the performance assessment framework linked to the policy; and
- the timeliness, regularity, quality and reliability of official statistics, public data and reporting documents as well as the extent of publication and dissemination.

To find out more…

about European Commission development policies:

- European Consensus on Development (2017)
- Shared vision, common actions: a stronger Europe. Global strategy for the European Union's foreign and security policy (2016)
- European Commission – DG International Partnerships: European development policy; see in particular the sections on the renewed European Consensus on Development, Development effectiveness, Joint Programming, and Policy coherence for development
- European Commission – DG International Partnerships: Effective development cooperation – Does the EU deliver?
- Commission Staff Working Document SWD(2019) 20 final: 2019 EU report on Policy Coherence for Development
- European Commission – DG International Partnerships: Aid transparency; Strategic evaluations – Assessing the quality of EU development aid; Project and programme evaluations
- European Commission: Better Regulation Toolbox; Tool #34 Developing countries

about European Commission budget support:

- European Commission Communication COM(2011) 638 final: 'The future approach to EU budget support to third countries' (2011)
- European Commission – DG International Partnerships: Budget Support Guidelines (2017)
- European Commission – DG International Partnerships: Budget support website
- European Commission – DG International Partnerships: Budget support – Trends and results 2020
- Commission Staff Working Document SWD(2015) 198: Collect more – Spend better: Achieving development in an inclusive and sustainable way

B.2 How statistics are made

B.2. How statistics are made

The chapter in brief

The chapter presents an overview of what constitutes official statistics, how they are produced and how they are disseminated. It addresses the following issues:

- Principles of statistics production and the consequent legal framework for official statistics
- Overview of statistics operations from analysis and design to dissemination of results
- Structure of the National Statistical System, how it organises statistics production and how it relates to users of statistics
- Briefing on the role of regional and international organisations in producing statistics and in standardising concepts and methods

B.2.1. Official statistics and their fundamental principles

B.2.1.1. DEFINING OFFICIAL STATISTICS

Official statistics are statistics produced and disseminated by the specialised public organisations that make up the national and international statistical systems([1]). Official statistics are available publicly, freely or at relatively low cost; they aim to be a unique, definitive and generally accepted public measure and record of an economic, social or environmental condition. Areas of interest can be social, economic, environmental or other subjects relevant to public policy. Examples of official statistics include numbers of children born, numbers of unemployed people and measures of the quality of water, etc. Basic commentary on data that explains the main features of the latest data (metadata) is often included in official statistics publications.

Official statistics, also called 'public statistics', are used to design, implement, monitor and evaluate public policies. Official statistics are published in many forms such as summary publications for the non-specialist public; press releases that can make newspaper headlines and affect financial markets; and large, detailed databases for further analysis by specialists. In recent years, the Internet has become a primary means of dissemination of statistics.

In contrast to official statistics, unofficial, private or internal statistics are not necessarily publicly available or may be published at high cost for a specialist audience. Unofficial statistics often do not aim at being unique and definitive; their methodologies can be unpublished. Opinion polls, market research and company production data are examples of unofficial statistics.

([1]) Excluding any publications that are explicitly stated not to be official

Most official statistics are 'descriptive statistics': numbers that represent observed measurements of a state or condition of a 'population'. A population can consist, for example, of all persons, businesses or land areas in a country. The individual entities that make up the population are known as 'population units'.

Descriptive statistics also include 'metadata': information about the data. Metadata[2] consists of:

- Concepts: the characteristics, definitions and descriptions of observations or of a series of observations taken over time (time-series), including classifications
- Methods: analysis and accounts of how the data is collected and processed. In surveys, the most important element is the sample methodology, which describes how the population was observed statistically.

Metadata about official statistics is published, sometimes in manuals of 'sources and methods'. The methods used to prepare the official statistics are therefore transparent. Unofficial statistics producers may or may not publish the methodology used.

In contrast to 'descriptive statistics', 'theoretical statistics' make statements that infer relationships such as causes or forecasts of future trends in data. Because these studies hypothesise causal relationships, they are generally contestable and cannot aim at being unique and definitive measurements in the same way as official statistics. For this reason, economic forecasts, social analyses and environmental projections are usually worked on outside national statistics institutes, even though they are often based on official statistics. Economics, social scientists and environmentalists are therefore more often seen as users of official statistics than as producers.

Official statistics are in certain circumstances based on statistical inferences (theoretical statistics). Examples include estimating missing data values, short-term forecasts and estimation for the total population based on sample survey data.

([2]) See also: **European Statistical System handbook for quality and metadata reports**, 2020 edition. Manuals and Guidelines. Eurostat.

The range of official statistics can be classified by broad subject area. This is Eurostat's classification:

Theme1: General and Regional Statistics
Theme 2: Economy and Finance
Theme 3: Population and social conditions
Theme 4: Industry, trade and services
Theme 5: Agriculture and fisheries
Theme 6: External trade
Theme 7: Transport
Theme 8: Environment and energy
Theme 9: Science and technology

Some statistics are used in more than one subject area: for example, water quality data are used for both social and environmental indicators.

To find out more…

About the range of official statistics and metadata, see Eurostat's website at:

https://ec.europa.eu/eurostat

- European Statistical System: Quality (website)
- European Statistical System: Quality Assurance Framework of the European Statistical System (ESS QAF) – version 2.0 (2019 edition)
- European Statistical System: European Statistical System handbook for quality and metadata reports, 2020 edition
- European Statistical System: Quality reporting (website)
- European Statistical System: European Statistics Code of Practice – revised edition 2017 (website)
- European Statistical System: Monitoring of compliance with the Code of Practice (website)
- Eurostat: Quality: the Error management policy; the Impartiality Protocol; the Quality reviews (website)

B.2.1.2. THE FUNDAMENTAL PRINCIPLES OF OFFICIAL STATISTICS

The international community of statisticians has agreed on ten 'fundamental principles' with which official statistics must comply to correctly inform the public. These principles were adopted in 1994 by the United Nations Statistical Commission. The principles state that all organisations that are responsible for producing official statistics must:

- Compile and disseminate them in an impartial manner
- Select their methods based on purely professional considerations (strict scientific principles and ethical rules).
- Ensure the protection of personal data collected from individuals and enterprises.

Box 2.1: The UN's Fundamental Principles of Official Statistics

Principle 1. Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information.

Principle 2. To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.

Principle 3. To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.

Principle 4. The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.

Principle 5. Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.

Principle 6. Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.

Principle 7. The laws, regulations and measures under which the statistical systems operate are to be made public.

Principle 8. Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.

Principle 9. The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels.

Principle 10. Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

Source: UN Fundamental Principles of Official Statistics (2014)

The European Statistics Code of Practice is based on the United Nations' 'fundamental principles', develops them further and puts them into more concrete. The 2017 revision of the European Code of Practice comprises 16 principles with each a set of indicators of good practices covering the institutional environment, statistical processes and outputs. The European Union's institutions involved with statistics, notably Eurostat, are committed to respect this code and to periodically assess its application through good practice indicators and a detailed questionnaire developed by Eurostat in co-operation with the EU National Statistical Institutes. Information on compliance with the code by statistical authorities is published on the Eurostat website.

Box 2.2: The Principles of the European Statistics Code of Practice, 2017 revision

Institutional environment

Principle 1: Professional Independence - The professional independence of statistical authorities from other policy, regulatory or administrative departments and bodies, as well as from private sector operators, ensures the credibility of European Statistics.

Principle 1bis: Coordination and cooperation - National Statistical Institutes and Eurostat ensure the coordination of all activities for the development, production and dissemination of European statistics at the level of the national statistical system and the European Statistical System, respectively. Statistical authorities actively cooperate within the partnership of the European Statistical System, so as to ensure the development, production and dissemination of European statistics.

Principle 2: Mandate for Data Collection and Access to Data - Statistical authorities have a clear legal mandate to collect and access information from multiple data sources for European statistical purposes. Administrations, enterprises and households, and the public at large may be compelled by law to allow access to or deliver data for European statistical purposes at the request of statistical authorities.

Principle 3: Adequacy of Resources - The resources available to statistical authorities are sufficient to meet European Statistics requirements.

Principle 4: Commitment to Quality - Statistical authorities are committed to quality. They systematically and regularly identify strengths and weaknesses to continuously improve process and output quality.

Principle 5: Statistical Confidentiality and Data Protection - The privacy of data providers, the confidentiality of the information they provide, its use only for statistical purposes and the security of the data are absolutely guaranteed.

Principle 6: Impartiality and Objectivity - Statistical authorities develop, produce and disseminate European Statistics respecting scientific independence and in an objective, professional and transparent manner in which all users are treated equitably.

Statistical Processes

Principle 7: Sound Methodology - Sound methodology underpins quality statistics. This requires adequate tools, procedures and expertise.

Principle 8: Appropriate Statistical Procedures – Appropriate statistical procedures, implemented throughout the statistical processes, underpin quality statistics.

Principle 9: Non-Excessive Burden on Respondents - The response burden is proportionate to the needs of the users and is not excessive for respondents. The statistical authorities monitor the response burden and set targets for its reduction over time

Principle 10: Cost Effectiveness - Resources are used effectively.

Statistical Output

Principle 11: Relevance - European Statistics meet the needs of users.

Principle 12: Accuracy and Reliability - European Statistics accurately and reliably portray reality.

Principle 13: Timeliness and Punctuality - European Statistics are released in a timely and punctual manner.

Principle 14: Coherence and Comparability - European Statistics are consistent internally, over time and comparable between regions and countries; it is possible to combine and make joint use of related data from different data sources.

Principle 15: Accessibility and Clarity – European Statistics are presented in a clear and understandable form, released in a suitable and convenient manner, available and accessible on an impartial basis with supporting metadata and guidance. 0

Source: European Statistical System: European Statistics Code of Practice – revised edition 2017

The African Charter on Statistics is based on the UN fundamental principles and requires the statistics system of Africa to adopt and respect them. In April 2008, the Conference of African Ministers of Economy and Finance, jointly arranged by the African Union and the UN Economic Commission for Africa, approved the draft Charter. On 3 February 2009, the Charter was adopted by African Heads of State and Government. The charter officially entered into force in May 2014 when the required number of countries had ratified it.

The African Union Commission has developed guidelines and indicators to assess how far the principles of the Charter on Statistics are implemented in its member states; an action plan for implementation has also been developed. A study on the implementation by the member states showed that the countries that responded to the self-assessment questionnaire are implementing the principles of the Charter well. However, there are still some gaps when it comes to implementing the sub-principles and the level of implementation varies across the six principles of the Charter.

Box 2.3: The principles of the African Charter on Statistics

Principle 1: Professional independence

Scientific independence: Statistics authorities must be able to carry out their activities according to the principle of scientific independence, particularly vis-à-vis political authorities or interest groups;

Impartiality: Statistics authorities shall produce, analyse, disseminate, and comment on African statistics in line with the principle of scientific independence, and in an objective, professional and transparent manner;

Responsibility: Statistics authorities and African statisticians shall employ unambiguous and relevant methods in the collection, processing, analysis and presentation of statistical data. Statistical authorities shall also have the right and duty to make observations on erroneous interpretation and improper use of the statistical information that they disseminate;

Transparency: To facilitate proper interpretation of data, Statistics authorities shall provide information on their sources, methods and procedures that have been used in line with scientific standards. The domestic law governing operation of the statistical systems must be made public.

Principle 2: Quality

Relevance: African statistics shall meet the needs of users;

Sustainability: African statistics shall be conserved as detailed as possible to ensure their use by future generations, while preserving the principles of confidentiality and protection of respondents;

Data sources: Data used for statistical purposes may be collected from diverse sources such as censuses, statistics surveys and/or administrative records. The statistics Organizations shall choose their sources in consideration of the quality and topicality of data, particularly the costs incurred by the respondents and sponsors. The use by statistics authorities of administrative records for statistical purposes shall be guaranteed by domestic law, provided that confidentiality is preserved.

Accuracy and reliability: African statistics shall be an accurate and reliable reflection of the reality;

Continuity: Statistics authorities shall ensure continuity and comparability of statistical information over time;

Coherence and comparability: African statistics shall be internally coherent over time and allow for comparison between regions and countries. To this end, these statistics shall make combined use of related data derived from different sources. It shall employ internationally recognized and accepted concepts, classifications, terminologies and methods;

Timeliness: African statistics shall be disseminated in good time and, as far as possible, according to pre-determined calendar;

Topicality: African statistics shall reflect current and topical events and trends;

Specificities: Statistical data production and analytical methods shall take into account African peculiarities;

Awareness-building: State Parties shall sensitize the public, particularly statistical data providers, on the importance of statistics.

Principle 3: Mandate for data collection and resources

Mandate: Statistics authorities shall be endowed with a clear legal mandate empowering them to collect data for production of African statistics. At the request of statistics authorities, public administrations, business establishments, households and the general public may be compelled by domestic law to allow access to their data or provide data for the compilation of African statistics;

Resource Adequacy: As far as possible, the resources available to Statistics authorities shall be adequate and stable to enable them to meet statistics needs at national, regional and continental levels. Governments of States Parties shall have the primary responsibility to provide such resources;

Cost-effectiveness: Statistics authorities shall use the resources so provided effectively and efficiently. This presupposes, in particular, that operations shall as far as possible, be programmed in an optimal manner. Every effort shall be made to achieve improved production and use of the statistics derived from administrative records, to reduce the costs incurred by respondents and, as far as possible, avoid expensive direct statistical surveys.

(continued)

Box 2.3: The principles of the African Charter on Statistics (continued)

Principle 4: Dissemination

Accessibility: African statistics shall not be made inaccessible in any way whatsoever. This concomitant right of access for all users without restriction shall be guaranteed by domestic law. Micro-data may be made available to users on condition that the pertinent laws and procedures are respected and confidentiality is maintained.

Dialogue with users: Mechanisms for consultation with all African statistics users without discrimination shall be put in place with a view to ensuring that the statistical information offered are commensurate with their needs.

Clarity and understanding: Statistics shall be presented in a clear and comprehensible form. They shall be disseminated in a practical and appropriate manner, be available and accessible to all and accompanied by the requisite metadata and analytical commentaries.

Simultaneity: African Statistics shall be disseminated in a manner that ensures that all users are able to use them simultaneously. Where certain authorities receive advance information under embargo, to allow them time to respond to possible questions, public announcement shall be made indicating the nature of such information, the identity of the recipients and the set timeframe before its public dissemination.

Correction: Statistics authorities shall correct publications containing significant errors using standard statistical practices or, for very serious cases, suspend dissemination of such statistics. In that event, users shall be informed in clear terms of the reasons for such corrections or suspension.

Principle 5: Protection of individual data, information sources and respondents

Confidentiality: National Statistics authorities, African statisticians and all those operating in the field of statistics in Africa shall absolutely guarantee the protection of the private life and business secrets of data providers, the confidentiality of the information so provided and the use of such information for strictly statistical purposes.

Giving assurances to Data providers: Persons or entities interviewed during statistical surveys shall be informed of the objective of such interviews and of the measures put in place to protect the data provided.

Objective: Data concerning individuals or entities collected for statistical purposes shall in no circumstance be used for judicial proceedings or punitive measures or for the purpose of taking administrative decisions against such individuals or entities.

Rationality: Statistics authorities shall not embark upon statistical surveys except where pertinent information is unavailable from administrative records or the quality of such information is inadequate in relation to the quality requirements of statistical information.

Principle 6: Coordination and Cooperation

Coordination: Coordination and collaboration amongst Statistics authorities in a given country are essential in ensuring quality and harmonious statistical information. Similarly, coordination and dialogue amongst all Members of the African Statistical System are vital for harmonization, production and use of African statistics.

Co-operation: Bilateral and multilateral statistics cooperation shall be encouraged.

Source: African Charter on Statistics (2009)

In November 2011, the Statistical Conference of the Americas (SCA –ECLAC) adopted the 'Code of Good Practice in Statistics for Latin America and the Caribbean'. It aims at being a technical and regulatory instrument contributing to the improvement of national statistical activities and systems across the region. This Code of Practice is structured by 17 principles and associated best practices. It has been inspired by the European Statistics Code of Practice as an example of good statistical practices. The Code of Good Practice in Statistics for Latin America and the Caribbean also addresses issues of specific relevance to the national statistical systems in the region. Specifically, this concerns the principle on coordination of national statistical systems, as well as the principle co-operation and international participation. For each of the 17 principles of the Code of Practice, compliance criteria have been defined; the number of compliance criteria varies between principles.

Following up the implementation of the Code of Good Practice in Statistics for Latin America and the Caribbean, a self-assessment questionnaire was developed for 10 principles of the Code of Practice, in order to assess the current status, strengths, weaknesses and improvement actions concerning the institutional environment and coordination, statistical processes and statistical outputs in the NSIs of the region. The results of this study have been presented in the 'Report on strengths, weaknesses and improvement actions found in the self-assessment questionnaire measured against the principles of the Regional Code of Practice in Statistics for Latin America and the Caribbean'.

Box 2.4: The Code of Good Practice in Statistics for Latin America and the Caribbean

Principle 1 - Professional independence: In order to guarantee the credibility of official statistics, the national statistical institute and other members of the national statistical system must be professionally independent of political and administrative agencies and other external sources of interference.

Principle 2 - Coordination of the national statistical system: This will enable the statistics producing entities to plan and implement national statistical activity in a participatory manner, maintain close contact and work jointly to improve the quality, comparability and consistency of official statistics.

Principle 3 - Statistical mandate for data collection: The collection of information for the preparation of official statistics must be supported by a clear legal mandate. At the request of the national statistical institutes and members of the national statistical system, the administrations, corporations, households and the public in general may be required by law to provide access to data for the preparation of official statistics or to submit such data, which will be treated as confidential.

Principle 4 - Statistical confidentiality: The national statistical institute and the other members of the national statistical system shall guarantee the protection and confidentiality of the information used to produce official statistics and shall refrain from identifying the sources.

Principle 5 - Adequacy of resources: The resources available for national statistical activity must be sufficient and appropriate for the generation of official statistics.

Principle 6 - Quality commitment: The entities that produce statistics within the national statistical system must work and cooperate in accordance with rules, principles and standards.

Principle 7 - Impartiality and objectivity: The national statistical institute and the other members of the national statistical system must produce and disseminate official statistics respecting scientific independence and in an objective, professional and transparent manner, so that all users are treated equally.

Principle 8 - Cooperation and international participation: The entities belonging to the national statistical system must cooperate in the exchange of experiences and information and work jointly on the preparation of international statistical standards and activities.

Principle 9 - Sound methodology: The production of official statistics by the national statistical institute and the other members of the national statistical system must be based on sound instruments, procedures and expertise.

Principle 10 - Appropriate statistical procedures: The quality of official statistics used by national statistical institute and the other members of the national statistical system must be underpinned by appropriate procedures and tools at every stage of the statistical process.

Principle 11 - Non-excessive burden on respondents: The national statistical institute and the other members of the national statistical system must set their targets so as to gradually reduce the burden on respondents. The request for information must be in keeping with the needs of users and must not be excessive for the respondents.

Principle 12 - Cost-effectiveness: The national statistical institute and the other members of the national statistical system must use resources efficiently and effectively.

Principle 13 - Relevance: The national statistical institute and other members of the national statistical system must satisfy users' information needs on the basis of their requirements.

Principle 14 - Accuracy and reliability: The official statistics produced by the national statistical institute and the other members of the national statistical system must be an accurate and reliable reflection of the actual situation.

Principle 15 - Timeliness and punctuality: The national statistical institute and the other members of the national statistical system must produce and disseminate official statistics in a timely, punctual and transparent manner.

Principle 16 - Coherence and comparability: The official statistics produced by the national statistical institute and the other members of the national statistical system must be coherent internally and over time and must be comparable across regions and countries.

Principle 17 - Accessibility and clarity: The official statistics generated by the national statistical institute and the other members of the national statistical system must be presented clearly and comprehensibly and disseminated appropriately, thereby enabling equitable access by all users.

Source: Code of Good Practice in Statistics for Latin America and the Caribbean (2011)

International organisations involved in the production and dissemination of statistics, principally UN agencies, similarly adopted Principles Governing International Statistical Activities in 2005. Once again, these are based on the 'fundamental principles'.

The International Statistical Institute (ISI), an independent professional association of statisticians, has drawn up a Declaration on professional ethics for statisticians. The aim of this declaration is to let the statistician's individual ethical judgments and decisions to be led by shared values and experience, rather than by rigid rules imposed by the profession. The declaration documents widely held principles of statistical inquiry and identifies factors that hamper their use.

To find out more…

- UN Fundamental Principles of Official Statistics (2014)
- European Statistics Code of Practice (revised edition 2017) and Eurostat quality website
- African Charter on Statistics (2009)
- Code of Good Practice in Statistics for Latin America and the Caribbean (2011) and Report on strengths, weaknesses and improvement actions found in the self-assessment questionnaire measured against the principles of the regional code of practice in statistics for Latin America and the Caribbean (2011)
- United Nations Statistics Division: Principles Governing International Statistical Activities (2005)
- International Statistical Institute: Declaration on professional ethics for statisticians (2010)

B.2.1.3. LEGAL FRAMEWORK FOR STATISTICS

The legal framework for the powers and responsibilities of government, individuals and private organisations concerning the collection and publication of statistical information is known as a 'Statistics law'. Most countries have adopted laws and other regulatory instruments that define the conditions in which activities relating to official statistics will be carried out. In principle, statistical law should conform to and implement the UN fundamental principles of official statistics.

Statistics law therefore generally covers the following areas:

- Authorisation and responsibility for collection and publication of statistical data: hence the organisation and functioning of the National Statistical System (NSS) and National Statistical Institute (NSI);
- Independence of statistical activity from political authorities;
- Obligation on individuals and organisations to reply truthfully to official surveys and censuses;
- Dissemination rules and confidentiality of statistical data, including exchange of statistical information within the public administration;
- Programming procedures, including a requirement for broad stakeholder consultation and transparency.

The existence of adequate statistics legislation and its implementation are key conditions for the development of official statistics. Effective implementation requires stakeholders to accept that the statistical law is a prerequisite for disseminating quality statistics that respond to users' needs. Missing or poorly implemented statistical legislation may create a number of problems, which can seriously influence the quality of the statistics:

- Undefined responsibility for authorising statistical activities can result in parallel activities being undertaken by different authorities. This in turn can mean additional administrative burden on respondents, inefficient use of public funds and multiple statistical publications.
- Dependence of statistics institutes on political authorities can result in statistical data being released late or not at all or being subject to manipulation.
- Without a guarantee of confidential treatment of responses, individuals and organisations may refuse to answer surveys for fear of the possible consequences, for example on their taxation. This can occur even if there are effective penalties for survey non-response.

Statistics legislation exists within a national legal and administrative framework. Since these structures can differ greatly between countries for historical reasons, there can be no single approach to the development of statistical legislation and to the organisation of administrative structures producing statistics. Whatever approach is adopted, it should conform to the UN fundamental principles of official statistics and to any regional frameworks based on them. International organisations involved in the production and dissemination of statistics, principally UN agencies, similarly adopted Principles Governing International Statistical Activities in 2005. Once again, these are based on the 'fundamental principles'.

The International Statistical Institute (ISI), an independent professional association of statisticians, has drawn up a Declaration on professional ethics for statisticians. The aim of this declaration is to let the statistician's individual ethical judgments and decisions to be led by shared values and experience, rather than by rigid rules imposed by the profession. The declaration documents widely held principles of statistical inquiry and identifies factors that hamper their use. The UN Handbook of Statistical Organisation gives guidance on the legal structure.

A good example of modern statistical legislation is Regulation of the European Parliament and of the Council on European Statistics No 223/2009, also known as the 'Statistical Law' in Europe. In particular, the Statistical Law states that European statistics shall be produced according to the principle of subsidiarity, independence, integrity and accountability of the statistical authorities. It also gives reference to the European Statistics Code of Practice and defines quality principles.

The Statistical Law defines the European Statistical System (ESS): It gives Eurostat a coordinating role on EU level and the NSIs on a national level. Eurostat is also responsible for the coordination of statistical activities of all EU institutions. The Statistical Law gives Eurostat flexibility to respond to future challenges, such as rapidly emerging policy needs, also outside the five-year statistical programmes. At the same time, it provides a stable and transparent legal basis.

In the context of the African Charter for Statistics, a model statistics law for African countries has been developed. Although most African countries have a statistics law, many of these were adopted before the African Charter for Statistics was conceived. This model statistics law enables the countries to align their legislation with the principles of the Charter when reviewing the existing statistics law or developing a new statistics law.

Generic laws on official statistics have also been developed in other regions, such as the model laws prepared by the UNECE ('Generic Law on Official Statistics for Eastern Europe, Caucasus and Central Asia'; 2016) and the Statistical Conference of the Americas of ECLAC ('Generic Law on Official Statistics for Latin America'; 2019).

In recent years, substantial efforts have been undertaken to modernise official statistics. The research was launched by a community of statisticians, involving key actors such as Eurostat, the OECD and UNECE, but also national statistical organisations. The work has been driven forward by the 'High-Level Group for the Modernisation of Official Statistics' (HLG-MOS). The HLG-MOS' working group for supporting standards (develop, promote and support the implementation of statistics standards) has developed several inter-related tools that define how statisticians all over the world envisage their work and the collaboration among them and with partners in the statistical system.

The HLG-MSO has developed a tool that standardises for the activities of the statistical organisations. 'The Generic Activity Model for Statistical Organisations' (GAMSO) describes and defines the activities that take place within a typical organisation that produces official statistics. An initial version of the tool was released in 2015 and a revision was carried out in 2019 (version 1.2). GAMSO develops around four levels:

- The first level (production) is already covered by the 'Generic Statistical Business Process Model' (GSBPM);
- The second level covers activities that enable the organisation to undertake new activities, or to improve the efficiency of existing ones (such as research, development and innovation activities concurring to the development of capabilities);
- The third level includes all the cross-cutting activities required by the organisation to deliver its work programme efficiently and effectively (including business performance and legislation);
- The fourth level addresses the high-level strategy of the organisation and its ability to deliver the products and the services demanded.

To find out more…

United Nations Statistics Division (UNSD): Handbook on Management and Organization of National Statistical Systems

Regulation (EC) No 223/2009 on European Statistics ('European Statistical Law') (2009)

European Statistical system (ESS): ESS website

African Union: Model Statistics Law in the Context of the African Charter on Statistics

United Nations Economic Commission for Europe (UNECE): Generic Law on Official Statistics for Eastern Europe, Caucasus and Central Asia (2016)

Statistical Conference of the Americas of the Economic Commission for Latin America and the Caribbean (ECLAC): Generic Law on Official Statistics for Latin America (2019)

United Nations Statistics Division: Principles Governing International Statistical Activities (2005)

International Statistical Institute: Declaration on professional ethics for statisticians (2010)

Conference of European Statisticians: High-Level Group for the Modernisation of Official Statistics (website)

High-Level Group for the Modernisation of Official Statistics: Generic Activity Model for Statistical Organisations (GAMSO) (website)

Eurostat: European Statistical System handbook for quality and metadata reports, 2020 edition

B.2.2. The statistical process

B.2.2.1. MAIN TYPES OF STATISTICAL OPERATIONS

Official statistics are derived from various sources. Traditionally, the basic distinction is between **administrative** and **survey** data collection. In the former, data is collected without direct contact from respondents; the latter method is based on direct questioning of respondents. Sometimes a mix of data sources, known as **mixed mode**, is used to produce statistics.

In recent years, **Big Data** and **Open Data** have become interesting sources, although their use in official statistics is still limited. Considerable research and development efforts are undertaken in order to develop new and innovative ways to harness these and other emerging data sources for producing official statistics.

Administrative data is produced from information about the population held in **administrative** registers, e.g. registers on trade operators, businesses, vehicles, population, school enrolment, deaths and births and job-seekers. Such data have been collected for an administrative purpose.

It might often be possible to produce official statistics on the basis of administrative data. The costs of collecting administrative data are covered through the budget of the responsible body. Thus, the costs of further use ('secondary use') for official statistics of these data are normally limited

to the additional costs of preparing them for statistical use. In this case, the definition of variables is often different from what is ideally needed for producing statistics, the population covered might be different from the one the statistics aim to measure, and the quality controls are aimed at assuring quality for the original administrative purpose and not for statistical use. However, such issues can be relieved by cooperation between the statistical office and the institutions holding the administrative data. Coordination of the data collection for both administrative and statistical use carry a vast potential for cost reduction and reduction of response burden, while at the same time offering better coverage of the population. In developed countries, where the use of administrative data is more widespread than in developing countries, statistical legislation often grants the statistical office influence on administrative data collections and data.

Examples of administrative records that are used as sources of administrative statistics are reports of schools, monthly compilation of customs statistics, weekly reports by hospitals, daily civil registration of births and deaths (vital statistics) and annual and quarterly surveys of enterprises, based on establishment or business registers. All of these examples are achievable by many developing countries.

Surveys collect data direct from respondents. They can be divided into two main groups:

- **Censuses,** e.g. on population and housing and agriculture, collect data from all population units, for example all persons, all households or all businesses. This method is used when there is a need for exhaustive information about the population, or when there is only a small number of units in the population (e.g. hydro power plants or steel producers). When the population is large, the costs of carrying out a census are very high; the number and complexity of questions that can be asked must therefore be carefully selected to balance the costs and information value. Censuses are also valuable to give a complete overview over a population, which can be used to draw samples for later surveys ('sampling frame').
- **Sample surveys,** e.g. on household expenditure, enterprises, road freight transport, farm structure, income and living conditions, health and labour force, collect data from a sample that has been selected from the target population to be representative of its characteristics. Various statistical methods are used to derive a representative sample, of which the simplest is random sampling. Other techniques are often based on a sampling frame.

Statistical data is also produced through **estimating**, modelling, short-term forecasting and other methods based on existing data pools. These methods are used to provide, for example, current period statistics when data has been only partially received.

How statistics are collected in any particular country depends on legal and administrative structures. Even within the EU, statistics collection methods vary considerably, especially for social statistics. Statistics collection methods can also depend on development levels. For example vital statistics (i.e. births and deaths) that in developed countries usually come from the official register are often collected by survey in low income countries.

The inherent advantage of survey-based data over administrative data is that the **survey** questions can be tailored specifically to give information about the statistical concept of interest. In contrast, administrative data is defined or categorised by the purpose of the data collection, which is generally unrelated to statistics. Survey questions are also more **readily revised** to capture changing population characteristics, although revisions come at the expense of lack of comparability with historic data.

If there exists administrative information which is sufficiently close to the information collected by survey, one may consider replacing this survey (or part of the survey) by the **administrative** information. Clear advantages are **lower costs** (as the costs are already covered by the administrative body collecting and holding the data) and potentially a much larger number of observations, meaning **greater accuracy**.

Several conditions must be considered when considering whether a survey can be replaced by administrative data, most importantly:

- Whether the administrative concepts are sufficiently close to the desired statistical concept, ***or*** whether there is a satisfactory method of converting the administrative concept into the statistical concept;
- Whether the register of units covered by the administrative data is accurate and up to date;
- To which extent the administrative data cover the population covered by the survey;
- Whether appropriate quality controls are in place;
- Whether the long-term availability of the administrative data is assured, or whether the content or the existence of the data is liable to be changed on short notice through administrative or political decisions.

Often, problems in the administrative data concerning incomplete coverage of the statistical population or missing information on certain issues can be addressed through **mixed mode** data collection. This means that the administrative data replaces a greater or smaller part of a survey, but that the information which cannot be extracted from the administrative data is still collected by survey. Another important use of administrative data is to benchmark, quality assess and calibrate survey results.

When a survey can be replaced by administrative data, this may be considered as a sign of development of the statistical system and maturity of the administration. However, basing statistics on administrative data require a good and close cooperation between the statistical office and the administrative body concerned. In this context, a useful tool is to grant the statistical office influence on the set-up and contents of administrative systems and databases through the national Statistical Law. A key issue to consider regarding the quality of information is that respondents trust that data confidentiality is respected by the administrative body; in extension, any statistical use of these data must also assure this confidentiality.

Even though the costs to the statistical office may be substantially reduced, it must still be prepared to pay for the preparation of the data for statistical use and for quality controls and statistical processing. In the end, even the replacement of one single question in a survey may turn out to be a major undertaking.

A good example of the different sources that can be used to produce statistics occurs in vital statistics: data on births and deaths. In developed countries, this information comes from registers of birth and deaths and is usually highly accurate. Some developing countries are also able to maintain these registers to a high standard. Elsewhere, registers might be accurate only in urban areas, may be unreliable or may not exist at all. In these cases, demographic surveys are required to collect the information. If the surveys are intermittent, for example if they are based on the population census and hence occur only every ten years, then problems with respondent recall or survival bias will bring inaccuracies into the data, although methods exist to reduce these problems. In the absence of a register, the best way to collect vital data is therefore relatively frequent surveys of a representative sample of the population, drawn using a sampling frame that is derived from a population census.

In some situations, for example health statistics, statistics from administrative and survey sources exist side by side. They can convey very different information because they are measuring different phenomena: the administrative data will cover events related to government run health facilities, while the sample surveys may cover population health events in part or all of the country. It is possible that neither source provides full coverage of health related issues. In this situation, further analysis of both data sources may provide information that is contained in neither data series alone.

The national accounts are compiled from many statistical sources, including the above sources, to measure exhaustively the flows of national income and expenditure within an economy and with the rest of the world.

Core censuses and sample surveys include:

- Population and housing census
- Agricultural census
- Labour Force Survey (LFS)
- Price surveys
- Household Budget Surveys (HBS).

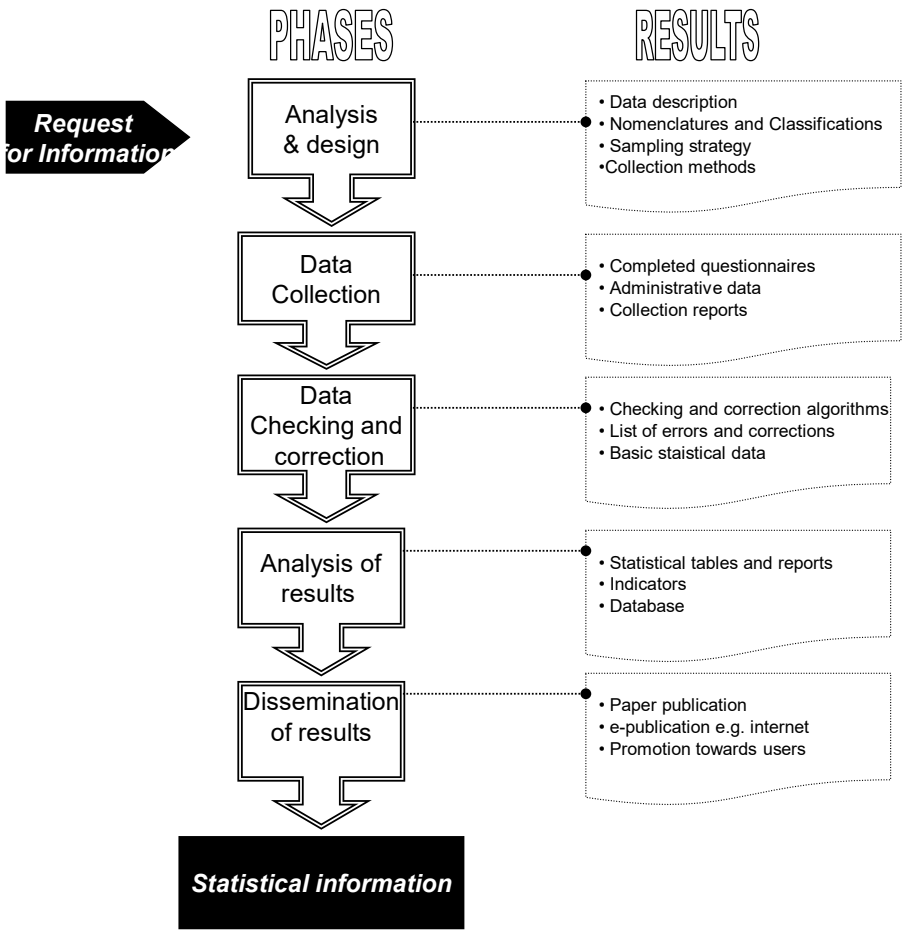
Many developing country household surveys are carried out according to an internationally standardised international format, permitting comparison between developing countries. Some cover more than one policy area, like the:

- Living Standards Measurement Studies (LSMS),
- Demographic and Health Surveys (DHS)
- Multiple Indicator Cluster Surveys (MICS)
- Education Management Information Systems (EMIS)

Box 2.5 shows a generic picture of the process of producing statistics. This applies to all statistical series, whether based on administrative sources, surveys or both.

The statistical system is set in motion by a request for statistical information to support the preparation, implementation or public oversight of an issue of public concern. A mechanism is required to identify and rank the various demands for data so that official statistics stay relevant to public policy priorities. The output of the system is the dissemination of the resulting statistics.

Box 2.5: The organisation of the statistical process



To find out more…

- United Nations Statistics Division (UNSD): World Population and Housing Census Programme (website) and Census Knowledge Base (website)
- United Nations Population Fund (UNFPA): Census (website)
- World Bank: Living Standards Measurement Studies (LSMS) (website)
- USAID: Demographic and Health Surveys (DHS) Program (website)
- UNICEF: Multiple Indicator Cluster Surveys (MICS) (website)
- UNESCO and Global Partnership for Education (GPE): Education Management Information Systems (EMIS) (website) and Efficiency and Effectiveness in Choosing and Using an EMIS. Guidelines for Data Management and Functionality in EMIS (2020)
- OpenEMIS initiative (website)

B.2.2.2. NEW SOURCES OF DATA FOR STATISTICS

For a long time, traditional data sources for the production of official statistics consisted mainly of large operations such as surveys (households surveys, business surveys …) and censuses (population census, economic census …) and of administrative data (tax records for business statistics, schools registers for education statistics …). In the past few decades, the acceleration of digitalisation has led to a growing availability of data([3])([4]) on all aspects of our societies and of our lives. In particular through the 'internet of things' (IoT)([5]), digital data are multiplying exponentially([6]) and are becoming more and more attractive for statisticians: they may usefully complement/validate the results they produce using the traditional sources as well as opening new areas of investigation. The use of digital data may also provide sufficient and relevant information to extend the period between successive surveys and censuses, thus helping statistical organisations to save money (or to spend more efficiently the scarce resources that they have).

For some sectors, in particular, the measurement of the SDGs, the use of digital sources is the only way to produce the whole range of statistics that will match the freshness and the disaggregation required for a permanent monitoring of progress towards achieving the goals. If they open large opportunities for statistics, digital sources may also generate their own limitations. This is linked in particular to the lack of related metadata (the metadata must be created after the data have been generated) or to the fact that the data are owned by third parties and not by their holders (privacy, security …). Using digital data has vast implications for many aspects of statistical work: data access/use, statistical methodology and the legal framework for statistics, quality, the IT environment, and even management and human resources. This may lead to a complete rethink and reorganisation of the production process for official statistics.

Big Data

Digital data are often referred as **Big Data.**. Big Data are often described under the three Vs approach([7]): high **V**olume (amount of data), high **V**elocity (speed of data in and out, in real time) and high **V**ariety (large range of data types and sources). Statisticians often add a fourth V: **V**eracity, referring to a sometimes doubtful quality of the available data (inconsistencies), data which are generally loosely structured and often ungoverned. In front of this "data deluge", statisticians have tried to categorise the various sources that they can access and use. In 2013, under the auspices of the UN statistical Commission, the UNECE proposed a classification organised on three main blocks: the social networks or human-sources information([8]); the traditional business systems or process-mediated data([9]); and the Internet of Things (IoT) or machine-generated data([10]).

In 2015, the UN Statistical Commission established a UN Global Working Group on Big Data for Official Statistics (GWG-BD). Its first task has been to survey statistical organisations to gather information on the big data used for official statistics and the benefits and drawbacks experienced in this area by statisticians all over the world. The main result of the survey has been the identification of promising and less promising big data sources for official statistics and the launch of a series of research and analyses that are bringing the statistical community together under the objective of modernising statistical work and operations. The conclusions of the survey have been somewhat counter-intuitive, as they showed that data from the social media and from mobile phones were less used by statistical organisations than scanner data, satellite imagery and web-scraping([11]).

Statisticians have identified several benefits that can be drawn from the use of big data; not only for the production of statistics, but also for building new indicators covering new priority policy areas or feeding nowcasting and forecasting([12]). What is new is the recognition of the respective benefits from "designed data" (data with a pre-specified purpose and use) and "organic data" (from digital sources), even if the latter out-figures the first with its large volumes. There is an emerging consensus among statisticians that the two sources of data must be combined in a multifaceted statistical production process.

([3]) Cukier, K. and Mayer-Schoenberger, V.: "Datafication: a technological trend turning many aspects of our life into data which is subsequently transferred into information realised as a new form of value", in 'The Rise of Big Data', Foreign Affairs, May/June 2013

([4]) O'Neil, C. and Schutt, R. (2013): Doing Data Science, p. 406, O'Reilly Media, 2013

([5]) https://internetofthingsagenda.techtarget.com/definition/Internet-of-Things-IoT

([6]) https://www.thedigitalsociety.info

([7]) Gartner (META group) report : Application Delivery Strategies, blogs.gartner.com, 6 February 2001

([8]) Social Networks: Facebook, Twitter, Tumblr, etc., blogs and comments; Pictures: Instagram, Flickr, Picasa etc., Videos: YouTube, etc.; Internet searches, user-generated maps.

([9]) Data produced by public agencies, medical records, data produced by businesses, commercial transactions, banking/stock records, e-commerce, credit cards.

([10]) Derived from the phenomenal growth in the number of sensors and machines used to measure and record the events and situations in the physical world. Data from sensors: fixed sensors (home automation, weather/pollution sensors, traffic sensors/webcam, scientific sensors, security/surveillance videos/images) and mobile sensors (tracking - mobile phone location, cars, satellite images); Data from computer systems: logs, web logs. See the Classification of Types of Big Data developed by the UNECE Task Team on Big Data in June 2013 and the Note by the United Nations Statistics Division 'New data sources for official statistics – access, use and new skills', UNECE Conference of European Statisticians (CES), ECE/CES/2019/41, 2019

([11]) More than 80 percent of the OECD countries have used or considered using web-scraping data and scanner data. Social media and mobile phone data are for the moment much less used, due to a number of factors, in particular issues related to privacy and confidentiality. (Note by the United Nations Statistics Division 'New data sources for official statistics – access, use and new skills', UNECE Conference of European Statisticians (CES), ECE/CES/2019/41, 2019)

([12]) Landefeld, S.: 'Uses of Big Data for Official Statistics: Privacy, Incentives, Statistical Challenges, and Other Issues', Discussion Paper presented at the International Conference on Big Data for Official Statistics, Beijing, China, 28 – 30 Oct 2014

Box 2.6: Big Data in official statistics

Big Data in official statistics

Using Big Data in official statistics poses several challenges that are, on one side, related to the inherent complexity of this data management paradigm, and, on the other side, related to the official nature of the products provided by NSIs.

We envision four major challenges for Big Data usage in Official Statistics, namely:

1. Dimension;
2. Quality;
3. Time dependence;
4. Accessibility.

Among these, Quality and Accessibility seem to be even more critical …"

Source: 'Placing Big Data in official statistics: a big challenge?', presented at Eurostat's NTTS 2013 conference

Social indicators and Big Data

Big Data is one of the most discussed topics in Official Statistics. The potentialities of this new data source are relevant: Big Data can offer new macroeconomic now-casting opportunities for policy-makers, providing complementary and faster information on the state of the economy and its development.

In particular, the combination of data from multiple sources can provide a better overview of the economic phenomena. Furthermore, in Official Statistics the integration of Big Data with traditional data sources is a challenging opportunity for the construction of social and economic indicators. Actually, it is unlikely that Big Data will completely replace survey-based activities: they can provide complementary and specific information about a topic or they can help to asses unmeasured or partially measured socioeconomic phenomena.

At international level, the discussion about social indicators and in particular quality of life, well-being and 'Beyond GDP' activities is under constant debate. The measurement of the quality of life and wellbeing from an individual level perspective has become very important with the rise of "Social Indicators Movement" and social media represents a promising data source to study new topics and aspects. Within the European Statistical System, the "Quality of life indicators framework" has been developed to measure the quality of life considering not only the GDP, but also other complementary and subjective aspects. However, it is a static measure and the opportunities deriving from Big Data and, in particular from social media analysis is that we obtain dynamic indicators that show the changes over time and the reaction of people to particular events.

On the other hand, new issues are rising. For example, social Big Data indicators "usually do not correspond to any sampling scheme and they are often representative of particular segments of the population".

Source: 'Social indicators and Big Data: a case study on social indicators and active citizenship', poster presentation at Eurostat's NTTS 2019 conference (p. 12); see also Poster and Abstract

Under the generic term of Big Data, some specific sources and practices may be highlighted for their promising use by official statistics.

Satellite data

Over the last few decades, the volume and quality of geo-spatial observations has increased dramatically: technical progress and the multiplication of satellites is leading to a workflow of images generated from multiple sensors and with different resolutions, thus opening huge opportunities for study and analysis. In 2017, the GWG-BD presented to the UN statistical Commission a handbook([13]) to guide National Statistical Offices considering the use of satellite imagery/data (satellite Earth observations) for official statistics. Earth observation allows studying the Earth from space; its land surface, the oceans and the atmosphere. Through specific algorithms (empirical, semi-empirical, semi-analytical inversion, object-based image analysis, artificial intelligence and machine-learning methods), these observations can be translated into spatial, spectral, and temporal information, which can then be related to indicators.

The implications for statistical work are very promising, particularly for the creation and updating of registers, sampling, data confrontation and the enhancement of the measurement of economic, social and environmental phenomena.

Box 2.7: Using satellite data to monitor development in Africa: The Africa Regional Data Cube (ARDC)

The Africa Regional Data Cube (ARDC) is a tool that harnesses the latest Earth observation data and satellite technology to help Ghana, Kenya, Sierra Leone, Senegal, and Tanzania address various issues relating to agriculture, food security, deforestation, urbanization, water access, and more.

Source: Global Partnership for Sustainable Development Data: Africa Regional Data Cube

([13]) United Nations Task Team on Satellite Imagery and Geo-spatial Data: Earth Observations for Official Statistics – Satellite Imagery and Geospatial Data Task Team report (2017)

Scanner data

The introduction of barcode scanner technology during the 1970s and its growth in the 20th and 21st centuries has enabled retailers to capture detailed information on transactions at the points of sale. Scanner data([14]) is high in volume and contains information about individual transactions or summaries, dates, quantities and values of products sold, and product descriptions. As such, it is a rich data source for NSOs and is more and more frequently used for calculation of consumer price indices (CPI). Scanner data are gathered either directly by the NSOs through agreements with retailers or indirectly from intermediaries or market research companies.

Box 2.8: Eurostat: Practical guide for processing supermarket scanner data

Scanner data has several advantages over traditional price collection:

- It provides information on the actual expenditure for all item codes sold (by the retailer whose data is used);
- It provides price information on actual transactions over longer periods of time rather than on just one day per month;
- It excludes items not actually sold and includes certain types of discounts;
- It is a better source of information for the inclusion of new items in the HICP than reliance on price collectors;
- It can reduce the administrative burden on retailers and save costs on price collection.

Using scanner data holds the promise of improving the quality of the HICP.

Source: Eurostat's 'Practical guide for processing supermarket scanner data' (2017)

Citizen-generated data

"Citizen-generated data (CGD) are data that people or their organisations produce to directly monitor, demand or drive change on issues that affect them"([15]). CGD are a useful complement to institutional data, as they can highlight issues that are important to people and feed their views into a higher level of policy debates. They can also be used to verify official narratives and datasets. The initiatives that create CGD can also empower people, giving them a way to engage with political processes that might otherwise seem removed from their lives. However, one of the drawback of using CGD is that citizens may actively contribute data, but generally only if this may bring a benefit to them. This is one of the reasons why, together with potentially substantial costs, CGD are not much used by statistical organisation despite promising potential benefits.

Box 2.9: PARIS21: Why are citizen-generated data useful for NSOs?

Countries need data at an unprecedented level of granularity to respond to crisis and its effects, and to monitor their national, regional and global agendas, ensuring that no one is left behind. Citizen-generated data (CGD) have the potential not only to fill some of those data gaps, but its use by NSOs can facilitate engagement with data users and enhance trust in data.

- **Close data gaps:** CGD might enable policymakers to track sensitive issues at the communal level for which official statistics are often unavailable, for example CGD on violence against women. Furthermore, Sustainable Development Goals (SDG) indicators on areas such as reproductive health, disability or environmental issues, often uncovered by official statistics, might also benefit from CGD.
- **Strengthen engagement with data users:** Within the data ecosystem, CGD producers are also data users. Hence, the collaboration between NSOs and CGD producers is an opportunity for NSOs to reach out to their data users, strengthen their relationship with them and better understand their needs.
- **Enhance trust in data:** Collaboration between NSOs and CGD producers can help to enhance institutional trust. Enabling a space of dialogue and cooperation with non-conventional data producers is an opportunity for NSOs to communicate the integrity, transparency, impartiality and confidentiality of their practices.

Source: PARIS21: Citizen-generated data

Web scraping

Web-scraping (also called web harvesting or web data extraction) is a process by which information is collected/extracted and copied from the Internet for analysis. It can be done manually or using automated methods (a web browser for example). Today, many NSOs are gathering information from the Web as a component of applications used for web indexing, web mining and data mining. These applications may cover traditional statistics such as price monitoring or comparison or weather data monitoring; they may also open new areas of research through for example tracking online presence and reputation.

([14]) UN Committee of Experts on Big Data and Data Science for Official Statistics: Task Team on Scanner Data (website)
([15]) CIVICUS: What is citizen-generated data and what is the Datashift doing to promote it? (brochure)

Box 2.10: Web-scraping – Canada and Germany

Statistics Canada's Code of Ethics for Web-Scraping (extract)

In this information era, it is more important than ever to provide Canadians with reliable and timely data in order to enable informed decision-making.

Statistics Canada is using web scraping to gather data efficiently. Web scraping is a process by which information is collected and copied from the Internet for analysis. It can be done manually or using automated methods.

The use of web scraping is part of a broader effort to reduce burden on businesses and organizations while continuing to provide high-quality, timely data in a cost-effective manner.

In the spirit of openness and transparency, Statistics Canada is committed to respecting the following best practices when conducting web scraping.

Statistics Canada will:

- Transparency
  - carry out web scraping activities in a transparent, consistent and ethical manner;
  - notify the relevant companies that web scraping activities will be taking place;
  - publish the results of the web scraping activities on its website;
  - conduct all web scraping activities on Statistics Canada authorized computer equipment connected to its highly secure networks and secure the data on encrypted servers.
- Ethics
  - use web scraped data appropriately and responsibly in statistical programs in order to facilitate fulfilment of its mandate;
  - collect only data available to the public from businesses and organizations for use in its statistical and research programs;
  - take steps to minimize burden on the websites, such as scraping during off-peak hours and only as needed, and coordinating data requirements across statistical programs to avoid duplicating efforts;
  - use an application programming interface (API) when possible in lieu of web scraping;
  - limit collection to only what is necessary and proportional for the production of the required statistical outputs.

Statistics Canada will not:

- scrape personal information about individuals from any website;
- scrape personal information that could establish a profile of individuals;
- resell web scraped data or use them for commercial purposes;
- scrape any information that will not be used to produce statistical outputs.

Source: Statistics Canada's Code of Ethics for web-scraping

German system for web-scraping of price data and the issue of dynamic pricing

Dynamic pricing is the use of automatic algorithms to change prices at short notice due to changes in market conditions or due to parameters indicating a consumer's willingness to pay. The application of a dynamic pricing pattern is not new but has become more obvious since the growing importance of internet purchases and has additionally become popular for online retailers in order to attract customers or to increase profits. Dynamic pricing must be distinguished from the phenomenon of individualised pricing which is defined as the use of automatic algorithms to change prices due to characteristics of an individual consumer, such as the device used for purchase, the location of purchase, browser history or simply gender-related characteristics. While algorithms of dynamic pricing treat all consumers equally, individual pricing only affects consumers with pre-defined characteristics.

More and more information is freely available on the internet. Some of this information may be used for the production or validation of statistics. Web scraping has become an acknowledged technique for online data collection. Many national statistical institutes make use of web scraping for their production. One of the great advantages of using web scraping is, once a program is successfully launched, nearly infinite data collections at web shops or other web pages are possible to initiate. Web scraping therefore supports increasing the quality of statistics by simply having more data available. One of the disadvantages of web scraping is that, in the beginning, a considerable amount of effort is setting up a web scraping program which requires in-depth programming skills in appropriate languages, such as Java, Python or R. The application of web scraping for all online data collections is therefore staff-related.

Dynamic pricing of online retailers may lead to a bias in the index calculation since the traditional way of price collection via internet is done generally at one time during the month and therefore cannot capture rapidly changing prices. Therefore, in order to display reliable price developments in indices, consumer price statistics needs to constantly monitor the pricing behaviour on the internet and apply methods to evaluate the large amount of data and integrate very volatile price developments into price indices.

Source: 'Web scraping for beginners - Simple automation of online data collections', presented at Eurostat's NTTS 2021 conference

Open data

"Open data is data that can be freely used, re-used and redistributed by anyone - subject only, at most, to the requirement to attribute and share alike."([16]) Open Data is distinct from Big Data, but some valuable Open Data is also Big Data, such as weather and satellite data, geospatial data, and some kinds of data on health, finance, energy and the environment. The distinguishing feature of Open Data is not its size or complexity, but the fact that it is made available as a public good([17]). In general, much of the most important Open Data comes from public sources. In recent years, many countries have signed commitments to open data and open government practices. Despite these commitments, many governments have not fully realized the potential of providing open access to the full range of data produced and maintained by their national statistical systems.

Box 2.11: Open data barometer

Good quality open data needs to be:

- **Available online** so as to reach the widest practical range of users and uses.
- **Machine-readable** so that large datasets can be analysed efficiently. More and more data is becoming available in a reusable format but almost half of the data available is still published in non-machine-readable formats.
- **Available in bulk** so that it can be downloaded as one dataset and easily analysed by a machine.
- **Free of charge** so that anyone can access it no matter their budget. Particularly worrying is the case of land ownership data, only free of charge for about one-third of the data available.
- **Open-licensed** so that anyone has permission to use and reuse the data. Most data is currently not available under open licences.

Source: Open Data Barometer (4th Edition) — Global Report (2017)

Box 2.12: Open Data Watch: Open Data Inventory

The Open Data Inventory is designed to evaluate the coverage and openness of data published on NSO websites*. While some countries have more than 100 offices and agencies that produce official government statistics, we only consider data that can be found on the NSO website or for which the NSO website provides a direct link. Currently, the most accessible data for many countries are available only on the websites and in the databanks of international organisations. This should not be the case. Governments and their statistical offices are the source of much of the data that appear in international databases and should provide open and timely access to these data.

Source: Open Data Watch: Open Data Inventory

(*) Open Data Watch: List of National Statistical Offices Online

Towards Smart and Trusted data

Recent reflections on the use of Big Data for Official Statistics have evidenced two main aspects. On one hand, some of the new data sources offer enormous potential (in terms of timeliness, coverage, details and insightfulness) but, on the other hand, such big opportunity comes along with major challenges in almost any implementation aspect (methodological, technical, organisational and legal).

But the data revolution, generated by the rapid evolution of our "datified world", is not only about more available data. It is also about changes in the demand for information and the way this information is consumed and circulated: it is linked to changes in perceptions, expectations, behaviours and relations between people. "The traditional model of ***pulling data in*** – from data sources to NSIs – will not fit in the new scenario. Instead, we envision a model based on ***pushing computation out*** – from NSIs to the data acquisition systems. This shift of focus from sources to systems lies at the core of what we call ***Smart Statistics***."([18]) This new environment may impact considerably on the future organisation of the statistical work.

Public-Private Partnerships (PPP) for statistics([19])

As illustrated in the sections above, recent years have seen a growing literature and reflection about the potential applications of big data in official statistics and policy. The lessons drawn so far is that a combination of "designed data" with "organic data" is part of the ticket to the future of statistics. However, these exponentially increasing amounts of valuable and frequent data are mostly held by the private sector. The NSOs must more and more frequently negotiate PPPs in order to have access to data that can greatly help the statistical production. There are advantages in mobilising big data such as cost-effectiveness (the cost of transfer of existing data is marginal), timeliness (real time availability), granularity (in time, space and theme) and potentiality for new indicators. However, drawbacks also exist in the form of secrecy linked to competitive risk, issue of privacy and ethics (data sharing), legal constraints (no clear mandate for NSOs to deal with micro-data), incentives and sustainability (different time perspective for benefits) and technical challenges (processing of decentralised, unstandardised, unstructured and unrepresentative data). All these elements must be considered for assessing the extent of a mutually beneficial PPP([20]).

([16]) Open Data Foundation: Open Data Handbook (website)
([17]) Petrov, O., Gurin, J. and Manley, L.: Open Data for Sustainable Development, World Bank Group, Connections briefs on Transport & ICT, 2016

([18]) Eurostat: Trusted Smart Statistics: A reflection on the future of (Official) Statistics, presentation at the Q2018 European Conference on Quality in Official Statistics, Krakow, Poland, 2018, and Eurostat: Trusted smart statistics: Motivations and principles, Statistical Journal of the IAOS 35, pp. 589–603, 2019
([19]) Robin, N., Klein, T. and Jütting, J.: Public-Private Partnerships for Statistics: Lessons Learned, Future Steps: A focus on the use of non-official data sources for national statistics and public policy, OECD Development Co-operation Working Papers, No. 27, OECD Publishing, Paris, 2016
([20]) Robin, N., Klein, T. and Jütting, J.: Public-Private Partnerships for Statistics: Lessons Learned, Future Steps: A focus on the use of non-official data sources for national statistics and public policy, OECD Development Co-operation Working Papers, No. 27, OECD Publishing, Paris, 2016

Box 2.13: Some drawbacks of Public-Private Partnerships (PPP)

Public Private Partnerships (PPPs) harness both the public and the private sector to provide goods and services conventionally supplied by the public sector, while easing the tight budget constraints on public spending. We found that despite PPPs have the potential to achieve faster policy implementation and ensure good maintenance standards, the audited projects were **not always effectively managed and did not provide adequate value for money.** This was also due to the **lack of adequate analyses, strategic approaches towards the use of PPPs and institutional and legal frameworks**. With only few Member States having consolidated experience and expertise in implementing successful PPP projects, there is a high risk that PPPs will not contribute to the expected extent to the aim to implement greater part of EU funds through blended projects including PPPs.

Source: European Court of Auditors: 'Public Private Partnerships in the EU: Widespread shortcomings and limited benefits', Special report 09/2018

B.2.2.3. PUBLICATION, DISSEMINATION, COMMUNICATION AND VISIBILITY OF STATISTICS

Statistics, and in turn the resources that are allocated for their production, are only legitimate if they are used, if they serve to answer/fulfil needs from users. This legitimacy builds on several components that all converge to quality statistics, but that also concur to the visibility of statistics. These components, all originating from the Fundamental Principles of Official Statistics, translate into the following concepts: relevance (the data fulfil the users' needs), completeness (all needed statistics are available), timeliness (statistics are produced and released according to a clear and available calendar), accuracy (reflecting the closeness of the measurement to the reality that they measure), accessibility (statistics are easily consulted and acquired by all users), clarity (statistics are accompanied by adequate meta-data), transparency (statistics are available in a comprehensible, accessible, and timely manner), comparability (compliance with international norms and standards) and coherence (statistics are logically coherent and reliable). They must be seen as "wishful thinking" from statisticians but they all have concrete and practical translations in the day-to-day statistical work. They are crucial for all statistical activities and operations, including those that concur to disseminating and communicating statistical products; they are key for building trust and confidence with the users and thus for contributing to the visibility of official statistics in today's world of information.

Publication

The overall purpose of official statistics is to serve the information system of democracies, feeding well-informed debates, contributing to evidence-based decision making and measuring progress and performances of policies and programmes. The First Principle of the UN Fundamental Principles of Official Statistics clearly states the responsibility of statistical organisations for releasing information to the public. This is the professional responsibility of statisticians to make the statistics that they produce available to the entire public. In the past, this responsibility was not entirely integrated into usual statistical practices. Today, releasing the data produced is systematic. This has generated new expectations from the users of official statistics and new behaviours from the producers.

Box 2.14: Fundamental Principles for Official statistics – Relevance, Impartiality and Equal Access

Principle 1: Relevance, Impartiality and Equal Access. Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information.

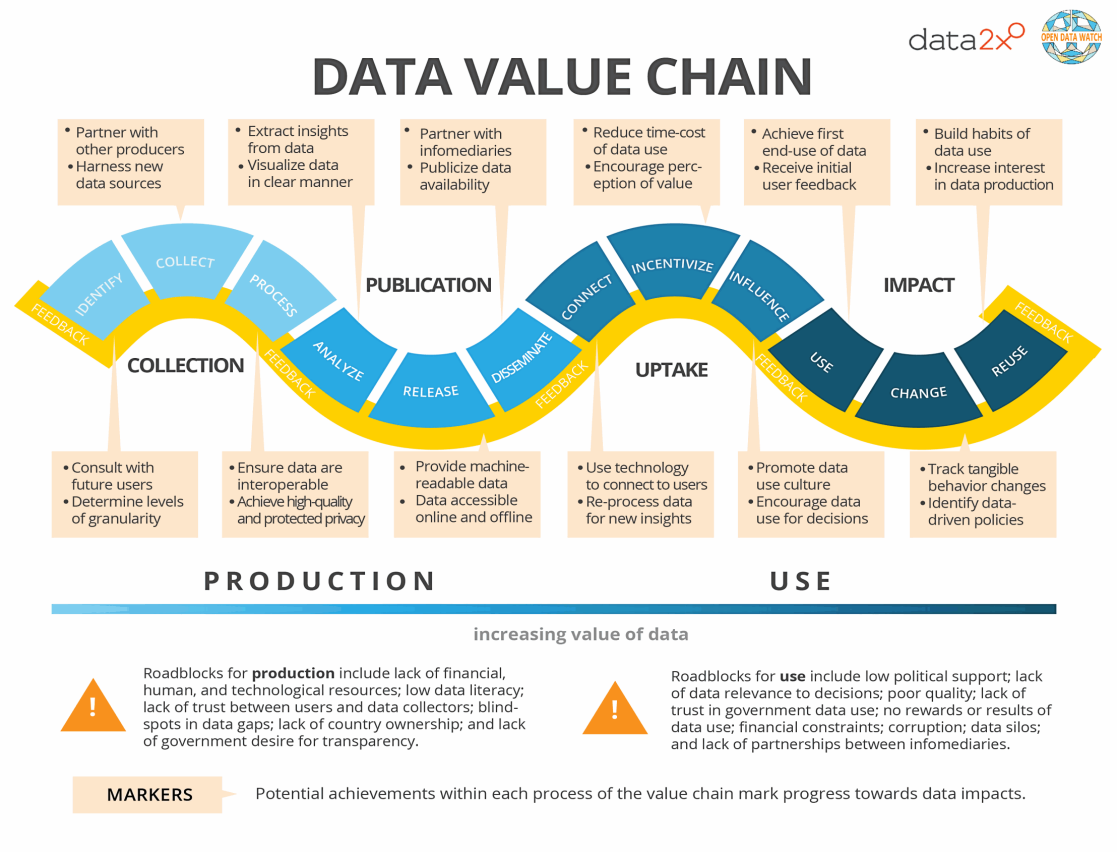
Source: United Nations Fundamental Principles for Official statistics: Principle 1 - Relevance, Impartiality and Equal Access

Publication is also a key step in the data value chain. The data value chain approach considers the whole eco-system of statistics and its potential for generating value by linking all steps from the gathering of data sources to the final use and analysis of the data. Four successive steps are usually considered in the chain: ***collection*** (identify, collect and process); ***publication*** (analyse, release, disseminate); ***uptake*** (connect, incentivise, influence); and ***impact*** (use, change, re-use). All these steps involve both data producers and data users. Good coordination within the whole eco-system is thus essential.

Box 2.15: The data value chain

The second stage on the value chain is ***publication***. Once data have been collected, the data and the accompanying metadata must be published in such a way that data users can access them. The publication stage involves three activities: **publishing** data with appropriate documentation in online and offline formats; **disseminating** the data to prospective users; and **analysing** data to extract useful information.

Source: Open Data Watch: The Data Value Chain – Moving from Production to Impact



Dissemination

Data dissemination is a phase in the statistical processes, in which the data collected and compiled by statistical organisations are released to the public. The dissemination process is the result of an analysis of who the users are and what their respective needs are. This allows giving each of them the products that are the most adequate in terms of content (theme and topic, disaggregation as well as level of analysis and format) and in terms of channels/medias of dissemination (from paper to social media). In general, decision-makers are interested in macro and headline indicators that are provided online or through reports and short leaflets, while researchers will look for more detailed and micro statistics accessible online. The general public focuses on the data that make the news and on short, concise and attractive messages.

Box 2.16: UNECA: Audience and Information

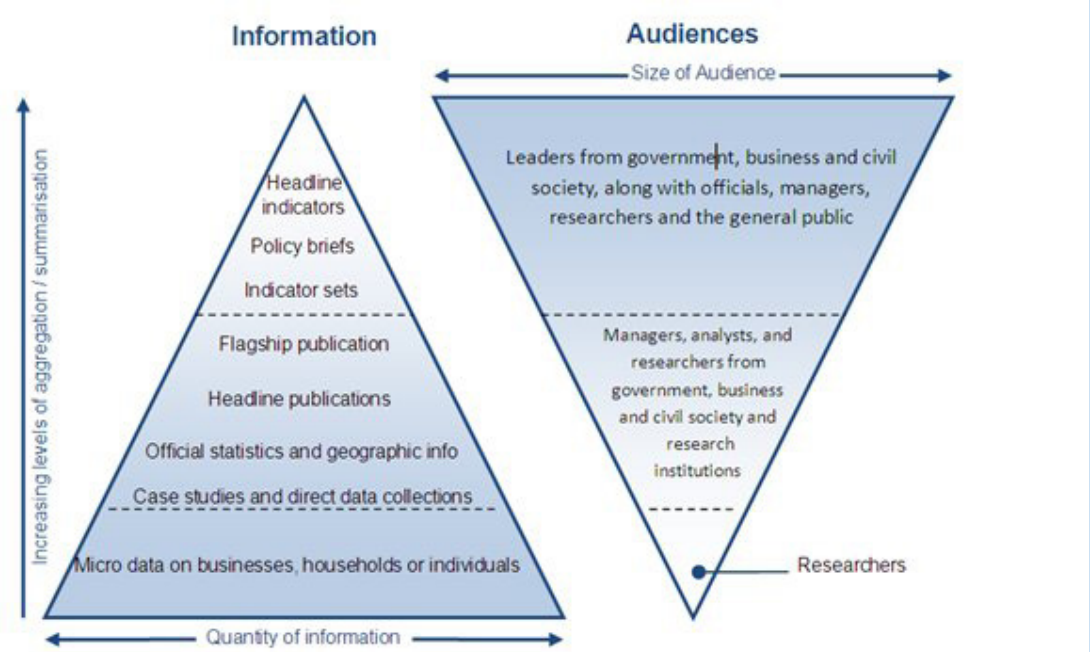


Figure 1: Information and audience model for the ECA data and related information and knowledge products.

Source: UNECA

Dissemination should follow a certain number of rules that have been already discussed above, derived from the Fundamentals principles for official statistics. It is crucial for statistics organisations to define and respect a release calendar for the dissemination of their products. It is important for the users to know what will be released and when in order to plan their own works and analyses. It also guarantees that all users are treated equally and have an equal access to data. The simultaneity of the release must build on the timeliness and clarity of the products and if there are changes in the calendar and/or in the content, this must be notified clearly and in advance. What applies to the data must also apply to the accompanying meta-data. In order to generate trust and confidence in official statistics, the products must also be objective and non-partisan, building on the professionalism and independence of the statisticians, which are core aspects of their credibility. The respect of confidentiality and the attention to security issues are also to be considered seriously. These rules are major safeguarding references for the statisticians and must dictate the way they relate with their users when releasing their products.

Box 2.17: Eurostat: Dissemination policy

Eurostat's dissemination policy is characterised by free access to European statistics for all users. This policy respects a number of principles, such as objectivity, impartiality, confidentiality and accessibility, which are laid down in Regulation (EC) N° 223/2009 on European statistics and in the European Statistics Code of Practice.

Eurostat provides its data free of charge via the Eurostat website as well as a wide range of products and services, including assistance to all types of users: newcomers, sporadic visitors or more experienced users.

Source: Eurostat: Dissemination policy and Protocol on impartial access to Eurostat data for Users (2014)

Making statistical data more attractive to the users has been on the agenda of all the national statistical offices for some years now. Everybody realises that an investment must be made on the presentation and attractiveness of the data, in particular to better match the requirements from the new age in communication and from the acceleration of and change in the consumption of information, including statistics. However, giving more emphasis on the presentation of the data may reveal to be challenging in a statistical environment where the priority has always been put on production. Changing mentalities and practices within the statistical community is a long shot task and it may also be costly in terms of technological development and human capacity building.

Dissemination products

Statistical products are, generally, information dissemination products that are published or otherwise made available for public use. They include general-purpose tabulations, analyses, projections, forecasts, or other statistical reports([21]). They may consist of yearly, quarterly or half-yearly statistical reports, sector publications and reports, press releases, infographics and video-graphics, animated products, maps or databases([22]).

Box 2.18: Department of statistics – Singapore

"As the National Statistical Office, we deliver insightful statistics and trusted statistical services that empower decision making. Our data are used by public sector agencies, policymakers, international agencies, businesses, researchers, analysts and the general public as vital inputs for monitoring economic and social trends, policy formulation and evaluation, planning and research, and international reporting.

Statistical information, analyses and visualisations are communicated and disseminated through user-friendly platforms such as our website, mobile and electronic services."

Source: Department of Statistics Singapore: Visualising Data

Data visualisation products([23]) are more and more developed by statistical organisations as they have several advantages over other products. They are more attractive than standard tables and graphic presentations of the data and they are thus well suited for the dissemination through social media and for targeting younger audiences. Their production requires an additional reflection/investment as to prioritize among messages or indicators; as a consequence, they generally allow better targeting of the audience. Their elaboration requires a multidisciplinary look and perspective that must bring together statisticians (for the data), communication officers (for the message), designers (for the content organisation and drawing) and IT specialists (for the visualisation tools): it is a cooperative team work that may also strengthen the internal organisation of the institution and lead to a revamping of the dissemination strategy([24]).

Box 2.19: UNECE "Making Data Meaningful — Part 2: A guide to presenting statistics"

"Emerging tools and techniques are providing new opportunities for visualizing data and making them more interesting to users. Dynamic table, chart and map generators allow users to manipulate data and create their own visualizations. Animation and video are engaging formats, somewhat like television. They do a good job of illustrating changes over time and include verbal or textual descriptions to explain the meaning behind the numbers"

Source: United Nations Economic Commission for Europe (UNECE): Making Data Meaningful — Part 2: A guide to presenting statistics

([21]) ESS Vision 2020 ADMIN (Administrative data sources) project: Definition of 'Statistical product'

([22]) United Nations Economic Commission for Europe (UNECE): Making Data Meaningful — Part 2: A guide to presenting statistics, Geneva, Switzerland, 2009

([23]) Data visualisation products can be non-animated and/or animated, with or without visual effects, present data only or data and text.

([24]) Office for National Statistics (United Kingdom): Presenting data — Guidance for creating charts and tables and best practice for using colour in your work (website)

Box 2.20: Data visualisation example – Canada

Statistics Canada - Behind every number: A portrait of Canada (online video, 2017):

https://www.statcan.gc.ca/eng/sc/video/portraitofcanada

Data portals are instruments that make large sets of data available to the users, from different sources and covering different topics, with a single point of entry. They can build on data only, but most often they also offer applications for constructing tables and graphs or for carrying out data analysis. Normally, they also provide references on methods and norms. They are generally used for presenting the results of large statistical operations (surveys and censuses), but not only. They may be open to all or accessible only with a password. However, with the rapid spread of the Open Data approach, the use of password restricted access is quickly disappearing. The measurement of the SDGs and its implication in terms of data sources is[25] bringing new considerations to the content, format and access for data portals.

Box 2.21: Examples of country data portals – Oman and Uganda

Oman

The Data Portal of the National Centre for Statistics and Information is a free and data-sharing portal. Anyone can access data relating to the Sultanate of Oman. The Data Portal provides many datasets from different entities, for everyone - citizen, investor, researcher or developer.

Source: National Centre for Statistics and Information, Sultanate of Oman: Data Portal

Uganda

The CountryStat data portal in Uganda includes datasets from the following domains: Production, Food availability, Trade, Machinery, Population, Prices, Value added, Land use, Employment, Water, Livestock, National account, Fishery and Forestry. CountrySTAT allows for the analysis of data coming from different sources to be manipulated and visualized directly online. Various types of charts are available to allow users to be able to perform further analysis. CountrySTAT supports online data filtering. Users can skim through complex data sets and easily locate the desired information. Sub-national data can be visualized through maps to allow a clear and immediate view of statistics at lower administrative levels.

Source: Uganda Bureau of Statistics (UBOS): Data Portals

([25]) Greenwell, G., Kinyua, J., Klein, T. and Ranjan, R.: Making Data Portals work for SDGs: A view on deployment, design and technology, PARIS21 Discussion Paper No. 8, 2016

Channels for dissemination

The number and variety of channels for dissemination of statistics have increased dramatically in the last 20 years. Initially, dissemination was mainly made using paper publications (yearbooks, newsletters, press releases …). The costs[26] were high, and as a consequence much data remained in the drawers of statistical organisations. In the 1990s, CD-ROMs were extensively used to market and circulate large data sets. The cost remained high. Later, web-based and online dissemination has developed considerably as a result of progress in IT tools for data archiving, storage and access, but also to increased access and use of the internet around the world. Data portals make the results of large statistical operations (surveys and censuses) available and facilitate the users' access to the data. The cost of dissemination has decreased. However, such tools are not adequate for all users. More recently, social media (Twitter, Facebook, LinkedIn, Instagram, YouTube …) as well as the development of mobile apps have opened new opportunities to access and target different categories of users. Today, most statistical organisations communicate with their users through posting key messages and results on the social media (in addition to the more 'traditional' ways of dissemination through online datasets, online analytic articles and downloadable reports). This evolution may prove to remain costly, as the statistical products have to be multiplied (an effective presence on social media requires posting regular information) and their attractiveness depends mostly on data visualisation. This technique is not fully mastered by many statistical organisations. It also requires investments in terms of IT tools (motion design, video …) and specialised human resources (designers and communicators, in particular).

Box 2.22: Statistical Yearbook replaced by digital communication – Germany

The German Statistical Yearbook was hit by the transition to digital visualisation of data. The last edition bode its farewell at a press conference on 30 October 2019:

"Digitisation is shaping the statistics of the 21st century. The expansion of our digital communication is necessary if we want to remain the leading provider of statistical information about Germany. We say goodbye to the Statistical Yearbook, which stood for our activities for almost seven decades. The yearbook goes, but the data remains. They are already available via our online services in greater abundance than ever before… One thing is clear: Rigid reference books are hardly in demand today. The trend is towards up-to-date, digitally available information. The information is researched online."

Source: Destatis press conference, Wiesbaden, Germany, 30.10.2019 (in German)

Box 2.23: We are Statistics Canada – YouTube channel

Statistics Canada presents data through its own channel on YouTube, featuring videos containing background information, instructions and support for the Census 2021, main figures on Canada, explanations of key terms such as GDP and Consumer Price Index, etc.:

https://www.youtube.com/user/StatisticsCanada

Relations with the users and users' needs

What exactly do these statistical data mean? How far can I trust them? Using statistics often implies asking yourselves these kind of questions. The work of a statistician is based on conventions that may result in complex concepts, methods, tools and processes. As a consequence, this work is largely unknown or not well understood by statistical novices or non-statisticians (which most users are). Producers and users of statistics speak different languages, but they need to talk to understand each other and collaborate better for the benefit of all.

Users are not homogeneous. They cover very different groups who have different ways of consuming statistical information. They may be institutional users or not; they may be very heavy, heavy, light, occasional or potential consumers of statistical information; they may have a general interest, be interested in a very specific subject or be involved in research[27]. In the relations with them, one size (one mode, one format) does ***not*** fit all.

It is highly recommended to split the users into segments, in order to relate more efficiently with each group of users and work in closer proximity (organise visits, make invitations, set up focus groups, arrange in-depth interviews). This will also allow better targeting of the services and products offered by the statistical office. In the past, statistical offices often applied one-way avenues of communication with the users (pulling out), asking for their feed-back on the available products through satisfaction surveys or posts on dedicated sections of their websites. More recently, the segmentation of users has allowed the statistical offices to enter into in-depth exchanges with specific groups of users (pushing in). It is only recently that, instead of only relating with the users, many statistical offices have gone a step further by engaging with the users. The new approach establishes a two-ways avenue between users and producers of statistics, through which the two groups may collaborate more closely The users are more involved in the design of the statistical products that they will later use; in turn, the producers become more aware of the users' needs and may help them to better understand how the statistics may be used.

(26) And not only on monetary terms. The dissemination of paper publications required a strong organisation and management in order to make sure that the documents were reaching the right targets. In addition, this type of products was not suited for mass dissemination.

(27) European Statistical Advisory Committee (ESAC): The Users of Statistics and their role in the European Society (2015)

Box 2.24: Why do we need to engage with users?

We need to engage with users so that we:

- prioritise our work based on what statistics users want;
- understand what users do with our data;
- understand what is an acceptable level of quality;
- present statistics when they want them and in a way they understand;
- can build trust in our statistics;
- maximise the use of our statistics;
- can test experimental statistics;
- can make users feel a part of the process.

Furthermore, the Code of Practice for Statistics says:

"*Users of statistics and data should be at the centre of statistical production; their needs should be understood, their views sought and acted upon, and their use of statistics supported.*"

Source: Government Statistical Service (United Kingdom): Why we need to engage with users (2019)

Box 2.25: Measuring data use

If the first rule of communication is "know your audience," then web analytics should form the foundation for NSOs' digital dissemination strategies. The analytic tracks left by website users provide evidence of what users are looking for and what they found. To better anticipate what users need, NSOs should consider using feedback forms, user surveys, focus groups, and advisory councils complemented by web traffic data. Changes made in response to user demands should always be reflected in the data. An effective web analytics and optimization program creates a robust feedback loop that connects data providers, content creators, website managers, and IT staff back to their users. This study reaffirms our belief that NSOs should view web analytics as a vital resource available to them to help disseminate data effectively.

The study also confirmed that NSO websites and data portals themselves are important vehicles for data dissemination.

Source: Open Data Watch: Measuring data use – an analysis of data portal web traffic (2018)

There is one category of users who may be an efficient relay for disseminating statistics and improving the trust that other users have in statistical organisations: journalists([28]). Establishing better relations with the media is a common goal for the statistical offices, not only to ensure a better interpretation of the data but also to establish networks for regular and efficient exchanges, thus reaching other audiences more effectively. Each professional, statisticians on the one hand and journalists on the other, must stay within their respective roles. However, both must contribute to building a profitable and mutual understanding on key statistical issues: how statistics are produced and how they can be best used in the public debate. An objective and professional analysis of official statistics by journalists, sensitized to the intrinsic constraints and qualities of the statistical production, may bring a new light for other users on what statistics can bring to the public debate. This may in turn have an impact on the level of trust and confidence in the statistical office.

([28]) United Nations Economic Commission for Europe (UNECE): *Making Data Meaningful — Part 3: A guide to communicating with the media*, Geneva, Switzerland, 2011

Box 2.26: Communication for statistics (C4S): a training course developed under MEDSTAT IV

In 2018-19, MEDSTAT IV* developed the C4S (Communication for statistics) training course together with the statistical offices of the European Neighbourhood South countries. The course resulted in the implementation of national training sessions in all the countries participating (except Lebanon). These courses were very diverse in their format and content, but all converged to improving the relation between journalists and the statistical institutions. The C4S course has been replicated and is now a regular training session in some of the ENP-South countries.

Source: 'The C4S training for trainers course from the MEDSTAT IV project: description and initial lessons', presented at the 16th Conference of IAOS (2018)

(*)*MEDSTAT* IV was an EU-funded project to support the improvement of statistics in the countries of the European Neighbourhood South. It covered several topics, including visibility, under which the C4S training course was prepared and implemented.

Visibility of statistics

In our world of communication and information, official statistics are becoming less visible than before. On the social media in particular, they are in daily competition with huge flows of information, among which the consumer does not always make a distinction between what is of quality and what is not, what is the result of professional and objective work and what is not. The risk of 'fake news' is permanent and unchecked, and partisan information constitutes the bulk of the day-to-day news. For statistics, this translates into misleading or simply incorrect interpretations/presentations of the data. Official statistics are not particularly well armed against the expanding number of competitors in this new and rapidly changing environment: the freshness of the data is difficult to reach (particularly for macro aggregates), staff of the statistical organisations does not entirely master new communication and dissemination tools, users of statistics are often difficult to satisfy, and resources needed to do better are scarce or lacking([29]). The defence of official data against subjective interpretations is not always organised and "rectifications" may come too late or through inaudible channels. There is a risk for official statistics to be greatly affected by this new information era. It is crucial to build a strong relation with the users through promoting the use of statistics and by increasing statistical literacy.

([29]) Baldacci, E. and Pelagalli, F.: *Communication of statistics in post-truth society: the good, the bad and the ugly*, Eurostat Statistical Working Papers (2017)

Box 2.27: Promotion of the use of statistics – Finland

The scope of promotion of the use of statistics extends to improvement of the usability of statistical information and the product and service selection based on it, and widening of public knowledge about them, as well as elevation of skills in statistical literacy and in the use of statistics.

The aim in promoting the use of statistics is to ensure wide and efficient exploitation of statistics in society. To attain this, statistics must be easily available and usable. The availability of statistics is improved by general and product-specific or statistics-specific communication and marketing and by making products and services easy to find and access. The usability of statistics is enhanced by making statistical products and services clear, illustrative and suitable for user needs. The use of statistics is also fostered by the provision of guidance and training in their use and reading.

There is a common understanding among the statisticians that the visibility of their work must be improved as to be in a position to fight and survive.

Even when data is available and accessible, it may not be visible enough to prospective users for them to take advantage of this information in their work.

Source: Statistics Finland: Quality Guidelines for Official Statistics, 2nd Revised Edition (2007)

Communication strategy

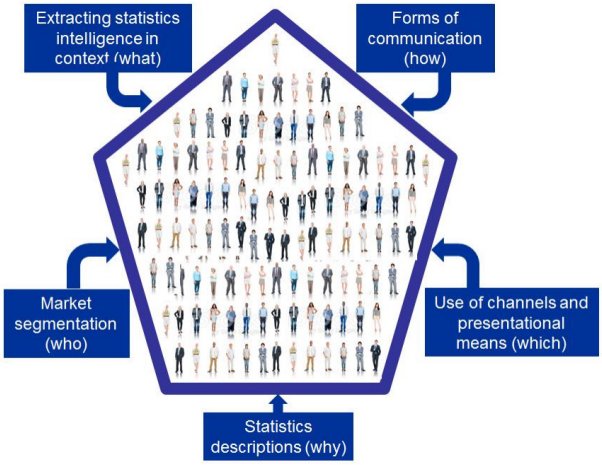
As illustrated in the sections above, efficient communication is an important issue for the future of official statistics in an environment where mass information is available daily, thus increasing the competition that official statistics face with a multitude of other sources of information. However, statistical work is complex and difficult to explain in a concise way. The results of large statistical operations and aggregations may take long before becoming available. The correction of false interpretations may also be the result of a complex process, difficult to explain in a way that is comprehensible to all. In addition, statisticians are not "natural" communicators. These are some of the main "comparative disadvantages" of official statistics vis-à-vis its competitors. "***Communicating statistics is therefore a strategic asset as an integrated part of the functional independence of producing statistics. Within the same vein, communicating statistics is a fundamental and mandatory obligation contributing to national and international agents' transparency and accountability objectives.***"([30])

Communication must be considered at different and interrelated levels: as an internal objective within the statistical organisations (to share knowledge and create a common culture), as an approach to the relations with users (considering the customer as a central element of the statistical work) and as a collaborative process regionally and internationally.

Building a communication strategy is thus a challenge that each statistical organisation should address. This goes first through the creation of a communication function within the organisation. This should follow a new conceptual approach "as moving from a traditional "pull" concept, where statistics is released in databases for public use, to a new "push" concept. This new push concept relates to a new function, whereby the statisticians (a) segregate and provide tailored statistics – what – to (b) different users' groups – who – by (c) facilitating the understanding – why – and (d) simplifying the integration of statistics within workflows and (digital) media – which – and (e) offer statistics descriptions using common language and methodological advice – how." These 5 elements of building the communication strategy are illustrated in the graph below.

([30]) Nymand-Andersen, P.: Preparing a statistics communication strategy, Conference of European Statisticians (CES), Workshop on Statistical Data Dissemination and Communication, Geneva, Switzerland (2017)

Box 2.28: Strategic communication framework for statistical institutions



Now more than ever, timely and relevant data and stories produced by statistical organizations are essential to healthy democratic societies since they remain the only independent, impartial, trusted and reliable sources of official statistics. For official statistics to be beneficial to society, policy debate and decision making, they must be known, understood, communicated and used

Communicating official statistics is more than writing press releases or answering user questions and requests. Statistical authorities need a modern, proactive communication strategy with clearly defined key messages, and must use different channels to reach various target audiences.

A strategic communication function can guide the development and implementation of a communication strategy. This has particular relevance for the world of official statistics, where communication and dissemination have traditionally focused on expert users. With the changing environment, statistical organizations must learn to communicate more effectively and directly with citizens and improve statistical literacy across all audiences.

A productive, professional communication function can help position the statistical organization to succeed in this highly competitive environment. Communication professionals can work in partnership with the statistical organization's leadership board and staff to develop a communication strategy that supports the statistical organization's mission, demonstrates the value of official statistics and enhances the competitive advantage offered by the statistical organization.

Source: UNECE: Strategic Communication Framework for Statistical Institutions (2021)

In this new competition around information, official statistics must adapt their former practices and methods. They have a lot of positive arguments to push forward that may sensitize users to the value of official statistics. Some of these arguments are developed in the box below.

Box 2.29: The value of official statistics

Official statistics help us understand who we are, have been and are becoming. Official statistics tell the stories of our countries – on population, health, crime and the economy. Over time, they weave a compelling narrative that charts the pace and nature of change in society. Better official statistics make for better decisions, and thus better outcomes. Statistics constitute the indispensable evidence base for high quality decisions – for public policy, service delivery, for companies taking commercial decisions and for people deciding about their everyday lives.

Good official data support trust in government and other institutions. The evidence is that when government decisions are made transparently and on the basis of sound official statistics, citizens are more likely to trust the political process. Official statistics give the basis for holding public and corporate bodies to account. Official statistics help promote equality. Access to information is a democratic and constitutional right. An open and transparent system of public data can help empower citizens across all of society. Official statistics are not the only source of information. On the contrary, the danger is of drowning in data. But official statistics have a number of key and sometimes unique advantages, based on the United Nations Fundamental Principles of Official Statistics, which make them indispensable:

- Official statistics are trusted because they are impartial: Good official data are produced free from political or commercial influence. Those who compile the statistics have no vested interests and are bound by a strict professional duty of impartiality.
- Official statistics are produced to recognized standards: Official statistics are based on open methodologies and produced to internationally recognized standards, and are thus internationally comparable. They are produced transparently so that users can assess their accuracy and reliability.
- Official statistics are firmly based on evidence: They are generally based on survey and/or administrative data sources which are larger in scale than most non-official statistics. They are conducted and resourced according to national need rather than commercial expediency. A global network of experts develops official statistics Statisticians have a strong network to share and develop methods and practices internationally. We profit from countries' best experts coming together to provide faster and better statistics on traditional as well as new areas – human capital, household services, climate change, globalization and many more.

The benefits of official statistics vastly outweigh their production costs:

- Official statistics are cheap: In the United States, the production of government data is estimated to cost three cents per person per day. In Australia, the costs represent around 0.03 per cent of the overall size of the economy. Such costs are typical.

They are an efficient use of resources: Official statistics represent a reusable public good and their use does not reduce the amount of information available to others. On the contrary, the "network effect" of their being available to all potential users increases their value and benefit.

Benefits of official statistics are of an order of magnitude higher than their cost: The time and attention given by fiscal and monetary authorities around the world attests to the importance of the information official statistics convey. A study in New Zealand estimates that every dollar invested in the census generates a net benefit of five dollars. Benefits of a similar multiple were demonstrated for the 2011 Census of Population in the United Kingdom.

Source: United Nations Economic Commission for Europe (UNECE): Recommendations for promoting, measuring and communicating the value of official statistics (2018)

B.2.3. National Statistics Systems: who does what

B.2.3.1. USERS OF OFFICIAL STATISTICS

Statistical data exists to answer the questions of decision-makers, whether public or private, national or international. Users of statistics are therefore important members of National Statistics Systems.

Box 2.30: Users of official statistics

Five groups of users of official statistics can generally be identified:

- **government**: political decision-makers and officials of central government, local authorities and supranational bodies;
- **general public**: press and citizens;
- **business**: enterprises, business and employers' representatives and trade unions;
- **other countries and international organisations**: including trade partners and development partners
- **other users**: research centres and non-governmental organisations, whether national and international.

Statistical data are often further analysed following publication, by journalists, researchers, professional analysts and others. The use of official statistics for studying effects of government policies and other issues in society adds value to statistics. Widespread use and analysis of official statistics also serves to verify the quality of the statistics and to raise the authority of the official statistics if the quality is perceived as good.

The core use of official statistics is in preparation, public discussion, implementation and evaluation of government policies. Therefore, the largest users of official statistics are, as a rule, government agencies and policy-makers.

As well as being intensive users of general economic, demographic and other data, business users can demand detailed sector information. As data providers, businesses may have apprehensions about the confidentiality of the data they furnish, in particular whether competitors can deduce facts about their business from published data. In addition, businesses might be concerned about the workload of providing data.

Statistics can be used to analyse the outcomes of different policies that are pursued in comparable countries and regions, provided that the statistics have the same definitions and similar coverage. Consequently, the closer countries work together, for example in an economic union, the greater is the demand for **comparable harmonised data**. As a result, the EU has often taken the lead in international efforts to harmonise statistical concepts and methodologies and as a rule EU Member States' statistics are more directly comparable than are data from other developed countries. The role of regional and international organisations in statistics is further explored in section B.2.4.

Cooperation partners are key users of statistics, both in allocating funds and in evaluating progress of recipients of funds towards development goals. In low income developing countries, the statistics user community can be small and there may be few skilled analysts. In this situation, the cooperation partners may become the primary users of statistics, even if they are aware of and guard against this possibility. Because cooperation partners and international agencies need to make cross-country comparisons in order to evaluate the effectiveness of their policies, they are often supporters of regional harmonisation of data, so that it becomes regionally comparable.

B.2.3.2. THE ORGANISATION OF A NATIONAL STATISTICS SYSTEMS

The term 'National Statistics System' (NSS) refers collectively to a country's statistics producers, i.e. the National Statistical Offices (NSI) and other producers of official statistics. Mostly, the NSI is at the heart of the statistical system (but, for instance, USA is an exception). The structure of a NSS is generally built on national administrative or legal traditions. The statistical system is normally defined by a Statistical Law, which in particular states the main principle of the professional independence of the NSI. The Statistical Law also defines the obligations (e.g. relating to confidentiality) and rights (e.g. to influence and access administrative data registers) of the NSI. There is no 'right way' to organise an NSS; it is always dependent on traditions and organisation of the national administration.

Three structural elements describe how an NSS is organised:

Functional centralisation: The extent to which the whole process of production and dissemination of official statistics is managed directly by the NSI. In a more functionally centralised system, the NSI and the Central Bank are together responsible for most or all statistical publications and a large proportion of surveys and administrative data collection. In a less functionally centralised system, line ministries such as health and education ministries publish their own statistics and the NSI may have a restricted role in carrying out surveys.

Geographical centralisation: The extent to which statistical functions carried out throughout a country's territory are controlled by the central NSI. In large or federal countries, the NSI may have a federal structure. In particular, data collection may be carried out by state statistical institutions, so that the NSI must maintain consistent standards and methodologies for data collection across all states. With extreme geographic decentralisation, data collection units may be part of state / provincial administrations with no direct links to the NSI.

System coordination: The NSS may be coordinated through a National Council for Statistics which has the responsibility for coordinating statistical activities and methodologies and in which the main producers and users are represented. Such a council may have effective coordinating responsibilities, notably responsibility for authorising surveys, or else may be purely advisory. Alternatively, the NSI may itself be legally responsible for prioritising and coordinating activities and methodologies, in which case it would normally be answerable directly to national authorities. The organisation of the NSS varies between countries. However, the main principle of professional independence of the NSI should always be maintained.

Coordination of statistics activities is very important: without it, different government bodies can organise multiple data collections and produce competing statistics sources, none of which would be credible. Common methodologies are required to achieve coherence of results between different statistical series through the use of common classifications, concepts and methods. Agreed methodologies are also required to meet standards agreed with international organisations. The more an NSS is functionally decentralised, the more system co-ordination becomes important.

As well as providing a framework for formalising co-ordination between data producers, a National Council for Statistics can also be an essential place for dialogue between statistics producers and users. The Council sometimes has an additional role of promotion of statistics and may be requested to give its opinion on issues such as statistical programmes and the legal framework for statistical activity. Alternatively, where there is no Council, a consultative committee can be used for dialogue with statistics users.

The establishment of the 'High-Level Group for the Modernisation of Official Statistics' (HLG-MOS) has driven a substantial push forwards towards the modernisation and harmonisation of statistical procedures and methods and efficient organisation of statistical systems and processes. The HLG-MOS involves key actors such as Eurostat, the OECD and UNECE, as well as a large number of national statistical organisations. The HLG-MOS oversees four collaborative Modernisation Groups, covering respectively: Supporting Standards; Sharing Tools; Capabilities and Communication; and the Blue Skies Thinking Network.

The goal of the 'Standards' group is to find ways how to develop, enhance, integrate, promote, support and facilitate implementation of the range of standards needed for statistical modernisation. It has developed several inter-related tools that define how statisticians all over the world envisage their work and the collaboration among them and with partners in the statistical system. The group has operational responsibility for the maintenance and development of the Generic Activity Model for Statistical Organizations (GAMSO), Generic Statistical Business Process Model (GSBPM), and the Generic Statistical Information Model (GSIM), and the documentation of the Common Statistical Production Architecture (CSPA):

- The **Generic Statistical Business Process Model (GSBPM)** describes the core business processes undertaken by statistical organisations to produce statistical outputs. It is currently used by more than 50 statistical organisations worldwide.
- The **Generic Activity Model for Statistical Organisations (GAMSO)** extends and complements the GSBPM by describing overarching activities and processes to support the production of official statistical production.
- The **Generic Statistical Information Model (GSIM)** describes the core pieces of information needed by statistical organisations to produce statistical outputs.
- The **Common Statistical Production Architecture (CSPA)** helps statistical organisations create interoperable tools to share within and between them.

To find out more…

- Committee for the Coordination of Statistical Activities (CCSA) (website)
- High-Level Group for the Modernisation of Official Statistics (HLG-MOS), including the Generic Statistical Business Process Model (GSBPM); the Generic Activity Model for Statistical Organisations (GAMSO); the Generic Statistical Information Model (GSIM); and the Common Statistical Production Architecture (CSPA) (websites)
- About the various traditional ways in which NSSs are organised, see 'Models of Statistical Systems' by Roger Edmunds (2005).

B.2.3.3. STATISTICAL DATA PRODUCERS

B.2.3.3.1. The National Statistical Institute

The National Statistical Institute (NSI) is the main body of the NSS, the core producer of official statistics. Its responsibilities may vary, as explored in section B.2.3.2.

The NSI can have the status of a ministerial department or be an autonomous government body with its own budget. The regulatory authority of an NSI also varies from one country to another: Presidency, Prime Minister, a Minister in charge of the economy, finance or planning or a Parliamentary Committee. In some countries, the NSI is part of a ministerial department and is not directly responsible to a Minister. The statute of the NSI and its administrative attachment influence its autonomy vis-à-vis the political power and its authority within the NSS. NSIs can be organised by function, by statistical subject or a mixture of the two. Whatever the legal and administrative structure for an NSI, the important elements for the effective functioning of a NSI are:

- guarantees of professional independence
- assured financial support
- a clear public mandate from government
- operational flexibility as to how it meets that mandate

A wide range of developing country NSI structures exists. Francophone developing countries generally reflect the structure of the French NSI, INSEE. Anglophone developing countries have varying organisational structures that mostly do not replicate current or historical British practice.

National Statistical Institutes may and arguably should also play a coordinating role for the NSS and usually act as representatives of the NSS in international meetings. However, representation in international meetings depends on the structure of the NSS. When other official bodies are responsible for certain statistics they may be the national representative in such meetings, e.g. the Ministry for Internal Affairs for migration and asylum statistics or the Customs Service for classification of external trade products.

A primary group of challenges facing NSIs in many transition and developing countries concern their **financing**. Financial problems may consist of:

- **Insufficient** budgets,
- **Late** authorisation or release of funds; or
- Lack of **multi-year funding** coupled with **unpredictable** annual budgets.

Good practice in **statistical governance** is of strategic importance. If an NSI forms part of a government ministry and does not have direct responsibility at ministerial level, it is unlikely that it will be sufficiently independent to publish data without political review or that an appropriate policy-level dialogue can develop.

Operational flexibility covers the ability of the NSI to hire appropriately qualified staff at reasonable salaries, set its own internal structure (hence have the ability to restructure) and not be overly constrained to use government common resources, such as printing facilities, where their use would prevent the NSI from meeting its statistical objectives.

These issues are explored in greater detail in chapter C.5.

To find out more…

About the organisation of NSIs in developed and developing countries, visit the websites of the national statistical offices and other organisations producing statistics and study their organisation charts. Some examples:

France: Institut national de la statistique et des études économiques (Insee) organisation chart

United Kingdom: UK Statistics Authority organisation chart

USA: U.S. Census Bureau organisation chart

Botswana: Statistics Botswana - Directorates

Mozambique: Instituto Nacional de Estatística - organisation

The United Nations Statistics Division (UNSD) maintains a complete overview over National Statistical Offices Websites and their profiles.

About how an NSI is organised, see: Handbook on Management and Organization of National Statistical Systems, United Nations Statistical Division (2021)

B.2.3.3.2. Other producers of official statistics

The organisation of the National Statistical System governs which statistics are produced by other bodies than the NSI. All producers of official statistics should be covered by the fundamental principles and statistical codes of practice in the same way as NSIs. Their production of official statistics is normally included in the national work programme for official statistics.

Central banks are responsible for overseeing the financial and banking system. Thus, they are generally responsible for compiling monetary and financial statistics. In some countries, the central bank is also responsible for the balance of payments statistics, as the primary source for this is the Central banks' report on financial transactions with abroad. In addition, in some countries, the national accounts are published by the central bank. The central bank, together with the finance ministry, is the contact point and dialogue partner for the International Monetary Fund.

Line ministries such as agriculture, health, education, customs or social security may have statistical services. The justification for producing statistics in these ministries is that they have in-depth knowledge of the field and of any specific issues or problems which need to be considered. They also have a close contact with the actors in the area. Thus, they are in prime position to validate and assure the quality of data. In particular, data from administrative sources, such as hospital data, are usually collected by the line ministry, but may be processed and published either by them or by the NSI. Whatever way the tasks are assigned to institutions, the line ministry and the NSI need to coordinate methodologies and classifications so that the resulting data is coherent with statistics from other sources such as health surveys.

Surveys that are funded by external assistance and are **organised independently of national statistics** operations constitute a further group of statistics production. This type of action is particularly prevalent in developing country health statistics where there is urgent need of data but little national capacity to collect it. Such surveys may be executed by e.g. central banks, line ministries or other public or private organisations.

B.2.4. The role of international and regional organisations with statistical activities

B.2.4.1. INTERNATIONAL ORGANISATIONS

B.2.4.1.1. Overview

Generally, international organisations that undertake statistical activities carry out the following tasks:

- Development and agreement on international standards for statistical activities;
- Compilation and dissemination of globally comparable statistical information;
- Support for countries' efforts to strengthen their national statistical systems through technical and financial means;
- Coordination of international statistics-related activities.

The United Nations (UN) acts through the United Nations Statistics Division (UNSD), i.e. a part of the Department of Social and Economic Affairs, as a coordinator of the global statistical system and a repository of certain international statistical data. Furthermore, certain UN specialised agencies perform statistical activities, notably compiling globally comparable data and working in their respective fields of competence on methodological improvement.

The Partnership in Statistics for Development in the 21st Century (PARIS21) aims at developing a culture of evidence-based policy making which seeks to improve governance and government effectiveness in reducing poverty and achieving the Millennium Development Goals (MDG). PARIS21 focuses on promoting high-quality statistics and making the data meaningful by informing development policy decisions and managing their implementation. The consortium's role is to foster more effective dialogue among those who produce development statistics and those who use them. A key working area is to support developing countries in designing and successfully implementing a National Strategy for the Development of Statistics (NSDS).

Based upon a decade of experience, and building upon this success, the NSDS guidelines have been revisited in order to enhance and adapt the tool based on assessments made and the views of users and producers within the changing development context. On 2 April 2014, the new NSDS guidelines were officially launched at the PARIS21 Annual Meetings, marking the beginning of the next chapter in the NSDS story.

These new guidelines reflect several innovations that should broaden their scope and usefulness, including:

- A dedicated website that allows for the collection of suggestions and examples of good practices on an on-going basis and includes links to documents produced by national statistical offices and international organisations
- Translation into French, with plans in place for translation into Spanish
- Restructuring into steps that are required when designing an NSDS (sequenced steps) and those that are also part of the regular statistical activities of a country (permanent steps); this supports the Guidelines dual nature as both a process and a product
- Specific sections on key areas, such as implementation, fragile and small states, sectoral statistics, infra-national strategies, regional strategies, gender statistics and open data

Other global organisations that have significant statistical methodology or coordinating roles are the International Monetary Fund (IMF), the World Bank and the Organisation for Economic Co-operation and Development (OECD).

Box 2.30 illustrates the development cooperation roles of certain UN agencies, other international and regional organizations, involved in support for statistical capacity building, also showing selected publications and databases. In addition to that, PARIS21 publishes the 'Partner Report on Support to Statistics', in order to strengthen the partnership of statistical actors.

The coordination role of international organisations means that they are able to introduce statistical initiatives on a regional or a global scale. Also at national level, international organisations sometimes take the lead among the donors in coordinating statistics interventions.

Box 2.31: Activities of international organisations in statistical cooperation

Organisation	Main statistics related activities
United Nations Economic Commission for Africa (UNECA), African Centre for Statistics (ACS) and the Statistical Commission for Africa (StatCom – Africa)	• Co-ordination of statistical activities in the related region • Technical assistance for member states
United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Statistics Division	
United Nations Economic Commission for Europe (UNECE), Statistics Division	
United Nations Economic Commission for Latin America and the Caribbean (UNECLAC), Division for Statistics	
United Nations. Economic and Social Commission for Western Asia (UNESCWA), Statistics Division	
United Nations Conference on trade and Development (UNCTAD), UNCTADSTAT	• Reference manuals on statistical standards, concepts and guidelines on international trade, infrastructure for development, trade efficiency, globalization and related areas; • Develop and maintain the SDG Trade Monitor • Together with UN Women and ILO, develop the policy brief 'Gender and Trade: Assessing the Impact of Trade Agreements on Gender Equality' • Development, training in the WITS (World Integrated Trade Solution) software, bringing together statistics and other trade information; • Development, maintenance, training in the ASYCUDA (Automated System for Customs Data) software, covering foreign trade procedures and generates trade statistics; • Debt Management Programme (DMFAS), helping governments of developing and transitional economies building their debt management capacity; • Collecting comprehensive and comparable Non-Tariff Measures (NTMs) data in 109 countries
United Nations Development Programme (UNDP)	• Statistics for Human Development Reports; • Support for general statistical capacity development, especially linked to poverty monitoring capacity and capacity to monitor progress towards the SDGs; • Censuses and socio-economic surveys; • Use of indicators in policy formulation; • Raise statistical literacy.
United Nations Population Fund (UNFPA)	• Support to Population and Housing Censuses; • Support to Data for Development: monitoring and evaluating progress towards the SDGs, in particular for population, health and gender aspects.
United Nations International Children's Fund (UNICEF)	• Technical assistance for the Multiple Indicator Cluster Surveys (MICS) household survey programme to monitor the situation of children and women. MICS provides statistically sound, internationally comparable estimates of 101 indicators, including 21 MDG indicators. • Support on monitoring & evaluation related issues and data analysis, as well as organisation of training.
World Tourism Organisation (UNWTO-Tourism)	• Development of national Systems of Tourism Statistics (STS) following the International Recommendations for Tourism Statistics 2008 (IRTS 2008); • Design of the required guidance, initiatives and tools for the implementation of STS in countries; • Dissemination and promotion of the Tourism Satellite Account (TSA) conceptual background for economic analysis, in line with the TSA Recommended Methodological Framework 2008 (TSA: RMF 2008); • Launched the initiative Towards a Statistical Framework for Measuring the Sustainability of Tourism (MST).

Box 2.31: Activities of international organisations in statistical cooperation

Organisation	Main statistics related activities
International Labour Organisation (ILO), Department of Statistics	• Compiling and producing labour statistics, which are disseminated through ILOSTAT; • Setting international standards for labour statistics through the International Conference of Labour Statisticians (ICLS); • Providing technical cooperation, assistance and training in labour statistics; • Support policy development and implementation within the "Decent Work" agenda.
United Nations' Food and Agriculture Organisation (FAO)	Technical assistance in agricultural statistics projects in developing countries: • Agricultural censuses; • Systems of agricultural statistics and institutional strengthening; • Agricultural statistics for food safety and early warning information systems; • Statistical data processing and statistical databases; • Training and capacity building.
Organization for Economic Cooperation and Development (OECD)	• Coordination of statistical activities both within the Organisation and with other international agencies; • Provision of essential methodological guidelines; • The Better Life Initiative, measuring well-being and progress, including the How's Life? report and the Better Life Index; • The Gender Data Portal includes selected indicators on gender inequalities in education, employment, entrepreneurship, governance, health and development.
United Nations Educational, Scientific and Cultural Organisation (UNESCO), and its Institute for Statistics (UIS)	Assistance in statistical capacity development on education, science and technology, culture and communication, including: • Responsibility for SDG 4 indicators on education and literacy; • Improving the collection, quality and use of education data for policy-making purposes; • Regional workshops on data collection, concerning statistical and policy-making issues in education and in science and technology.
World Health Organisation (WHO)	• Responsibility for SDG 3 indicators on health; • Support the strengthening of national health information systems; • Operates the Global Health Observatory (GHO), providing health data for SDG 3; • Technical assistance for data collection and analysis of health statistics; • Develops concepts, guidelines, classifications and carries out training programmes, including workshops and seminars.
World Bank	• Support for statistical capacity development in developing countries, including financial assistance, technical assistance and advisory services; • Assist countries in implementing specific household survey programs, such as the Living Standards Measurement Study (LSMS), which provide data on poverty in developing countries, as well as Household and Population Censuses.
World Trade Organisation (WTO)	• Cooperation activities in statistics primarily directed to government officials, for trade negotiation; • Plays an important role in monitoring progress in attaining the trade-specific targets in the Sustainable Development Goals (SDGs); • Support activities for primary data production and compilation.
International Monetary Fund (IMF)	• Technical assistance for statistical capacity development in macroeconomics, monetary and financial statistics, balance of payments, foreign debt, government finance statistics; national accounts and price statistics; financial soundness indicators; • Support to countries to develop their statistical systems using frameworks, such as the Special Data Dissemination Standard (SDDS), the Enhanced General Data Dissemination System (e-GDDS) and the Data Quality Assessment Framework (DQAF); • Offers courses, workshops, and seminars in Washington DC and through a network of Regional Training Centers (RTCs) and Regional Technical Assistance Centers (RTACs).

To find out more…

About the coordinating role of the UNSD see:

- About the UNSD

Introductions to other global institutions with statistics roles include:

- Key impact areas of PARIS21
- World Bank development topics
- IMF statistical activities
- OECD Statistics and Data Directorate
- UNESCO Institute for Statistics (UIS)
- UNICEF data

B.2.4.1.2. Data compilation and dissemination

The United Nations' specialised agencies and other regional and international organisations compile and publish data in their fields of competence based on information they receive from national authorities. As a rule, the international agencies process the data by making adjustments to ensure comparability across the countries, producing estimations for missing data and disseminating the results through public databases and publications. In certain cases, the UN specialised agencies may also make forecasts of economic data.

Some of this data is used for high profile development aid allocation and investment decisions. Data in this category includes the Sustainable Development Goals indicators database and the IMF's International Financial Statistics. Major international data sources are shown in Box 2.32.

Since the data has been processed to achieve comparability, international data publications may not match the national statistics publications of developing countries. There is a continuing debate between developing countries and international organisations, especially those responsible for sections of the SDG indicators database. The issues concern data transmission from developing countries to the international organisations and the transparency of the data processing and estimation methodologies used by the international organisations to harmonise statistics across countries for this database.

Regional integration, especially trade agreements, creates demand for comparable data. Regional organisations such as the EU disseminate regionally harmonised and therefore comparable data from their Member States. The European Statistical System's approach to harmonisation is often seen as a model in other regions.

Box 2.32: What metadata can do for you

Metadata is Information that is needed to correctly use and interpret statistics; they are data that describe other data ('ordinary' data become metadata when they are used in this way). Generally, metadata can be split in structural and reference metadata.

Structural metadata is used to identify, formally describe or retrieve statistical data: Examples are: dimension names, variable names, dictionaries, dataset technical descriptions, dataset locations, keywords for finding data etc. Structural metadata includes e.g. the titles of the variables and dimensions of statistical datasets, as well as the units employed, code lists, data formats, potential value ranges, time dimensions, value ranges of flags, classifications used, etc.

Reference metadata (sometimes called explanatory metadata) describes the contents and the quality of the statistical data from a semantic point of view. It includes explanatory texts on the context of the statistical data, methodologies for data collection and aggregation, as well as quality and dissemination characteristics.

There are several international frameworks for structuring and disseminating reference metadata, including the IMF's Enhanced General Data Dissemination System (e-GDDS) and Special Data Dissemination Standard (SDDS) as well as the Statistical Data and Metadata eXchange (SDMX – metadata standard of the ESS).

Metadata give crucial insight into the data, which is vital for understanding how data can be used, whether they are comparable with other statistics and how reliable analysis based on them is likely to be. For example, metadata should give answers to questions such as:

- What is the source of the data; sample survey, census, administrative records or a combination of several sources? Who is producing the statistics?
- For whom and for what purpose are the data compiled? Which persons or entities are covered by the statistics, and how are the characteristics defined?
- What is the quality of the data? Do they follow international standards and classifications and statistical good practice?
- What is the frequency of the data collection? Is it certain that the data collection will be repeated with regular frequency? Is there a legal basis for the data collection?
- Are the statistics comparable with corresponding statistics in other countries? Are they comparable with other national statistics?

More information on metadata can be found on Eurostat's RAMON metadata server and in the European Statistical System handbook for quality and metadata reports, 2020 edition.

B.2.4.1.3. International statistical concepts and methods

To produce statistics that are comparable across countries, common concepts, classifications and methods need to be defined and implemented. For example, concepts of unemployment, grey economy and foreign population have been defined at international level. Established international nomenclatures and classifications include those covering the classification of economic activities (ISIC), the classification of occupations (ISCO) or the classification of diseases (ICD). Similarly, standard methods for carrying out statistical actions are described in international manuals.

Revisions of methodologies and classifications are carried out periodically through dialogue among statisticians from national and international institutions, often coordinated through the United Nations Statistics Division. The periodic revisions of the System of National Accounts (SNA) are among the most complex of these activities: revisions are dated 1968, 1993 and 2008. The purpose of methodological updates in general is to ensure that the methods and concepts used in the statistics remain relevant to the economic, social or environmental issues being measured. In addition, greater attention is now being drawn during methodological revisions to the needs of developing countries. One such need is to ensure that developing countries with limited statistical resources are able to produce statistics that meet the international standards while avoiding unnecessary complexity. Furthermore, statistical concepts need to be appropriate to the economic and social conditions found in developing countries.

Box 2.33: Selected publications and databases of international organisations

United Nations

- The United Nations Statistics Division (UNSD) Sustainable Development Goals global indicators database covers a wide range of social, economic and environmental indicators for agreed policy goals
- The UNSD Statistical Yearbook includes a 'World and region summary' of key aggregates. Other sections cover population and social questions, national economic activity and international economic relations.
- The UNSD Demographic yearbook contains official statistics on population from national authorities.
- The UNSD external trade database COMTRADE contains data on each country's international trade in goods, per partner country, type of flow and product.
- The United Nations Population Division (UNPD) and its World population prospects database provides worldwide population series, per continent, region and country.
- United Nations Educational, Scientific and Cultural Organisation (UNESCO) Institute for Statistics (UIS) provides data on education, science & technology, culture, communication and literacy, in particular related to SDG 4 on education.
- The Food and Agriculture Organisation (FAO) provides food and agriculture data through its FAOSTAT database and publishes a Statistical yearbook
- The International Labour Organisation (ILO) statistical database ILOSTAT contains statistical information on active population, employment, working conditions, work disputes and household living conditions.
- The World Health Organisation (WHO) provides data on population, health, medical infrastructure, demographic and socioeconomic indicators through its Global Health Observatory and World Health Statistics.

World Bank

- The World Bank provides Open Data on global development with free and easy access to statistics and key development indicators, including the World Development Indicators.

International Monetary Fund

- International financial statistics and balance of payments statistics yearbooks, as drawn up by the International Monetary Fund (IMF).

OECD

- The OECD Data covers a wide range of statistics on developed countries, covering data on agriculture, development (including Official Development Assistance), economy, education (including the PISA study), finance, government, Health, innovation and technology, jobs and society (demography, inequality migration, population by region, social protection).

African Development Bank

- The AfDB's Open Data for Africa platform facilitates access to quality data for managing and monitoring development results in African countries. To strengthen the statistical systems and promote open access to statistics across Africa, Open Data for Africa has been extended to cover all African countries. Data cover a wide range of different topics.

Eurostat

- Eurostat's website provide free access to the Eurobase database, containing a wide range of harmonised data and metadata for European Union and Euro Area aggregates, EU Member States, EFTA countries and candidate countries and potential candidates. The COMEXT database provides detailed data on international trade in goods by the EU Member States and EFTA countries. Metadata are provided through the RAMON metadata server, which also comprises Eurostat's Concepts and Definitions Database (CODED).

A valuable source for information on the quality and availability of data in individual countries is the IMF's Enhanced General Data Dissemination System (e-GDDS) and Special Data Dissemination Standard (SDDS). The GDDS is mainly used by developing countries, whereas SDDS is used mainly by developed countries and transition countries. The objective of the GDDS is to encourage the production and dissemination of complete sets of data with widest coverage, based on international methodologies. The GDDS contains reference metadata such as explanatory texts on the context of the statistical data, methodologies for data collection and aggregation, as well as quality and dissemination characteristics. This information covers both general system information and information on some selected statistical areas. GDDS provide key information on the overall state of countries' statistical systems and their adoption of international methodologies and classifications. This is valuable input for planning and evaluation of technical assistance in statistics. GDDS metadata are also useful to co-ordinate, assess, implement and evaluate statistical programs across agencies and donors. Further details on statistical quality can be found in section C.5.3 and on IMF's Dissemination Standards Bulletin Board (DSBB).

In developing countries, **international classifications and methodologies are not always fully adhered to**, or **earlier versions of the key classifications** are used. This is often because major statistics actions such as **surveys have not been carried out** for some time. Good practice in developing countries is to implement methodological or classification updates when there is a major statistical action, such as periodic survey or census or a change in an index base year. **Surveys therefore need to be sufficiently well planned** to permit the adoption of current international classifications. Achievement of all objectives of a survey requires close **collaboration** of specialized statisticians. Attainment of this level of cooperation is a **senior management task**.

Support in these tasks is provided through the International Household Survey Network (IHSN), which is a partnership of international organizations seeking to improve the availability, quality and use of survey data in developing countries and by the Accelerated Data Program (ADP) which provides technical and financial support to documentation and dissemination of survey data, and helps developing countries to set up national survey databanks.

In the past, classification changes often required significant updates to computer systems, although current systems are more easily changed. In developing countries, adoption of a new index base or classification still usually requires computer systems to be updated.

Internationally agreed concepts and methods express a minimum consensus: where appropriate, some flexibility for countries in meeting the standards is permitted. In particular, classifications such as trade classifications are mandatory at more aggregate levels, with some flexibility permitted at detailed level. However, for direct comparability between country statistics at detailed level, greater harmonisation not only of classifications but of concepts and methods generally is required. Regional partnerships require increased statistical harmonisation in order to prepare, monitor and evaluate the partnerships' common policies.

Due to the EU's high level of economic integration, Europe has become a leading force in international harmonisation of statistics. National accounts represent a good example of successful harmonisation. The global standard for national accounts is the 2008 System of National Accounts (2008 SNA), replacing the previous SNA93 and responding to changes in the economic environment. Based on the 2008 SNA, the European System of Accounts 2010 (ESA 2010) has been developed and provides the legal basis for the EU National Accounts statistics since 2014. ESA 2010 is compatible with the 2008 SNA and provides for more closely defined sources, methods and data transmission.

In May 2008, Eurostat together with the UN Statistical Division organised a high-level conference on national accounts in the context of development cooperation. The conference concluded by endorsing a series of Recommendations which were then passed on to the Inter-secretariat Working Group on National Accounts (ISWGNA) for further consideration before submission to the UN Statistical Commission in February 2009. In the 2nd quarter of 2009, ISWGNA finalised the adoption of the 2008 SNA and used the following selected principles laid down by the Luxembourg Recommendations to underline the proposed implementation strategy of the 2008 SNA:

- strategic planning;
- coordination, monitoring and reporting;
- improving statistical systems.

The ISWGNA principle of improving national statistical systems is undertaken providing support, focusing on the collection and processing of basic source data and in so doing, improving national accounts at the institutional and international level through undertaking the following tasks:

- use of common tools for the production of national accounts;
- preparing manuals and handbooks.

UNSD agreed on the new 2008 SNA in February 2008. It was implemented in 2014. To support developing countries in developing their national accounts in compliance with the 2008 SNA rules and recommendations, Eurostat has developed a practical handbook called "Essential SNA: building the basics". This is a practical handbook mainly aimed at a relatively early stage of implementation of 2008 SNA (Level 0 as defined by the ISWGNA), but countries at higher levels can also find it useful, for the training and re-training of their staff, in particular newly employed ones. Synthetic information on key topics is available on Eurostat's "Statistics explained" web pages, under the title "Building the System of National Accounts".

Regional trade agreements and increased integration in the global economy is increasingly leading to a need for statistical harmonisation in developing countries. In many countries, adherence to international statistical classifications, concepts and methods still needs improvement. However, such harmonisation, which can be integrated with measures to adopt general international statistics standards, places further demands on the often limited statistical capacity.

To find out more…

about countries' use of statistics methodologies and classifications:

The IMF's Enhanced General Data Dissemination System (e-GDDS - mostly developing countries) and Special Data Dissemination Standard (SDDS – mostly developed countries) webpages on the Dissemination Standards Bulletin Board (DSBB) show each country's structured presentation of their statistical metadata – the methodologies, classifications and nomenclatures used covering some selected statistical areas.

A comprehensive directory and explanation of international statistics classifications and nomenclatures is provided by Eurostat's RAMON metadata server.

The International Household Survey Network seeks to improve the availability, quality and use of survey data in developing countries, while the Accelerated Data Program (ADP) provides technical and financial support to documentation and dissemination of survey data.

More info on national accounts implementation:

- System of National Accounts (SNA) (website)
- Luxembourg Recommendations (2008)
- Eurostat: "Essential SNA: building the basics" (2014 edition)
- Eurostat: Building the System of National Accounts (Statistics Explained online article series)

Some key classifications:

- International classification of economic activities (ISIC Rev. 4) (2008)
- International classification of occupations (ISCO) (website)
- International Standard Classification of Education (ISCED 2011) (website)
- International classification of diseases (ICD-11) (website)

B.2.4.2. REGIONAL ORGANISATIONS

Generally, regional organisations comprising developing countries undertake statistical activities in order to:

1. Advise policy makers on interpreting statistics relevant to regional policies;
2. Develop and produce harmonised statistics in fields where comparable statistical data is needed to shape regional policies;
3. Exploit economies of scale by virtue of undertaking joint actions where the respective member states have similar statistical needs.

As a rule, a statistics unit of a regional organisation typically needs to have access to data that originates from both the National Statistics Systems of their member states and from international organisations. These data sources are needed to present, compare and explain policy-relevant statistics that cover both the member states of the region and other countries. Regional statistical units, therefore, require effective communication of current data with their member states' NSIs, as well as access to international statistical databases.

It is very confusing to data users when there are differences between national and international sources for the same statistics. Also when data from various countries are presented in the same table, users expect data to be comparable; they need to be properly informed about the reasons if this is not the case.

Increased data comparability between countries is achieved by adopting consistent concepts, methods and classifications. This process is known as 'statistical harmonisation'. Harmonisation requires agreement on common statistical classifications, methods and systems. This is a long, expensive process that usually requires extensive consultation. Therefore, harmonisation in developing countries is usually focusing on statistics in key policy areas of regional integration. Statistics on international trade in goods and on prices are common priorities, as they are central to regional trade agreements.

The European process of economic and monetary integration favoured the creation of a European Statistical System (ESS). The process of economic and legal harmonisation of statistics in many developing regions is broadly comparable. The challenges of coordination are at least as great as they were in Europe. However, the financial resources and the availability of skilled personnel are much more restricted.

The majority of regional development organisations have some statistical personnel. The functions of the statistics unit can range from being limited to providing advice within the organisation to leading the production of regionally harmonised statistics. The UN regional organisations (e.g. ECLAC, UNECA) also have statistical functions and in some cases organise regional statistical activities.

When the number of professionals in each member state needing a specific training is small, it is often more efficient to organise training sessions at regional level. Examples of this are training in tailored software for specific statistical domains, e.g. international trade or national accounts. Regional organisations can coordinate training programmes to meet the needs of its member states' NSIs. Adoption of common statistical processing software also utilises economies of scale, both in software development, introduction, maintenance and training. Various institutional arrangements have been adopted in different regions for statistics-related training. This issue is considered further in section C.8.6.

Box 2.34: Example of a regional organisations with a statistical component: the West African Economic and Monetary Union (UEMOA)

The West African Economic and Monetary Union (UEMOA) provides an example of the statistical functions of a regional organisation. Eight States of West Africa, which already shared a common currency, decided in 1994 to increase their economic integration by signing a Treaty creating the UEMOA. The resulting Treaty provides for a multilateral monitoring of eight statistical indicators in support of policy convergence. The following four statistical indicators rank first:

- budget surplus / deficit as % of nominal GDP;
- annual inflation rate;
- public debt as % of the nominal GDP;
- arrears of annual payments.

The statistical data must be comparable across all eight Member States. The UEMOA Commission supports its Member States in harmonising the statistical data used for producing these indicators. It has benefited from EU regional integration support programmes.

UEMOA is financing an enhancement of the regional statistical system. This programme aims to (i) improve, harmonise and modernise regional statistical production; (ii) to implement and operationalize the institutional arrangements for follow-up in each domain; (iii) to reinforce the institutional and technical capacities of the UEMOA Commission in the field of statistics. The actions are be implemented in the framework of this horizontal statistical programme, organised on 4 axes:

1. Reinforcement of policy convergences;
2. Poverty and social cohesion (follow-up of regional PRSP and MDG's)
3. Common market establishment;
4. Institutional support;

Concrete activities include: the adoption of a Harmonised Consumption Price Index (HCPI); publication of a regional consumption price index in the form of monthly and biannual notes; production and publication of biannual reports on the implementation of the multilateral monitoring system; adoption of methodologies for calculating the Gross Domestic Product (GDP); creation of a data base on competitiveness; harmonisation of sectoral, social and environmental statistics; creation of a regional business register; and promotion of gender statistics and governance. Since 2015, the Sub-Saharian African Observatory for Economy and Statistics (AFRISTAT) together with the UEMOA Commission has supported the UEMOA Regional Statistical System (RSS) and the NSOs of its member states in the implementation of the Regional Statistical Programme (PSR-UEMOA) 2015-2020, with a special emphasis on a general improvement of the statistics and in particular the national accounts.

The UEMOA Regional Statistical Committee (Comité Régional de la Statistique (CRS)), set up by the Council of Ministers in 2013, plays a central role in the plays a central role in the design and monitoring of the statistical programmes of UEMOA.

Source: UEMOA website – 7th meeting of the Regional Statistical Committee, 15-17 July 2019 (in French)

Box 2.35: Selected regional organisations with statistical activities

Africa

AfDB	African Development Bank
AFRISTAT	Economic and Statistical Observatory of Sub-Saharan Africa
AU	African Union
BCEAO	Central Bank of West African States
BEAC	Banque des États de l'Afrique Centrale
CEMAC	Communauté économique et monétaire de l'Afrique centrale
COMESA	Common Market for Eastern and Southern Africa
ECOWAS	Economic Community of West African States
SADC	Southern African Development Community
UEMOA	Union économique et monétaire Ouest Africaine

Americas

IADB	Inter-American Development Bank
CAN	Comunidad Andina de Naciones
MERCOSUR	Mercado Común del Sur
SIECA	Secretaría de Integración Económica Centroamericana
CARICOM	Caribbean Community and Common Market

Asia

ADB	Asian Development Bank
ASEAN	Association of South East Asian Nations

Europe

Eurostat	Statistical Office of the European Union
ESS	European Statistical System

Euro-Asia

CIS STAT	Interstate Statistical Committee of the Commonwealth of Independent States

Pacific

SPC	Secretariat of the Pacific Community

UN regional organisations not included

B.3 Statistics and indicators in the European Commission development aid process

B.3. Statistics and indicators in the European Commission development aid process

The chapter in brief

This chapter starts with a presentation of the typology of indicators used by the European Commission. This is useful to understand which types of indicators are used to measure different phenomena.

It then presents how indicators and statistics are needed at all stages of the Commission cooperation action, dealing step by step with the subsequent stages of the programming cycle. Programming, identification, formulation, implementation, evaluation. It also deals with the importance of reliable, relevant, timely and accurate data and a sustainable public financial management system for budget support. It mentions the central role of the SDG global monitoring framework and the SDG indicators for defining and mainstreaming national results frameworks, as basis for development programmes and joint programming and implementation.

B.3.1. The role and importance of statistics and indicators in the aid context

Over the last decades, there has been an increased focus on the effectiveness of development aid. (For more details, see chapter B.1.) In this context, the need for reliable statistics has increased strongly, both for monitoring during activities and for evaluation of results after their completion. In this process, the emphasis has shifted strongly from external monitoring of processes and evaluation of impacts by donors to using and strengthening developing countries' own results frameworks and monitoring and evaluation (M&E) systems, developed in line with their own development objectives and policies. Many of these are closely aligned with the global monitoring framework for the SDGs, so as to produce the required data for measuring progress towards the SDGs.

The existence of result-oriented reporting and assessment frameworks in partner countries and strengthened linkages between development strategies and budget processes are central in this process. The national capacity for developing and operating such results frameworks should be placed within the overall context of national capacity development for sustainable outcomes. Conditions should be based on the developing country's own development objectives. Transparent, country-owned results frameworks should be the central tool to assess progress and impact, based on a manageable number of output and outcome indicators drawn from the development objectives and goals of the developing country itself.

This process has been backed by donors as well as partner countries, seeing the need to deliver more and better aid and increasing the effectiveness of aid in terms of impact in priority areas. If full use of the country results framework is not possible, donor(s) should discuss with the country how the national capacity could be strengthened, including any necessary assistance or changes.

The change from conditionality based on external results frameworks to conditionality based on national frameworks linked to the country's own development objectives and policies has led to the emergence of new indicators. The 'traditional' measurements of direct aid input (such as person-days or budget allocated for a specific aid project) and results (such as number of hospital places, number of educated nurses) have been supplemented or sometimes even replaced. The new indicators address the results and overall impact from the beneficiary point of view (e.g. access to basic medical services, decreasing death rates from treatable diseases) using the country's own results measurement systems and in line with the country's own development strategy.

A close monitoring and evaluation (M&E) of activities and projects needs data of good quality. The data must be appropriate for the task: it must be relevant, reliable and available when needed and expected. For evaluating development over time, the data must be comparable over time. For wider benchmarking uses, the data should be comparable between countries and regions. The importance of good data and good indicators goes well beyond efficient monitoring and evaluation. Quality statistics are:

- vital for the development of evidence-based development policies;
- crucial for the priorities contained in national development strategies;
- essential for efficient public administration;
- if trusted by the public, increasing transparency and promoting accountability of the government, which are vital to good governance.

Thus, availability and reliability of relevant statistics and the capacity of countries to produce these are important to the EU's support for good governance, transparency and accountability. (For more information on quality of statistics, see section C.5.3). Assurance of reliability is based on the UN Fundamental Principles of Official Statistics, as well as regional adaptations of these (e.g. the African Charter on Statistics, the Code of Good Practice in Statistics for Latin America and the Caribbean) and others (see section B.2.1 for more details).

B.3.2. Typology of development indicators

The EU and its Member States are committed to the joint programming of development co-operation to address national development objectives. The resulting joint strategy is fully aligned to the partner country's national development plan. It is therefore critical that its result framework has the capacity to provide relevant indicators to define baselines, monitor progress, measure output and assess impact of the national development strategy. The use of carefully selected outcome indicators is crucial for development partners and partner countries to measure progress against the country's own development objectives.

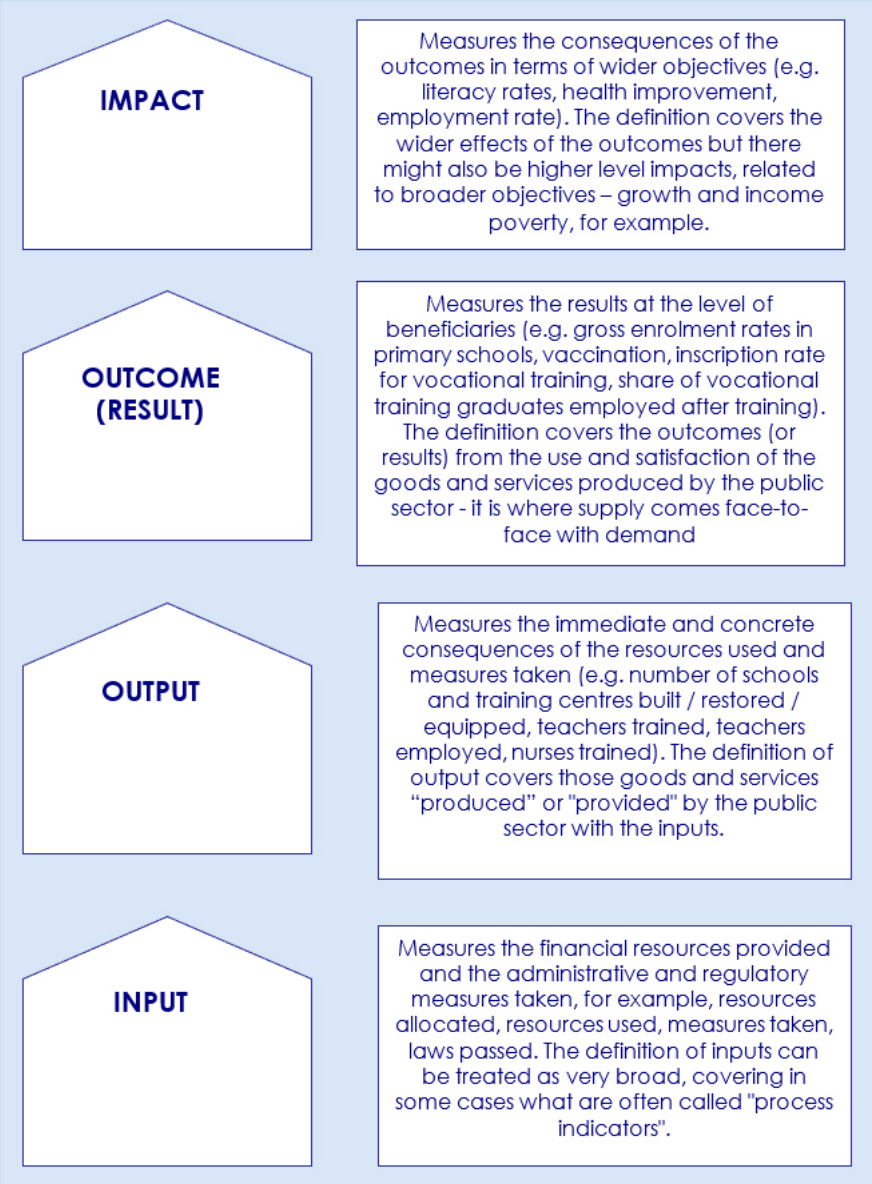
In order to classify an indicator according to what state or event it measures, the European Commission uses the OECD-DAC's typology of indicators. This classifies each indicator as measuring an "input", an "output", an "outcome" or an "impact". Each indicator falls into one and only one of the types.

These types of indicators are all relevant for policy makers and development practitioners. A full diagnosis of progress and weaknesses of a sector (or programme or project, or country) will require a set of indicators that includes all the four different types identified, which are:

- Input Indicators
- Output Indicators
- Outcome Indicators
- Impact Indicators

Box 3.1 presents a visualisation of the main characteristics of the OECD-DAC typology.

Box 3.1: Typology of indicators



Some donors use other definitions or names for the different types of indicators. For example, some donors use the term "outcome" or "result" to refer to what the above typology calls "impact". When entering into dialogue with governments or donors concerning the types of indicators used in the national results frameworks, it is crucial to clarify beforehand the concepts underlying the terminology.

The European Union Results Framework was laid down in the Commission staff working document SWD(2015) 80 final "Launching the EU International Cooperation and Development Results Framework". This aimed at strengthening the capacity of the European Commission to monitor and report results, enhancing accountability, transparency and visibility of EU aid. Following the launch of the 2030 Agenda and the SDGs in 2015 and the new European Consensus on Development in 2017, the EU Results Framework was revised to align it with these key development policy frameworks. The updated Results Framework is described in the Commission staff working document SWD(2018) 444 final "A Revised EU International Cooperation and Development Results Framework in line with the Sustainable Development Goals of the 2030 Agenda for Sustainable Development and the New European Consensus on Development".

The new European Consensus on Development aligned EU development policies with the 2030 Agenda and the SDGs, integrating the previous EU 'Agenda for Change' (2011). It provides a common framework for development cooperation for the EU and its Member States.

The Consensus sets out that the EU and its Member States will integrate the 2030 Agenda and support the use of SDG indicators to measure development results at country level. In particular, SDG indicators can foster and facilitate harmonised reporting of results, including partner countries' results frameworks, thus supporting the efforts of the EU in boosting the statistical capacity of developing countries, including on the production and analysis of data to inform policy and decision-making.

Basing the EU Results Framework on the SDGs facilitates further progress towards a common approach across the EU and its Member States for measuring and communicating the results of development policies and interventions. It also facilitates common approaches for measuring and communicating results in Joint Programming. Moreover, the SDGs provide a better context to articulate EU efforts with those of other actors, including other international donors, thereby enhancing development effectiveness. Given that partner countries are gearing their national systems towards SDG implementation, the use of SDG indicators in the EU Results Framework also contributes to the general development effectiveness objective of making use of data produced by national systems to the greatest extent possible, including in the context of their own development strategies.

Overall, this approach enhances the role of the results framework as an essential element of the architecture contributing to effective implementation and consistent communication of the EU contribution to progress towards the SDGs in partner countries.

The revised EU Results Framework maintains the three-level structure of the first framework, organising it around the 17 SDGs. Level 1 continues to track development progress in partner countries: i.e. the medium/long term development impact achieved in partnership and collaboration with partner governments, donors and other development actors, including the private sector and civil society. Such progress is, by nature, slow and impacts reported at this level are not intended to directly assess the performance of EU international cooperation, but rather give the operational context in which EU external assistance is provided.

Level 2 focuses on development outcomes and outputs to which EU funded interventions contributed to in collaboration with partner governments and other funding providers. It is at this level that results, most relevant for internal decision-making, accountability, communication and lesson learning are aggregated.

Level 3 focuses on policy priority mainstreaming as measured by budgetary commitments directed towards specific priorities (e.g. human development, gender, nutrition). (Indicators on overall organisational performance previously included were not easily understandable and were already regularly reported on; they have therefore been omitted from the revised Results Framework.)

Box 3.2: Typology of indicators by the use made of them

A. Indicators used to describe events at country or regional level and that are useful for policy. They are able to depict the context of a sector and to measure its changes over time. This category includes: the EU Results Framework indicators, the SDGs, the World Bank International Development Association (IDA) 18 Results Managements System, etc.

B. Indicators used to monitor what is happening at programme/project level and to evaluate them. These indicators can usually be found in a logical framework for a programme or project and in budget support programmes. For programmes / projects, these will often be sector specific and may be tailored to the individual action.

C. Indicators used for reporting and accountability of countries and donors with respect to their commitments. These include aid effectiveness indicators. In principle, the SDG indicators could be seen as part of this group, but in practice they cannot be used to hold countries or donors accountable.

To find out more…

- European Consensus on Development (2017)
- European Commission: SWD(2018) 444 final A Revised EU International Cooperation and Development Results Framework in line with the Sustainable Development Goals of the 2030 Agenda for Sustainable Development and the New European Consensus on Development (2018)
- World Bank International Development Association: IDA 18 Results Measurement System (2017-2020); IDA18 Results Measurement System Tier I database
- Independent Evaluation Group / World Bank: Designing a results framework for achieving results: a how-to guide (2012)
- United Nations Development Programme: Evaluation Guidelines (2021)
- OECD-DAC: DAC Network on Development Evaluation; Development co-operation results for the 2030 Agenda (2018); Toolkit for identifying, monitoring and evaluating the value added of triangular co-operation (2018); Typology of indicators - Glossary of key terms in evaluation and results based management (2002)

B.3.3. Indicators and statistics in the European Commission development cycle

B.3.3.1 STATISTICS IN PROGRAMMING

European Commission development policies have undergone substantial update and refocusing in recent years, and will undergo a major shift for the programming period 2021-2027. The new European Consensus on Development, adopted in 2017, aligned EU development policies with the 2030 Agenda for Sustainable Development and the Sustainable Development Goals, while also integrating the 2011 'Agenda for Change'.

With the adaptation of the European Green Deal, the European Union has affirmed its role as a global leader in climate action and towards sustainable societies and economies. The EU will:

- work with Africa to bring climate and environment issues to the centre of the mutual relations.
- set up a Green Agenda for the Western Balkans, mirroring the Green Deal.
- establish environment, energy and climate partnerships with the Eastern Partnership and Southern Neighbourhood.
- build Green Alliances with partner countries and regions in Latin America, the Caribbean, Asia and the Pacific.

Box 3.3: The new European Consensus on Development and reliable data for planning and programming

The new European Consensus on Development from 2017 emphasises the EU and its Member States' common commitment to "working better together". This includes improving effectiveness and impact through greater coordination and coherence. Joint Programming should be promoted and strengthened, while being kept voluntary, flexible, inclusive, and tailored to the country context. It should allow for the replacement of EU and Member States' programming documents with EU Joint Programming documents.

Partner country engagement, appropriation and ownership are essential for this process. Joint Programming should be led by the partner country's development strategy and aligned to the partner country's development priorities. National governments have the primary responsibility for implementing the 2030 Agenda. The EU and its Member States will provide support for comprehensive and inclusive planning in developing countries, rooted in national and sub-national development strategies, programmes and budgets.

Some of the fundamental aims will be to build the capacity of developing countries to implement the 2030 Agenda at local, regional and national levels. The EU and its Member States will support capacity building for nationally owned monitoring frameworks, quality data collection, disaggregation and analysis. The EU and its Member States will support partner countries' capacity to formulate and implement inclusive national sustainable development policies and results frameworks as well as to increase accountability and responsiveness to citizens.

The EU and its Member States will boost the statistical capacity of developing countries, including through strengthened capacity for the production and analysis of data to inform policy and decision-making. This data should be disaggregated where possible by income, gender, age and other factors, and provide information on marginalised, vulnerable and hard-to-reach groups. It will also include investments in stronger statistical institutions at sub-national, national and regional level, and the use of new technologies and data sources. The EU and its Member States will encourage their partner countries to include the voices of marginalised communities in monitoring the SDGs and to promote concrete mechanisms to this end.

The EU and its Member States will integrate the 2030 Agenda and support the use of SDG indicators to measure development results at country level. In particular, SDGs indicators can foster and facilitate a common EU results-oriented approach that favours harmonised results reporting at partner country level, including partner-country-level results frameworks, where they exist.

The EU and its Member States will progressively adapt their reporting systems in the field of development cooperation to be consistent with the 2030 Agenda's follow-up processes and indicators. They will improve the quality and availability of data on their development cooperation activities, across the 2030 Agenda.

Source: The new European Consensus on Development: 'Our World, Our Dignity, Our Future' (2017)

B.3.3.2 GLOBAL EUROPE: NEIGHBOURHOOD, DEVELOPMENT AND INTERNATIONAL COOPERATION INSTRUMENT

The new 'Global Europe: Neighbourhood, Development and International Cooperation Instrument' (NDICI) gives particular priority to the countries most in need, particularly least developed countries, low-income countries, fragile or crisis-struck countries, supporting them to overcome long-term developmental challenges. NDICI – Global Europe will contribute to achieving the international commitments and objectives that the European Union has agreed to, in particular the 2030 Agenda and its Sustainable Development Goals and the Paris Agreement.

NDICI – Global Europe will be the EU's main financing tool for eradicating poverty and promoting sustainable development, prosperity, peace and stability over the programming period 2021-2027. It merges several previous external financing instruments under the EU budget, including the Development Cooperation Instrument, the European Neighbourhood Instrument, the Partnership Instrument, the Instrument for Stability and Peace, the European Instrument for Democracy and Human Rights and the European Fund for Sustainable Development. It unifies grants, blending and guarantees, which will allow the EU to strategically promote public and private investment worldwide in support to sustainable development through the European Fund for Sustainable Development Plus (EFSD+). Investments will be backed by an External Action Guarantee, which will also cover the pre-accession countries. The EU will continue to work towards achieving the target of investing 0.7% of its collective Gross National Income (GNI) in official development assistance (ODA), and 0.2% to the least developed countries (LDC).

NDICI - Global Europe will increase the effectiveness and visibility of the EU's development cooperation actions, strengthen the policy coherence of the EU's development policy with other EU policies and give the EU flexibility to provide a faster response to new crises and challenges. Its place within the EU's Multiannual Financial Framework (MFF) 2021-2027 increases transparency and improves democratic scrutiny through the European Parliament, while also simplifying and modernising procedures and management. The new instrument will also vastly increase EU flexibility to react to changing circumstances and rapidly emerging crises.

NDICI – Global Europe operates through three key pillars:

- The geographic pillar will support and foster dialogue and cooperation with third countries and regions in the Neighbourhood, in Sub-Saharan Africa, in Asia and the Pacific, and in the Americas and the Caribbean; develop special strengthened partnerships and enhanced political cooperation with the European Neighbourhood, founded on cooperation, peace and stability and a shared commitment to the universal values of democracy, rule of law and respect for human rights, and aiming at deep and sustainable democracy and progressive socio-economic integration as well as people-to-people contacts; foster dialogue and cooperation with third countries. Each regional envelope will be adapted to the needs and priorities of the respective countries and region, which will reflect the EU's strategic priorities.
- The broad instrument will remove artificial barriers between previous instruments, reduce administrative burden and streamline the management structure. In line with the close interlinkages between the 17 Sustainable Development Goals, the ambition of the new integrated architecture is that individual actions will not be addressing just one separate issue, but respond to several goals at the same time.
- The thematic pillar will protect, promote and advance democracy and rule of law, including accountability mechanisms, and human rights including gender equality and the protection of human rights defenders; support civil society organisations; further stability and peace and prevent conflict, thereby contributing to the protection of civilians; address other global challenges such as climate change, protection of biodiversity and the environment, as well as migration and forced displacement, health, education, empowering women and children, inclusive growth, decent work, social protection and food security.
- The (non-programmable) rapid-response pillar will allow the EU to rapidly and effectively intervene for conflict prevention and to respond to situations of crisis or instability, including those which may result from migratory flows and forced displacement and hybrid threats. It will help increase partner countries' resilience, including to natural and man-made disasters, linking of humanitarian aid and development action, as well as taking early action to address the EU's foreign policy needs and priorities

NDICI – Global Europe also includes a buffer reserved for emerging challenges and priorities and may raise additional financial resources from the private sector to support financing and investment operations in all its geographical areas, with special attention to least developed countries and countries experiencing fragility and conflict.

NDICI – Global Europe is delivered through direct management by the Commission (centrally and through the EU Delegations), as well as through indirect management by entities such as the EU member States agencies or international organisations or partner countries. Financial instruments will be designed in partnership with the European Investment Bank, Member States' financial institutions or other European and international development financial institutions. The lead services involved in implementing the instrument are DG International Partnerships (DG INTPA), DG Neighbourhood and Enlargement Negotiations (DG NEAR) and the Foreign Policy Instruments (FPI) Department, in cooperation with the European External Actions Service (EEAS) and DG Trade (TRADE) and other line DGs, especially on external dimensions of internal policies like climate, energy, digital and education.

The relevant procedures for this new instrument will be published in the near future. Information on the instrument is provided at DG INTPA's webpage on NDICI – Global Europe [https://ec.europa.eu/international-partnerships/global-europe] and in the Factsheet on NDICI featured on that page. Readers are invited to consult the web pages of DG INTPA, DG NEAR or the EEAS for more information.

Box 3.4: Global Europe: Neighbourhood, Development and International Cooperation Instrument (NDICI) – Performance framework

Target: To support and foster dialogue and cooperation with third countries and regions in the Neighbourhood, in Sub-Saharan Africa, in Asia and the Pacific, and in the Americas and the Caribbean; to develop special strengthened partnerships and enhanced political cooperation with the European Neighbourhood, founded on cooperation, peace and stability and a shared commitment to the universal values of democracy, rule of law and respect for human rights, and aiming at deep and sustainable democracy and progressive socio-economic integration as well as people-to-people contacts.

Indicator	Dimension measured	Type	Source	Data availability
The Rule of Law score in relation to countries benefiting from Union assistance (c)	Guarantees of fundamental rights and values	Impact	https://info.worldbank.org/governance/wgi/Home/Reports	First data in 2022; estimated lag 1 year; annually
Proportion of population below the international poverty line (c)	Poverty eradication	Impact	https://unstats.un.org/sdgs/indicators/database/	First data in 2022; estimated lag 3 years; annually

Target: At global level, to protect, promote and advance democracy, and the rule of law, including accountability mechanisms, and human rights, including gender equality and the protection of human rights defenders, including in the most difficult circumstances and urgent situations, to support civil society organisations, to further stability and peace and prevent conflict, thereby contributing to the protection of civilians, to address other global challenges such as, climate change, protection of biodiversity and the environment, as well as migration and mobility.

Indicator	Dimension measured	Type	Source	Data availability
N. of women of reproductive age, adolescent girls, and children under 5 reached by nutrition programmes with Union support (2)	Human development – nutrition	Output	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
N. of smallholders reached with Union supported interventions aimed to increase their sustainable production, access to markets and/or security of land (2)	Human development	Output	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
N. of 1-year olds fully immunised with Union support (2)	Human development – health	Output	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
N. of individuals with access to improved drinking water source and/or sanitation facilitation with Union support (2)	Human development – health	Result	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
Number of students enrolled in education: (a) primary education (b) secondary education and number of people who have benefitted from institution or workplace-based VET/skills development interventions, supported by the Union (2)	Human development – education	Output	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
N. of victims of human right violations directly benefitting from assistance funded by the Union (2)	Human rights	Output	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
Proportion of Union funded cooperation promoting gender equality and women's empowerment (1)	Gender equality	Input	Commission's internal financial information management system	First data in 2022; estimated lag none; annually
Migrants, refugees and internally displaced people or individuals from host communities protected or assisted with Union support (2)	Migration	Output	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
Number of SMEs applying sustainable consumption and production practices with Union support (2)	Healthy environment and climate change mitigation	Result	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually

Countries and cities with climate change and/or disaster risk reduction strategies with Union support (2)	Healthy environment and climate change mitigation	Result	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
Greenhouse gas emissions avoided (kilo-tonnes of CO2 equivalent) with Union support (2)	Healthy environment and climate change mitigation	Result	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
Area of marine, terrestrial and freshwater ecosystems protected and/or sustainably managed with Union support (2)	Healthy environment and climate change mitigation	Result	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
Renewable energy generation capacity installed (MW) with Union support (2)	Healthy environment and climate change mitigation	Output	Commission's monitoring and reporting systems	First data in 2022; estimated lag 1 year; annually
Leverage of investments and multiplier effect achieved (1)	Inclusive growth, decent jobs and private sector engagement	Output	Commission's internal financial information management system	First data in 2022; estimated lag none; annually
Target: To respond rapidly to: situations of crisis, instability and conflict including those which may result from migratory flows and forced displacement and hybrid threats; resilience challenges, including natural and man-made disasters, and linking of humanitarian aid and development action; as well as the Union foreign policy needs and priorities.				
Indicator	**Dimension measured**	**Type**	**Source**	**Data availability**
Number of individuals directly benefiting from Union supported interventions that specifically aim to support civilian post-conflict, peace building or conflict prevention (2)	Conflict prevention, peace-building and crisis preparedness	Output	Commission's monitoring and reporting systems	First data in June 2022; estimated lag: 6 months; annually
Number of processes related to partner country practices on trade, investment and business, or promoting the external dimension of Union internal policies or Union interest, which have been influenced (2)	Union foreign policy	Result	Commission's monitoring and reporting systems	First data in June 2022; estimated lag: 6 months; annually
Number of Union funded initiatives supporting the implementation of political, economic and social reforms and joint agreements in partner countries (1)	Union foreign policy	Input	Commission's internal financial information management system	First data in June 2022; estimated lag: 6 months; annually

(c) Context indicators
(1) Level 1 indicators in the EU Results Framework
(2) Level 2 indicators in the EU Results Framework

Source: DG International Partnerships: Neighbourhood, Development and International Cooperation Instrument: Performance framework (2021)

Box 3.5: The Global Europe – NDICI: Estimation of baselines and targets

Baselines and targets for Level 1 indicators in the EU Result Framework	The baselines for these indicators are the average values over 2014-2020. Step 1: The monitoring services of the relevant DGs of the Commission provide the available data on performance over the 2014-2020 MFF; Step 2: The Commission's relevant units adjust for changes in budget and priorities
Baselines and targets for Level 2 indicators in the EU Result Framework	Since these indicators measure results achieved since the beginning of the MFF, at the beginning of the MFF nothing has been achieved yet and therefore the baselines are zero. Step 1: The monitoring services of the relevant DGs of the Commission provide the available data on performance over the 2014-2020 MFF; Step 2: The Commission's relevant units adjust for changes in budget and priorities. In some cases, only 3 years of data will be available, meaning that milestones and targets will have to be set with very limited information. Consequently, these milestones and targets will be conservative.
Baselines and targets context indicators	The baselines for these indicators are the values in 2020. Step 1: The monitoring services of the relevant DGs of the Commission use the historical data to project future values using linear interpolation; Step 2: The Commission's relevant units validate. These indicators are context indicators, and the results they measure are in no way attributable to our actions. Consequently, targets will be estimated by using past values to project into the future, assuming past trends will continue in the future. Linear projections will be used unless the data indicates that a nonlinear approach would be more appropriate.

Source: DG International Partnerships: Neighbourhood, Development and International Cooperation Instrument: Performance framework (2021)

B.3.3.3. STATISTICS AND BUDGET SUPPORT

Budget support is an important instrument in EU's comprehensive development policy towards partner countries. EU budget support is not a blank cheque, nor is it provided to every country. "Underlying principles" matter and policy dialogue is a key part of the package.

Moreover, eligibility criteria have to be met before and during the programme and conditions need to be fulfilled before payments are made. This ensures that resources are used for their intended purposes, mitigates risks, and creates incentives for improved performance and results. It also creates incentives for our partner countries to improve their governments systems.

The European Commission only provides budget support to countries that meet the following eligibility conditions:

- A well-defined national or sectoral development or reform policy and strategy is in place;
- A stability-oriented macroeconomic framework is in place;
- A credible and relevant programme to improve public financial management is in place;
- A transparency and oversight of the budget information must be made publicly available.

Budget support is only disbursed when the eligibility criteria and additional agreed conditions on results are met. Compliance with the eligibility criteria and fulfilment of the agreed conditions is crucial to assure the appropriate use of resources, reduce risks and create incentives for improved performance. Where the European Commission notes that progress is insufficient, budget support tranches are withheld until credible reassurances or measures have been established.

The European Commission Communication 'The future approach to EU budget support to third countries' (2011) confirms that EU budget support should continue to be predictable, to emphasise nationally owned development strategies and to use performance related tranches. The Commission remains committed to results-based budget support operations. It will further strengthen progress assessment and monitoring of outcomes, including by using process and output indicators.

This initial framework was later completed by the EU's commitment to the UN 2030 Agenda for Sustainable Development (2015) and the Addis Ababa Action Agenda (2015). The New European Consensus on Development (2017), which implements the 2030 Agenda in the EU, reiterates the importance of a coordinated approach to budget support and insists on the need for a rights-based approach, to make sure no one is left behind.

The EU should continue to apply a dynamic approach to eligibility criteria, focusing on progress in the implementation of credible and relevant reform strategies. The European Commission intends to improve its eligibility criteria and assessment of these as well as the allocation of funds.

Budget support should continue to involve a combination of base tranches linked to eligibility, and performance tranches linked to progress against indicators in addition to eligibility criteria. The indicators should be drawn from the partner country's national or sector development policy and should contain a mix of process, output and outcome indicators. Indicators and targets should be reviewed as part of each annual review, and may be adapted in the light of lessons learned.

Budget support relies on conditionality and policy dialogue, thus baseline information is needed to start the process. As budget support is focused on development results, information to measure the performance of budget support at general and at sector policy level is needed. Relevant and reliable performance and output indicators, based on statistics, are necessary to verify the extent to which variable budget support tranches can be disbursed.

The partner country should have a credible and functioning system for monitoring and evaluation of results. If weaknesses are identified in this system, actions should be agreed to strengthen it. The European Commission pays particular attention to:

- The institutional setup of the monitoring and results evaluation system;
- The existing monitoring and evaluation plan linked to development objectives and key processes;
- Quality, regularity and reliability of data. In particular, this covers official statistics, information systems, indicators and reporting documents;
- Capacity development to support monitoring and evaluation functions.

The European Commission systematically assesses the need for capacity development, in order to enhance the capacity of partner country governments to implement policies and deliver services to final beneficiaries and to promote active engagement of domestic stakeholders. In particular, the European Commission should assess the needs to strengthen the national statistical system and its capacity to provide reliable statistics for required policy formulation, monitoring and performance assessment. The support to capacity development is based on demand, linked to clear outputs, and through harmonised and aligned initiatives.

B.3.3.4. STATISTICS AND IDENTIFICATION

The use of indicators is also crucial for the success of a project or programme identification. Compared to the set of indicators used during programming, the indicators chosen at this stage will tend to present a closer definition of the particularities of a sector.

The choice of the set of indicators will provide measurements of the situation in the sector where the cooperation intervention is to be designed. The main aim of these measurements will be to identify what are the needs, the strengths and weaknesses existing in the sector and will facilitate the choice of activities and targets constituting the project.

In the case of budget support programmes, it is important not to confuse the indicators that will furnish this crucial information on needs, strengths and weaknesses and those that will be used for the disbursement of the variable tranches. Usually the disbursement indicators will be a limited subset of the sector indicators that will focus on a few main issues which are considered crucial to assess the progress of the government towards the achievement of the programme's objectives.

The process for reaching this decision on whether to provide budget support involves:

- assessment of a country's commitment to the fundamental values of human rights, democracy and rule of law. The assessment will be done within the risk management framework (political risk category) during the identification phase and subsequently monitored during the formulation and implementation phases, using the risk framework;
- assessment of eligibility against the four eligibility criteria (well-defined national/sectoral development strategy; stability-oriented macroeconomic framework; credible and relevant programme to improve public financial management; transparency and oversight of the budget). This will be done for all budget support contracts during the identification and formulation phases. It will also be done during implementation, in addition to variable tranche performance.
- assessment of the risks and whether these are likely to be outweighed by the mitigating measures and expected benefits during the identification, formulation and implementation phases.

Decisions on ***how much budget support*** will be based on a broad qualitative assessment of the following needs and performance criteria:

- Financing needs of the partner country, assessed on the basis of its medium term fiscal framework and the national/sector development strategies;
- Commitment of the partner country to allocate national budget resources in line with development strategy and objectives;
- Effectiveness, value for money and impact of the specific added value that budget support will bring in achieving the partner country's policy objectives;
- Track record and absorption capacity of past disbursements, and how effectively agreed objectives were achieved with budget support operations;
- Result orientation in the partner country's development strategy, including a monitoring system.

B.3.3.5. STATISTICS AND FORMULATION / IMPLEMENTATION

The same set of indicators used to support the identification of a project or programme will usually be useful for the formulation phase. However, given the greater knowledge of the field of intervention at this stage, new indicators are often added to the set as new needs for information on specific

issues are defined. This final set of indicators constitutes a project's logical framework and will be used later on for monitoring of project implementation. For budget support programmes, some issues need to be taken into account:

Formulation: All budget support contract Action Fiches should follow the same format, covering the following main sections:

- Rationale, objectives and expected benefits of the budget support programme constitute the key lines of the strategic framework;
- Assessment of country context and budget support eligibility, summarizing the main issues and results of the assessment of the four eligibility criteria;
- Risk Management covers the main issues identified in the risk management framework, focusing on a description of the major risks and mitigating measures;
- Design of the programme covers the implementation issues, including the expected benefits and results, total budget and indicative calendar for disbursements, stakeholders and donor coordination, performance monitoring, criteria for disbursement, complementary measures (in particular for capacity development, evaluation and audit, communication and visibility).

Implementation: Regular monitoring and dialogue are key elements of all budget support operations. Promoting domestic ownership and accountability, strengthening team work within EU Delegations and across all budget support providers, and paying attention to appropriate communication and visibility activities will all be important.

At the end of a budget support programme, a final report needs to be formulated. These final programme reviews will highlight the initial objectives of the programme, progress and results achieved during implementation, as well as lessons learnt. These reviews are not formal evaluations, but aim at providing input for future budget support operations and at improving the communication and visibility of results.

B.3.3.6. STATISTICS AND EVALUATION

Four sets of indicators correspond to four specific stages of the evaluation process:

- Context indicators provide information about the changes in the country under evaluation, the location and the assistance provided.
- Programme indicators detail the resources, implementation, results and if possible the impacts of an ongoing activity.
- Evaluation indicators, when examined together with the evaluation criteria, enable the evaluator to formulate a judgement on the programme's relevance, coherence, efficiency and effectiveness and to support answers to evaluation questions.
- Monitoring indicators are included in the monitoring system of programmes and sometimes used by evaluators to assess the implementation of programmes.

An indicator can belong to several of these indicator sets and be used in a variety of situations. For example, a socio-economic indicator may also be appropriate as a programme impact indicator.

The European Commission country evaluations make use of context indicators. These indicators are often designed to highlight the specificities of a local context, however without enabling the evaluator to make a comparison between countries or get a global and normative view of the country's situation. In certain cases and countries, the emphasis may be put on particular sectors or issues (e.g. poverty analysis, conflict analysis). Context indicators include:

Economic indicators: GDP, growth, debt, balance of payments;

- Social indicators: population, unemployment, educational level, health;
- Indicators of services provided to the population: education, health, drinking water, electrification;
- Others: indicators for the analysis of poverty in ACP countries.

The main evaluation indicators are those that specify the data needed to make a judgement based on specific judgement criteria. An indicator can be constructed specifically for an evaluation or measured through a survey. It may also be drawn from monitoring databases, a performance assessment framework or statistical sources.

A qualitative indicator measures the target group's opinion on a specific subject, e.g. how parents perceive their children's possibility of attending a primary school class with a qualified teacher (very good/good/average/poor/very poor). A quantitative indicator gives information on an issue that can be measured or counted, e.g. the number of qualified and experienced teachers. More advanced indicator (ratios, rates) may be calculated on the basis of a basic quantitative indicator directly resulting from the counting process, e.g. the educational cost per pupil or the number of qualified experienced teachers per thousand children of primary-school age. If there are no indicators available that directly measure what is needed for the evaluation, proxy indicators may be used; these are indicators that measure related issues rather than directly the issue evaluated, but can still give general information on trends and tendencies.

Indicators, as mentioned before, may belong to different categories: inputs, outputs, results or impacts. When an evaluation question centres on an intended result or impact, it is worth checking whether this result or impact has been subject to performance monitoring. In such cases, the evaluation uses the corresponding indicators and data, which generally should also provide baseline data. However, performance monitoring data do not cover cross-cutting issues, sustainability factors, unintended effects, evolving needs or problems, coherence, etc.

Performance indicators and targets are often expected to be SMART: Specific; Measurable; Attainable; Realistic; Timely.

Indicators used to evaluate an effect are not in themselves a measurement or evidence of that effect. The indicator only informs on changes, which may either result from the intervention (effect) or from other causes. This is in particular a challenge for budget support programmes.

Budget support evaluations should be carried out every 5 to 7 years, together with the other donors that provide budget support to the partner country to be evaluated. The budget support evaluation should use the methodological approach developed by the OECD/DAC Steering Group for budget support evaluations. Donors need to work closely with evaluation departments of governments throughout the process leading to and during evaluations. The Technical and Administrative Provisions of Financing Agreements and Memoranda of Understanding should include provisions on when and how budget support evaluations should take place. In particular, they should ensure that proper monitoring and data collection systems (including household and other required surveys) are in place.

B.3.4. Eurostat database

The Eurostat website and database provide extensive harmonised data about the EU, the Eurozone, and EU Member States and regions. For many indicators, data is also provided for EFTA countries, as well as for EU candidate countries and potential candidates. Generally, the data for the candidate countries and potential candidates have been reported within the same data collection schemes as the data for the EU Member States and have undergone the same validation. Some data are also provided for the USA, Canada, Japan and other partner countries.

For the candidate countries and potential candidates, Eurostat carries out a dedicated annual data collection on a range of further indicators. These data supplement the data collected through Eurostat's regular data collections. These data are available for Commission use, including the Annual Statistical Annexes of the Annual Progress Reports on the candidate countries and potential candidates issued by DG European Neighbourhood and Enlargement Negotiations (DG NEAR).

The Eurostat website also provides data on the European Neighbourhood Policy (ENP) countries in the ENP-East database and the ENP-South database. These data can also be accessed through the Data Navigation Tree on the Eurostat database, under 'Database by themes' – 'General and regional statistics' – 'Non EU countries'.

Data for the ENP countries are supplied by and under the responsibility of the national statistical authorities in the respective countries or territories. Data from other sources are very limited and clearly identified; the ENP data have not undergone the same validation process as the other data in the Eurostat database.

More information on Eurostat's cooperation with different groups of countries and different statistical capacity development tools can be found on Eurostat's International Cooperation webpage.

To find out more…

about Eurostat international cooperation

- International cooperation - Overview
- Candidate countries and potential candidates
- European Neighbourhood Policy (ENP) countries
- ENP-East countries; Statistics Through Eastern Partnership (STEP)
- ENP-South countries; MEDSTAT
- Pan African Statistics (PAS) programme

about Eurostat data for European Neighbourhood Policy (ENP) countries

- ENP-East database
- ENP-South database
- Eurostat database

To find out more…

about international frameworks:

- UN Resolution 70/1 (2015) "Transforming our world: the 2030 Agenda for Sustainable Development: https://sdgs.un.org/2030agenda
- The Sustainable Development Goals: https://sustainabledevelopment.un.org/sdgs
- The Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs): https://unstats.un.org/sdgs/iaeg-sdgs/
- Paris Declaration on Aid Effectiveness (2005) and the Accra Agenda for Action (2008)
- PARIS21: Dakar Declaration on the Development of Statistics (2009)
- Busan High Level Forum on Aid Effectiveness: Busan Action Plan for Statistics (2011)
- High-level Group for Partnership, Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development (HLG-PCCB)
- United Nations World Data Forum (UN WDF)
- Cape Town Global Action Plan for Sustainable Development Data (2017)

about European Commission development policies:

- European Commission Communication COM(2011) 638: The future approach to EU budget support to third countries
- Shared vision, common actions: a stronger Europe. Global strategy for the European Union's foreign and security policy (2016)
- New European Consensus on Development (2017)
- EU as a global leader: the European Green Deal (factsheet, December 2019)
- DG International Partnerships: Green Alliances and Partnerships; the Global Climate Change Alliance Plus (GCCA+)
- Proposal for a Regulation of the European Parliament and of the Council COM(2018) 460 final establishing the Neighbourhood, Development and International Cooperation Instrument
- DG International Partnerships: Global Europe: Neighbourhood, Development and International Cooperation Instrument website and factsheet
- DG International Partnerships: Factsheet on the Multiannual Financial Framework 2021-2027 and the Neighbourhood, Development and International Cooperation Instrument (2020)
- Partnership between African, Caribbean and Pacific states and the EU: the Cotonou Agreement (2000; extended to 30 November 2021); new Partnership Agreement between the EU and the Organisation of African, Caribbean and Pacific States (OACPS) (agreed on 15 April 2021; name and official starting date to be announced)

about procedures for European Union development financing instruments:

- Commission Staff Working Document SWD(2018) 444: A Revised EU International Cooperation and Development Results Framework in line with the Sustainable Development Goals of the 2030 Agenda for Sustainable Development and the New European Consensus on Development
- Instructions for the Programming of the 11th European Development Fund (EDF) and the Development Co-operation Instrument (DCI) – 2014-2020 (2012)
- Instructions for the Programming of the European Neighbourhood Instrument (ENI) – 2014-2020 (2012)
- European Commission: Better Regulation Toolbox; Tool #34 Developing countries
- Summary on context indicators
- European Commission – DG International Partnerships: Budget Support Guidelines (2017)
- European Commission – DG International Partnerships: Budget support website
- European Commission – DG International Partnerships: Budget support – Trends and results 2020
- Commission Staff Working Document SWD(2015) 198: Collect more – Spend better: Achieving development in an inclusive and sustainable way
- European Commission – DG International Partnerships: Aid transparency; Strategic evaluations – Assessing the quality of EU development aid; Project and programme evaluations

about the Global Europe - Neighbourhood, Development and International Cooperation Instrument:

- Regulation (EU) 2021/947 of the European Parliament and of the Council of 9 June 2021 establishing the Neighbourhood, Development and International Cooperation Instrument – Global Europe
- Commission Staff Working Document SWD(2018) 337 Impact assessment accompanying the document Proposal for a Regulation of the European Parliament and of the Council establishing the Neighbourhood, Development and International Cooperation Instrument
- DG International Partnerships: Global Europe - Neighbourhood, Development and International Cooperation Instrument (website)
- DG International Partnerships: Factsheet - Global Europe: Neighbourhood, Development and International Cooperation Instrument (2021)
- European Commission: EU budget: Global Europe: Neighbourhood, Development and International Cooperation Instrument – Performance (website)
- European Commission: EU budget: Programme and performance .NDICI (factsheet; 2021)
- DG International Partnerships: Factsheet - EU Budget for the Future - The Neighbourhood, Development and International Cooperation Instrument 2020 (2020)

B.4 Statistics across policy sectors

B.4. Statistics across policy sectors

The chapter in brief

This chapter presents some international indicators that have cross-sectional coverage and are relevant to the European Commission development aid process, in particular the SDG indicators and indicators to assess the implementation of a Poverty Reduction Strategy. Examples of project or programme indicators are presented in the specific sector chapters of this Guide.

Finally, the chapter describes the links between the European Commission's defined policy sectors and statistical activities.

B.4.1. Sustainable Development Goals indicators

B.4.1.1. THE SUSTAINABLE DEVELOPMENT GOALS, THEIR TARGETS AND INDICATORS

The eight Millennium Development Goals set specific targets on poverty alleviation, education, gender equality, child and maternal health, environmental stability, HIV/AIDS reduction, and a 'Global Partnership for Development.' By 2015, substantial progress had been made towards achieving the MDGs; global poverty had continued to decline, more children than ever were attending primary school, child deaths had dropped dramatically, access to safe drinking water had been greatly expanded, and targeted investments in fighting malaria, AIDS and tuberculosis had saved millions of lives.

However, the world community was committed to continue the efforts to achieve a world of prosperity, equity, freedom, dignity and peace for all. The 17 Sustainable Development Goals are to be achieved by 2030. These goals are broken down into 169 specific targets. To measure the progress towards attaining these targets, the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) has developed a framework of SDG indicators, which was adopted by the UN Statistical Commission in its meeting in March 2016. There are currently 231 unique SDG indicators. However, 12 indicators repeat under two or three different targets, thus the global monitoring framework lists 247 indicators.

The follow-up and review of the progress towards the SDGs is informed by an annual progress report prepared by the Secretary-General in cooperation with the United Nations system, based on this global indicator framework, data produced by national statistical systems and information collected at the regional level. In July 2016, the first annual Sustainable Development Progress Report was published by the United Nations, based on the SDG indicators. Updated and further expanded issues of the SDG progress report has been published annually ever since.

Also in 2016, the UN Statistics Division launched the SDG global indicators database, which provides the data compiled for the annual SDG progress report. The SDG indicators database also provides detailed metadata for each SDG indicator, including definition, calculation methods, data sources, responsible custodian institution (mostly UN organisations) and other methodological information. An 'E-Handbook on Sustainable Development Goals Indicators' has also been added, enabling national statisticians to monitor progress in the implementation of the SDGs based on data produced by national statistical systems, focusing on key aspects such as concepts, definition, sources and calculations that are essential for measuring the SDG indicators.

Providing an example of this monitoring framework, the box below shows the relationship between Sustainable Development Goal 1 'No poverty', its associated targets and the indicators used to measure progress toward these targets. This structure is the same for each of the SDGs. The entire framework is presented on the UN Statistics Division website dedicated to the SDG indicators.

Box 4.1: Sustainable Development Goals, targets and indicators (example)

Sustainable Development Goal 1: End poverty in all its forms everywhere

Targets		Indicators	
1.1	By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day	1.1.1	Proportion of the population living below the international poverty line by sex, age, employment status and geographic location (urban/rural)
1.2	By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	1.2.1	Proportion of population living below the national poverty line, by sex and age
		1.2.2	Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
1.3	Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	1.3.1	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable
1.4	By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	1.4.1	Proportion of population living in households with access to basic services
		1.4.2	Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure
1.5	By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	1.5.1	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population
		1.5.2	Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)
		1.5.3	Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030
		1.5.4	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies
1.a	Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions	1.a.1	Total official development assistance grants from all donors that focus on poverty reduction as a share of the recipient country's gross national income
		1.a.2	Proportion of total government spending on essential services (education, health and social protection)
1.b	Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions	1.b.1	Pro-poor public social spending

The 2030 Agenda for Sustainable Development requires each country to produce a large number of statistics-based indicators, the frequency of data depending on the indicator and the country's level of development. The data is intended for use as a development map to illustrate how countries, regions and the world as a whole are progressing towards attaining the Sustainable Development Goals.

Although the previous Millennium Development Goals indicators stimulated demand and co-ordinated international support for sustainable national statistical capacity development, they also led to debates about the quantity and quality of the data and associated metadata (the description of the basis of the data). These questions fundamentally centred on data availability, comparability and national ownership of the indicators.

The IAEG-SDGs addressed a number of these issues in its work, leading to the global monitoring framework and its indicators. However, this continuous process involves further development and critical review of these indicators, as well as the definition and implementation of work plans. Thus, in 2016, the IAEG-SDGs launched an open consultation on possible refinements to the global indicator framework.

In March 2015, the United Nations Statistical Commission created the 'High-level Group for Partnership, Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development' (HLG-PCCB), aiming to establish a global partnership for sustainable development data. The HLG-PCCB provides strategic leadership for the SDG implementation process as it concerns statistical monitoring and reporting.

Following the recommendations in the report 'A World That Counts', presented in November 2014 by the United Nations Secretary-General's Independent Expert and Advisory Group on Data Revolution for Sustainable Development, the UN Statistical Commission agreed that a United Nations World Data Forum on Sustainable Development Data (UN World Data Forum) would be the suitable platform for intensifying cooperation with various professional groups, such as information technology, geospatial information managers, data scientists, and users, as well as civil society stakeholders.

The 'Cape Town Global Action Plan for Sustainable Development Data' (CTGAP) was launched at the first UN World Data Forum in Cape Town, South Africa, in January 2017. The implementation of the CTGAP shall address gaps in national statistics and statistical coordination identified in response to the 2030 Agenda. It is essential that such gaps are addressed in order to better enable the use of country-generated statistics in the calculation of global SDG indicators. The goal shall be to strengthen the national statistical systems so that they can be most responsive to statistical needs to achieve the 2030 Agenda and beyond.

The CTGAP proposes six strategic areas, each associated with several objectives and related implementation actions:

Strategic Area 1: Coordination and strategic leadership on data for sustainable development

Strategic Area 2: Innovation and modernisation of national statistical systems

Strategic Area 3: Strengthening of basic statistical activities and programmes, with particular focus on addressing the monitoring needs of the 2030 Agenda

Strategic Area 4: Dissemination and use of sustainable development data

Strategic Area 5: Multi-stakeholder partnerships for sustainable development data

Strategic Area 6: Mobilize resources and coordinate efforts for statistical capacity building

The implementation of the CTGAP is supported by the Dubai Declaration, which was announced at the UN World Data Forum in Dubai, United Arab Emirates, in 2018. The Dubai Declaration calls for the establishment of an innovative funding mechanism open to all stakeholders that will aim to mobilise both domestic and international funds, and to activate partnerships and funding opportunities to strengthen the capacity of national data and statistical systems.

The box below shows how an SDG indicator is developed based on existing statistics.

Box 4.2: Building a statistical indicator of poverty

'No poverty' is the first of the Sustainable Development Goals (SDGs); more specifically, it is defined as "By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day". To measure progress towards this first target, SDG indicator 1.1 is the 'poverty headcount ratio', which is defined as:

'The proportion of the national population living in households with per-capita consumption or income that is below the international poverty line of USD 1.25. It is calculated by dividing the number of persons living in households below the poverty line by the total number of persons.'

Data on household income, consumption and expenditure are generally collected through household budget surveys or other household surveys (LFS, HIES, LSMS, Integrated household surveys, etc.). National statistical offices, sometimes in conjunction with other national or international agencies, usually undertake such surveys, typically every three to five years in developing countries.

Household income may be converted into income per adult equivalent. This can be calculated for different types of households (e.g. rural or urban, by gender of the head of the household, etc.) Income-per-adult equivalent can also be used to define national 'poverty lines', the level of income under which the household is considered as poor.

When using statistical data that originates from different surveys, attention must be paid to the definitions of income, for instance, whether income in kind is included or not. At country level, comparisons over time may be affected e.g. by changes in survey types or data collection methods.

The use of purchasing power parity (PPP) ensures that differences in price levels across countries are taken into account. The PPP is computed on the basis of price data from across the world; for the 2011 PPPs, prices were collected across 199 countries. As differences in the cost of living across the world evolve, the global poverty line has to be periodically updated. The responsibility for determining a particular year's PPP rests with the International Comparison Program (ICP), an independent statistical program.

A continuously debated issue remains the consistency between data and indicators published by the countries themselves on the one hand and indicators published by international organisations on the other hand. Such indicators in international databases/publications may result from conversion or transformation of national data in order to comply with international definitions (and thus increase comparability across countries), or they may be estimated for other reasons. The 'countryData' database, published by the UN Statistics Division, provides concise comparisons between national and international estimates of development indicators.

Part C discusses whether and how to provide European Commission support in order to improve the national data required for the SDG indicators and other indicators.

To find out more…

- United Nations: Sustainable Development Goals (official website); Annual SDG Progress Report (2021)
- United Nations Statistics Division: SDG indicators website; official list of SDG indicators; SDG global indicators database; E-Handbook on SDG indicators; countryData database
- United Nations Secretary-General's High-Level Panel on Global Sustainability (GSP): 'Resilient People, Resilient Planet: A Future Worth Choosing' (2012)
- UN system Task Team: Realizing the future we want for all (2012)
- UN Secretary-General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development (IEAG): A World That Counts: Mobilising The Data Revolution for Sustainable Development (2014)
- High-level Group for Partnership, Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development (HLG-PCCB) (website)
- UN World Data Forum (website)
- Cape Town Global Action Plan for Sustainable Development Data (CTGAP) (2017)
- Dubai Declaration (2018)
- United Nations' Sustainable Development Solutions Network (website)
- United Nations Statistics Division: countryData database

B.4.1.2. GDP AND BEYOND – MEASURING PROGRESS, WELL-BEING AND SUSTAINABLE DEVELOPMENT

The Gross Domestic Product (GDP) is the best known measure of macro-economic activity. GDP aggregates the value added of all money-based economic activities. It is based on a clear methodology that allows comparisons to be made over time and between countries and regions. GDP has also come to be regarded as an indicator for overall social development and general progress. However, there are growing demands to measure progress, well-being and sustainable development in a more meaningful way. The definition of GDP implies clear limitations on its use as a measure of well-being and of economic, environmental and social sustainability. The need to develop better data and indicators has been the focus of several international initiatives.

In 2008, the French government set up the 'Commission on the measurement of economic performance and social progress', also known as the 'Stiglitz-Sen-Fitoussi Commission'. Its aims were to identify the limits of GDP as an indicator of economic performance and social progress, to consider what additional information might be required for producing more relevant indicators of social progress, and to assess the feasibility of alternative measurement tools.

In 2009, the 'Stiglitz-Sen-Fitoussi Commission' Report was published, presenting 12 recommendations on how to better measure economic performance, societal well-being and sustainability. The report was explicit on the need to look beyond factors of production to better measure economic performance and social progress in the context of sustainability. It suggested new avenues for better measurement in three main areas:

- Economic performance where improvements in GDP accounting are needed;
- Societal well-being (quality of life, including subjective measures of well-being);
- Sustainability and the environment.

The European Commission's Communication 'GDP and beyond — Measuring progress in a changing world' in 2009 aimed at developing more inclusive indicators that provide a more reliable knowledge base for better public debate and policy-making. It pointed to the need to improve, adjust and complement GDP with indicators that concisely incorporate social and environmental achievements (e.g. improved social cohesion, accessibility and affordability of basic goods and services, education, public health and air quality) and setbacks (e.g. increasing poverty, more crime, depleting natural resources). It proposed five priority actions to further develop environmental and social indicators and to report more accurately on distribution and inequalities:

Action 1: Complement GDP with environmental and social indicators (a comprehensive environmental index, quality of life and well-being).

Action 2: Provide near real-time information for decision-making (more timely environmental and social indicators).

Action 3: Report more accurately on distribution and inequalities

Action 4: Develop a European sustainable development scoreboard

Action 5: Extend national accounts to environmental and social issues

To answer the challenges to official statistics presented by these two initiatives, the European Statistical System launched a 'Sponsorship Group'. This Sponsorship Group addressed statistical gaps, making concrete proposals on how to implement the recommendations of the 'Stiglitz-Sen-Fitoussi Commission' report and the 'GDP and Beyond' Communication. Its mandate was mainly to prioritise actions

with the aim of producing adequate indicators rather than proposing an additional conceptual framework; the work focused on making better use of and improving existing statistics with a view to providing the most appropriate indicators. Its report 'Measuring Progress, Well-being and Sustainable Development' was adopted the European Statistical System Committee in November 2011. This report identifies more than 50 concrete actions for improving and developing European statistics over the coming years. The priority areas were:

- Household perspective and distributional aspects of income, consumption and wealth;
- Multidimensional measurement of the quality of life;
- Environmental sustainability.

The Sponsorship Group concluded that, for comparison purposes, core instruments are one important way of building harmonisation and these should be developed; these should be defined in close cooperation with international partners.

This development work is continued through several international initiatives. The OECD's 'Better Life Initiative' and work programme on 'Measuring Well-Being and Progress' helps to understand what drives well-being of people and nations and what needs to be done to achieve greater progress for all. For well-being measures to start making a real difference to people's lives, they have to be explicitly brought into the policy-making process, requiring bridging of the gap between well-being metrics and policy intervention. The measuring well-being agenda calls for new and improved statistical measures, aimed at filling the gap between standard macroeconomic statistics that sometimes are used as proxies of people's welfare and indicators that have a more direct bearing on people's life.

The World Bank has released the report 'The Changing Wealth of Nations 2018: Building a Sustainable Future', presenting wealth accounts that allow countries to take stock of their assets to monitor the sustainability of development. The publication covers national wealth as the sum of produced capital, 19 types of natural capital, net foreign assets, and human capital overall as well as by gender and type of employment. New data substantially improve estimates of natural capital, and, for the first time, human capital is measured by using household surveys to estimate lifetime earnings.

The United Nations Environment Programme's (UNEP) 'Inclusive Wealth Report' (IWR) evaluates the capacities and performance of nations around the world to measure sustainability of the economy and the wellbeing of their people. The existing statistical systems in the countries are using the System of Environment and Economic Accounts, which are geared to measure flow-income. The flow would critically depend upon the health and resilience of capital assets like manufactured capital, human capital and natural capital. A country's inclusive wealth is the social value (not dollar price) of all its capital assets, including natural capital, human capital and produced capital.

To find out more…

About measuring growth, well-being and sustainable development, beyond the Gross Domestic Product

- International Commission on Measurement of Economic Performance and Social Progress (Prof. J. Stiglitz, Prof. A. Sen, Prof. J.P. Fitoussi; 2009)
- European Commission Communication COM(2009) 433: GDP and beyond – Measuring progress in a changing world (2009)
- European Statistical System: 'Measuring Progress, Well-being and Sustainable Development' website (2011)
- European Commission, DG Environment: Beyond GDP
- OECD: Better Life initiative: Measuring Well-being and Progress (website)
- World Bank: Changing Wealth of Nations (2018)
- United Nations Environment Programme (UNEP): Inclusive Wealth (2018)

B.4.2. Indicators for poverty reduction strategies

The World Bank and the IMF introduced the Poverty Reduction Strategy (PRS) approach in the context of their joint Initiative for Heavily Indebted Poor Countries (HIPC). The analysis is structured to promote country policies and activities that can meet the overall country economic and social goals. The approach has also been a cornerstone for IMF concessional financing and the Policy Support Instrument (PSI), the non-financing instrument for low-income countries.

Following the completion of the HIPC process, the content and process of PRS documentation changed. Most countries eligible for concessional financing were no longer required to produce HIPC-related PRS documentation to qualify for debt relief. In parallel, countries increasingly produced PRS documentation for their own domestic purposes on timelines determined by national needs. Reflecting these developments, the World Bank delinked its concessional financial support from the PRS process.

The new PRS approach is more flexible and streamlined, with a focus on macro-relevant aspects of the PRS. It is based on an Economic Development Document (EDD) that can take the form of an existing national development plan or strategy document on the country's PRS or a newly prepared document on the PRS. Minimum standards apply to the content of the EDD and good practice guidelines are expected to be followed, while taking into consideration specific country circumstances.

Indicators are required at each level of the PRS analysis. The indicators of human development and poverty reduction should be, at the levels of objectives and development outcomes, similar or identical to SDG indicators as they serve the same purposes. At the action / policy level, indicators are often specified in less detail in the PRS itself, because individual activities will often be designed subsequent to the adoption of the PRS.

While PRSs and EDDs can require diverse data, commonly used indicators are:

- economic statistics (macroeconomic monitoring): two key national accounts aggregates, i.e. Gross National Income (GNI), Gross Domestic Product (GDP); consumer price index (inflation monitoring); public finance statistics (budget balance, public debt); balance of payments;
- demographic statistics: enumeration of population, its geographical distribution, its distribution by age and sex, mortality (especially infant mortality) by age and sex and birth rates;
- statistics on household living conditions: income and expenditure, consumption, household equipment, employment;
- statistics on education: population of school age, school attendance, adult literacy, diplomas delivered, teachers, schools and their equipment;
- statistics on health: population morbidity, access to healthcare, staff and health infrastructures.

Although PRSs and EDDs base their indicators on existing data sources where possible, there is an explicit recognition that PRS implementation may require improvement of the statistical quality and / or the range of available statistics.

A Performance Assessment Framework (PAF) is the core tool for the joint assessment by government and development partners of implementation of the national strategy and reform programme. The PAF is a government-owned document that prioritises reform measures and agreed targets in priority sectors within the national strategy. It provides a concise and verifiable set of indicators that is regularly revised in line with progress. Most PRSs and EDDs have an associated PAF.

The PAF should contribute to national capacities in planning, implementing, monitoring and evaluating its programmes. The long term vision is for ministries and agencies to produce their own quantified and verifiable input, output and outcome indicators as a part of their annual planning processes.

PAF-type instruments are influenced by the European Commission Budget Support framework. The PAF design should ensure that indicators are simple and that systems are in place to produce the data necessary to monitor progress on a timely basis. The PAF as a whole is not necessarily used as the basis for budget support disbursement, although all disbursement indicators should be included in the PAF.

Each year, the national government will identify a concise list of the highest priority indicators and targets for the subsequent year, from its overall goals and targets. The selection of appropriate targets and indicators is the responsibility of the national planning ministry, in consultation with sector ministries and spending agencies, donor partners and other stakeholders. The PAF should include, as far as possible, indicative targets and indicators for the succeeding two years based on medium-term commitments in the national strategy and medium term expenditure framework.

The World Bank Group's Country Partnership Framework (CPF) aims to make its country-driven model more systematic, evidence-based, selective, and focused on the World Bank's twin goals of ending extreme poverty and increasing shared prosperity in a sustainable manner. Used in conjunction with a Systematic Country Diagnostic (SCD), the CPF guides the World Bank Group's support to a member country.

A Systematic Country Diagnostic (SCD) informs each new CPF. The aim of the SCD is to identify the most important challenges and opportunities a country faces in advancing towards the twin goals. This is derived from a thorough analysis, and informed by consultations with a range of stakeholders. SCDs are built on an analysis of data and existing studies by the World Bank Group and external partners, and aim at identifying the most critical constraints to, and opportunities for, reducing poverty and building shared prosperity sustainably. The SCD's findings take into account the views of a broad set of stakeholders, including the private sector.

To find out more…

- International Monetary Fund: Reform of the Fund's Policy on Poverty Reduction Strategies in Fund Engagement with Low-Income Countries—Proposals (2015)
- International Monetary Fund: IMF Support for Low-Income Countries (2021)
- World Bank Group: Policy and Procedure Framework (2018) with Directive for Country Engagement (2014)
- World Bank Group: templates with instructions for Country Partnership Framework (CPF), CPF Results matrix and Performance and Learning Review (PLR)
- World Bank Group: Country Partnership Frameworks (website); example Kazakhstan Country Partnership Framework 2020-2025 (2019)

B.4.3. European Commission policy intervention areas and related statistical activities

General development strategies target development of overarching aspects of society such as economic growth or poverty reduction. To assess the progress in these fields, quantifiable information is needed on a wide range of aspects associated with the strategy. For example, Poverty Reduction Strategies and Economic Development Documents use a variety of indicators to quantify targets and measure progress.

These indicators are drawn from a wide range of statistics, including e.g. national accounts, price statistics, public finance statistics, balance of payments, population statistics, education statistics, health statistics, and obviously statistics on living conditions and poverty.

Although there are common characteristics across statistics areas, each statistics area has its own characteristics, challenges, sources and data providers. The evidence base on specific statistics areas, which is required for policy formulation, implementation, monitoring and assessment, may not be available, may be of inadequate quality, may need

to be transformed to be comparable with other sources or may need to be interpreted with special care.

The sector chapters in the thematic volumes of this ***Guide*** provide detailed information on statistics needed to inform specific policy areas where the European Commission has a 'comparative advantage'. The chapters are organised according to the policy area they mainly inform. The statistics covered by the chapters are defined according to the Conference of European Statisticians' 'Classification of Statistical Activities' (CSA), which is used to classify statistical activities of international organisations and national actors. CSA is also used by PARIS21 to classify statistical activities in the Partner Report on Support to Statistics (PRESS), it forms the basis for categorising standards in the UNSD's Global Inventory of Statistical Standards, and a slightly revised version of the first three domains are adopted as part of the Statistical Data and Metadata eXchange (SDMX) Content-oriented Guidelines.

The chapters in the thematic volumes offer advice on how statistics and indicators from different sectors can be used to inform policies, to monitor progress and evaluate outcomes and impacts. The chapters present data needs and use for specific statistics areas and provide the main definitions and concepts used. They describe how data quality and data availability in the area can be improved and give practical advice and examples of how the statistical system can be developed.

To find out more…

- European Commission Staff Working Document SWD(2018) 444 final: A Revised EU International Cooperation and Development Results Framework in line with the Sustainable Development Goals of the 2030 Agenda for Sustainable Development and the New European Consensus on Development (2018)
- DG International Partnerships: Budget support website (including links to the European Commission Communication COM(2011) 638 'The Future Approach to EU Budget Support to Third Countries' and updated Budget Support Guidelines (2017))
- Eurostat: International cooperation (website)
- Eurostat: International statistical cooperation – Overview (website)
- Eurostat: International cooperation – Statistical capacity building tools (website)
- Conference of European Statisticians (CES): Classification of Statistical Activities (CSA)
- PARIS21: Partner Report on Support to Statistics (PRESS) (website)
- United Nations Statistics Division (UNSD): Global Inventory of Statistical Standards (website)
- Statistical Data and Metadata eXchange (SDMX) Content-oriented Guidelines (website)

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C Support for statistics

C.5 How to decide on a statistical action

C.5. How to decide on a statistical action

The chapter in brief

This chapter explains the aims and methods used to strengthen the capacity of countries to produce and publish statistics of good quality and to improve the ability of users to understand and analyse such statistics. This issue may arise when a country or region requests support to improve their results framework or when poor quality or absence of data required for policy / activity formulation, implementation, monitoring and evaluation clearly impedes the national / joint development agenda of the country or region.

The chapter includes an overview of the concept of 'quality' in statistics: what should a developing country's statistical system be able to provide for its users? With the objective quality measures as a benchmark, the chapter also considers methods of evaluating a country's statistics and the system that produces them. The methods proposed start with the simplest and become progressively more systematic. It includes the most recent internationally agreed standards and tools for data management and quality frameworks.

C.5.1. The importance of National Statistical Systems

C.5.1.1. NATIONAL STATISTICAL SYSTEMS ARE GENERATORS OF OFFICIAL STATISTICS

National statistical systems, generally with a national statistical office at the heart, are the key producers of official statistics. Without good statistics, governments face great problems in delivering efficient administration, good management, and evidence-based policy making. An effective and efficient national statistical system, providing regular and reliable data, is an important indicator of good policies and a crucial component of good governance. Quality statistics increase transparency and promote the accountability of policy-makers by enabling media, non-governmental organisations and citizens to monitor the activities of government.

Good and reliable statistics are also essential to international organisations and other donors. These need to assess where aid is most needed, whether resources are used efficiently, to measure progress and to evaluate results. Statistics are vital for mutual accountability between beneficiaries and donors and for a focus on results.

Regional cooperation is an engine of economic growth, development and security. The European Commission supports a strengthened role for regional and sub-regional organisations in the process of enhancing international peace and security, including their capacity to coordinate donor support. International cooperation partners also need to make cross-country comparisons in order to evaluate the effectiveness of global and regional policies. Therefore, they are supporters of regional harmonisation of data, so that these become regionally comparable. With its extensive experience in harmonising classifications, definitions, concepts and statistics in a large group of countries, the European Commission has often taken the lead in such international efforts. The role and activities in statistics of different regional and international organisations is explored in section B.2.4.

In low income developing countries, the national use of and interest in statistics may be low. However, promotion of evidence-based policy-making along with advocacy on the importance of statistics raises national user interest. This, together with strategic planning in the NSS, should substantially increase the interest and trust in statistics and thus the level of analysis.

The Paris Declaration on Aid Effectiveness (see section B.1.4.), the Accra Agenda for Action (AAA) and the Busan Action Plan for Statistics (see section B.1.3.3.3) encourage developing countries to set their own strategies for poverty reduction, improve their institutions and tackle corruption. National ownership of statistics implies that surveys first and foremost respond to the national need for data to inform policies and therefore to meet user needs.

Central to the New European Consensus on Development (see section B.1.4.1.) are ownership of development priorities by developing countries, a focus on results, inclusive development partnerships, transparency and mutual accountability. The EU defines its objectives based on the partner countries' own development priorities, supporting the policy processes for formulating these priorities, as well as the results frameworks to manage and report on them. The EU also works through strengthening and building on partner countries' own systems to deliver on policy objectives and implement development programmes.

For measuring progress towards the SDGs and their targets, data are produced by national statistical systems, ensuring national ownership. Countries are asked to strengthen collection of baseline data in order to better measure progress for each of the SDGs. A core element of the global indicator framework is the disaggregation of data and the coverage of particular groups of the population, in order to fulfil the main principle of the 2030 Agenda of "leaving no one behind", e.g. by gender, by age group or by rural versus urban population. Thus, statistical capacity building is essential for national statistical systems to meet the demands of the 2030 Agenda.

C.5.1.2. DATA AVAILABLE THROUGH THE NATIONAL STATISTICAL SYSTEMS

The purpose of evaluating a country's statistics system is to understand what the country is currently capable of producing, in terms of quantity and quality of statistics, and what it actually does produce. A detailed evaluation will identify the major constraints to the system.

The best starting point in identifying statistics as a potential sector for support should be the national development strategy or poverty reduction strategy. The ideal situation is that a National Strategy for the Development of Statistics

(NSDS) exists (see section C.6.1) that is compatible with the national development strategy. If this does not exists, a national results framework that is based on or at least includes SDG indicators can be the target for improvement.

If there is no means to obtain expert analysis of data coverage and quality and no recent analysis has been made, the non-specialist should examine a core indicator set for performance monitoring so as to look at what data exists and what its status is. If there is no agreed performance monitoring system, the World Bank's "World Development Indicators (WDI)" can provide a core indicator set for the non-specialist to analyse. However, these indicators should not be used as the target for support.

Availability and reliability of data is a basic indicator of the condition of the statistical system. Indicators should be drawn directly from national sources to ensure that the country analysis is based on the most up-to-date data available and that there is agreement among the development partners on the data sources to be used.

The core economic data should be fairly complete and up to date. What 'up to date' means depends on how frequently, easily and rapidly data can be collected, processed and published. Discussions of the international recommendations for when data should be available are located in the relevant sector chapters of the thematic volumes of this Guide.

The national sources for key economic indicators are mostly the NSI and the Central Bank. However, data published by the World Bank is often used in practice. Key NSI data sources are ideally online databases, but in practice often national statistical yearbooks and periodic (usually quarterly or annual) statistical digests. Press releases give the most recent information, although they can be subject to revision. As a matter of principle, national data sources should be preferred. In particular, this is the case where there is no need for cross-country comparison.

Data availability for the other SDG indicators may be less straightforward than for economic and demographic data. Data may originate from outside the NSI, such as Ministries for Health, Ministries for Education, Ministries for Rural Development, etc. Coordination among statistics producers and publishers can be difficult and there are more likely to be 'competing' duplicate statistical publications than with the economic data. However, the focus on collecting and compiling reliable data for the SDG indicators has often improved coordination. In cases where several potential sources are available, identification of the best source usually requires sector knowledge. Social data is generally less frequently updated than economic and demographic data. In some such cases, appropriate methods are used to project estimates for years in which no new data are collected. Such estimates should be clearly indicated in the published data.

It is essential to use the most recent version of the data. It is therefore necessary to keep a record (metadata) of the source (publication, edition and publication date) of each data series and, if necessary, each data point.

Many developing countries' NSIs and Central Banks have websites, although they may not be stable. These websites vary enormously in structure and quality, and the update frequently may vary strongly.

A checklist on the key points to look at when analysing national data is given in Box 5.1. The first points to be checked are general; the later points are more specific, but most of them can still be checked by someone with no specialist knowledge.

Box 5.1: Key questions for examining national data

- Are data that cover performance indicators available from national sources?
- Is the statistical information about the sector sufficiently up-to-date so that it can be used to evaluate progress against a baseline?
- Will the frequency of data publication allow the National Indicative Programme's implementation to be monitored?
- Are the data sufficiently disaggregated for activity monitoring and evaluation?
- When is the base year for quantity or index calculations? Is the base year more than 10 years old?
- Do the statistics appear to be reliable at first glance:
  - Are rates of change over time plausible?
  - Do national data broadly concur with data from international sources?
  - Can more detailed data be aggregated to totals that have been published (where technically possible)?
  - Are the shares (e.g. in percentages) of disaggregated data reasonably stable over time?
- Is the current data easy to obtain? Can it be found on the internet?
- Are there 'competing' data sources on the same subject published by more than one organisation?
- Is methodological documentation available?
- Are there references to international methods and classifications and do they appear to be adhered to?
- Does the data broadly meet the international quality standards as applied to the sector?
- For economic statistics, is the national data broadly comparable with international sources?

Measuring and monitoring development outcomes require timely, reliable, comparable, relevant and accessible survey data. But in many developing countries, survey programs rarely provide the necessary flow of reliable, timely, comparable and accessible data. The timing of national surveys is rarely optimal, data collection programs lack methodological consistency, and existing data often remain largely unexploited. In many cases, it is difficult to get a comprehensive picture of which data are actually collected throughout the national statistical system.

C.5.1.3. INTERNATIONAL SOURCES AS DATA SOURCES AND QUALITY REFERENCES

International data sources are useful for a first examination of a country's statistical system, even though their primary purpose is to act as a basis for comparison between countries. The differences between data from national and international sources can provide a pointer either to the ease of communications between the country and the compiler of the international data or to the confidence that the international organisation has in the national data, although it can be difficult to distinguish between these two situations.

Eurostat has made available for European Commission staff a number of important indicators. The data are mostly sourced from international organisations, in particular the World Bank and IMF. The main international data sources were first presented in section B.2.4. The IMF Statistical Annexes are particularly useful for looking at the quality of economic statistics such as GDP. These annexes are not adjusted to follow a set format or to be comparable between countries. For this reason, this data gives an indication of the IMF's view of the data quality: if the data in this document is similar to the data in national publications, this may imply a positive view by the IMF of the country data.

Data in the United Nations Statistics Division's Sustainable Development Goals indicators global database can be compared with national data sources on social issues. There can be a variety of possible causes for national data to be missing, estimated or very different from nationally published data in the international database. Considerable sector knowledge is often required.

Looking at the available international data and trying to find its national counterpart can give an idea of how accessible the statistics are and to what extent they contain or give directions for finding the metadata. The United Nations Statistics Division's countryData database provides data both from national sources and corresponding data from international sources. The database also provides concise comparisons between the national and international estimates of development indicators and explains the reasons for any differences. This helps users to make informed decisions as to which data are most appropriate for their needs.

In certain cases, data not available at national level may be replaced by data available through international sources. This can be the case e.g. when international organisations have used nowcasting and/or forecasting techniques to produce estimates, when data too uncertain to be published at national level have been further processed and improved by use of secondary sources or data structures from similar countries, etc. However, using international sources should only be a temporary solution. If key data are missing at national level, the medium and long term objective must be to develop the statistical system's capacity to provide such data, according to sound methodology, international standards and classifications and with good quality. Above all, the statistical system must be enabled to produce the data long term, in other words the sustainability of the data provision process must be assured. Strengthening of the capacity of the national statistical system and strategic development of statistics is described in chapter C.6.

To find out more…

The United Nations Statistics Division lists internet addresses of developing country NSI websites

IMF Statistical Annexes

The UN Statistics Division's Sustainable Development Goals indicators global database, covering a wide range of social, economic and environmental indicators for agreed policy goals

The UN Statistics Division's countryData database provides data from national sources and corresponding data from international sources, provides concise comparisons between them and explains any differences.

C.5.2. Assessing the capacity of the National Statistical System

C.5.2.1. OBJECTIVE OF THE ASSESSMENT

Statistical quality is most often defined as 'fitness for use' by end users. Quality therefore depends on data uses and users. Various users – local, national and international – can have different demands. Analysis of statistical quality permits the identification of target areas for capacity building.

The analysis so far has covered the data and other basic facts of the national statistical system. It may have arrived at some tentative conclusions concerning the quality of the data available for use for policy making and management and for European Commission development cooperation in particular. The demand for statistics for policy formulation and management is the point of departure for both an assessment of a National Statistical System (NSS) and for a medium term statistical strategy more generally. Approaches to statistics strategies are discussed in more depth in section C.6.1.

Correcting widespread deficiencies in published statistics requires an understanding of their causes, direct and indirect. Any fruitful analysis of the NSS must be undertaken and owned by the country itself. Thus, prior support at the political level is essential for an in-depth assessment, including recognition of the resources required for an effective statistics system. Support for an assessment should be a precursor to medium term support for statistics capacity development.

Providing support for assessing an NSS is a strategic choice. It should be discussed with the development partners in a country. As in any other field, a strategic diagnosis and recommendations should be owned by the partner country and agreed and shared by development partners. This forms a basic starting point towards coordination.

C.5.2.2. THE ISSUES TO BE ADDRESSED

The typical difficulties that face an NSS can be classified into:

- Legislation and strategic relationships with government and within the NSS. (these were outlined in section B.2.3.);
- Financing and consequent human resources issues;
- Systems and infrastructure.

A detailed assessment of the NSS must obtain sufficient information on these issues to allow appropriate conclusions to be drawn.

As with other government departments, the NSI and other statistics producers may not receive sufficient financing from the national government. Lack of funding could be motivated by:

- Overall lack of government funds and / or budgeting problems at government level;
- Lack of understanding of the need for and use of statistics and / or;
- Lack of confidence in the NSI to deliver quality statistics for policy purposes.

Largely as a consequence of financial problems, human resources difficulties such as salary levels or late payment of salaries are typical problems for NSIs and other statistics producers. These problems may arise also in other government departments, but personnel issues that might be more evident for statistics producers include:

- Staffing structures that do not reflect current working methods, showing relatively high numbers of low level technical personnel, even if the total number of staff is appropriate;
- Lack of current knowledge and / or skills (at any grade and staff age);
- Absence of human resources strategy or staff training strategy;
- Brain drain towards the private sector.

Some NSIs have been established as public bodies outside national civil services, which may give them greater control and flexibility over staff grading, pay scales and budget certainty. However, institutional independence does not necessarily eliminate any of these problems. NSI senior management may respond to the impact of financial problems on human resources in a sub-optimal way. Statistics managers may not have adequate training or incentive to allow them to focus sufficiently on building, maintaining and updating their department's operational manuals. Managers can therefore lose touch with how data is actually collected on the ground. Such lack of institutionalised knowledge could imply that data quality could suffer from changes in management or in local supervisory staff.

Systems and infrastructure problems that may be faced by NSIs and other major statistics producers include statistics software systems and, more generally, computing, communications and offices that are out of date. Regional statistical harmonisation requires similar classifications to be used, often necessitating recently updated software.

A key reference on the organisation of national UNSD statistical systems is the Handbook of Statistical Organization – 3rd edition. At the time of writing (2021), a new edition entitled 'Handbook on Management and Organization of National Statistical Systems' is close to being officially released; interested readers should consult the UNSD's website for the latest news on this.

C.5.2.3. ASSESSMENT METHODOLOGIES

Since some but not all of the difficulties facing statistics producers are common to other public sector institutions, an assessment methodology must both integrate the NSS study with other public sector institutional assessments and also pay attention to the specific problems facing statistics. One solution is for the development and implementation of a statistics strategy to be part of a general public sector reform programme.

General public sector assessment methodologies are outside the scope of this Guide. The overall methodologies for developing statistics strategies are presented in section C.6.2. As part of these methodologies, international organisations have developed assessment methods that are specific to statistics. An important contribution to this work was the 'Statistical Capacity Building Indicators' analysis developed by the PARIS21 Task Team on Statistical Capacity Building Indicators.

PARIS21 focuses its efforts on encouraging and assisting all low-income and lower middle-income countries to design, implement, and monitor National Strategies for the Development of Statistics (NSDS) and to have nationally owned and produced data for all SDG indicators. Countries need to:

- have an overall vision of the development of their national statistical system, which will include the national, regional, and international needs;
- be part of the country development and poverty reduction policy;
- serve as a framework for international and bilateral assistance;
- include all parts of the data production units and address the issues related to the analysis and use of data;
- follow the international standards including quality; and
- build on all past and existing activities and experiences.

In practice, the set of indicators developed by the PARIS21 Task Team appeared to be too heavy for the countries as well as for the international bodies. However, a number of the proposed tools and principles are used in the different data quality assessment frameworks, in the IMF's Reports on Observance of Standards and Codes (ROSC) and in the World Bank's Statistical Capacity Indicator data and Statistical Capacity Indicator Dashboard.

Statistics is a vital element of the whole cycle of political priority setting, project definition, planning, financing, implementation, and evaluation. Based on its experience as a technical reference throughout this cycle, Eurostat has

considered some of the most pressing problems that may limit the success of statistical cooperation activities.

A key problem is ensuring the sustainability and resilience of the results achieved. The support provided by Eurostat and other Directorates-General should be refined to enable objective measurement and increase the sustainability of the results of statistical cooperation activities, thus making more effective use of available resources.

Eurostat has developed a tool for assessing the organisation and effectiveness of NSS and their capacity to produce quality data. The 'Snapshot' tool provides a quick and easy-to-interpret picture of the main strengths and weaknesses of the NSS, based on internationally agreed principles (UN Fundamental Principles of Official Statistics and similar work) and criteria. This tool for creating a 'Snapshot' of the NSS and its capabilities is presented in Box 5.3 below.

Box 5.2: A tool for EU delegations to create a 'Snapshot' of National Statistical Systems and their capabilities

EU cooperation is led by the key principles of partnership and ownership. As a consequence, the assessment of the performance of national development policies and of EU interventions in support of these policies is based on statistical data that are provided by the national authorities. These statistical data are used to elaborate indicators that are the foundation for assessment of the results achieved; often, they are triggers for the release of funding. It is thus vital that these indicators are reliable and that the national statistical system as a whole is credible, i.e. of good quality.

In order to assess the strengths and weaknesses of a National Statistical System (NSS), based on agreed international principles (see section B.2.1.), Eurostat has developed a tool called 'Snapshot'. This tool translates the complex statistical quality framework into a clear and easy-to-understand assessment of the status and the development of key aspects of statistical systems. The results can be used to analyse the whole NSS or key sectors.

The tool comprises 2 modules:

1. a **first module** providing a diagnostic of the **national statistical system as a whole** by focusing on the institutional, legal and organisational aspects
2. a **second module** providing a method to assess **data quality in specific sectors and indicators in these sectors**. The concept is designed in a way that it fits a wide range of sectors. It is divided into two sub-modules; one dedicated to sector assessment (45 questions) and the other assessing the key indicators of the sector (9 questions).

The tool consists of around 60 questions on key quality dimensions for the outputs of the statistical system, at national and sector levels. The questions cover:

- The legal, institutional and strategic framework at national or sector level (i.e. legal and institutional framework supporting the production of statistics, integration and coherence with the strategic framework supporting statistics development)
- The adequacy of resources (i.e. personnel in adequate quantity, quality of the personnel involved in statistics, equipment and infrastructure, financing)
- The determinants of data quality (i.e. quality commitment, professional independence, impartiality, objectivity, methodology and appropriate statistical procedures)
- The relations with users (i.e. relevance, accessibility)
- Specifically for Module 2: information on the statistical production in the sector (i.e. list of the statistics regularly produced in the sector).

The pre-defined answers give an intuitive colour code for good, average and poor achievement for the issue concerned. This is complemented by an arrow indicating a positive, unchanged or negative trend. This approach provides an easy-to- understand assessment.

Source: Eurostat: Snapshot – A user-friendly tool to assess the strengths and weaknesses of National Statistical Systems

The World Bank's Statistical Capacity Indicator is a composite indicator, aiming to improve the understanding of the statistical capacity of developing countries. The statistical capacity indicator facilitates measuring and monitoring of statistical capacity, with close collaboration with countries and users. It is based on a diagnostic framework developed to assess the capacity of national statistical systems. This framework uses metadata information generally available for most countries and monitors progress in statistical capacity building over time.

This composite Statistical Capacity Indicator is calculated annually, based on information from the World Bank, IMF, UN, UNESCO, and WHO. It provides a statistical capacity score for over 140 developing countries. The results are presented in the World Bank's data portal on Statistical Capacity.

Statistical capacity is closely related with data quality. Two data quality tools developed by the IMF, contains elements directly relevant to assessing statistical capacity of developing countries. The Enhanced General Data Dissemination System (e-GDDS), presented in Box 5.5, superseded the previous GDDS in 2015. The e-GDDS encourages participants to emphasize data publication, assisting participants in improving data transparency and governance through release of data essential for macroeconomic analysis of conditions on a disciplined release schedule. Data should be published according to a set release schedule and in a standardised format, thus facilitating data sharing. The encouraged data coverage of e-GDDS is focused on four data categories essential for macroeconomic monitoring: real sector statistics (incl. national accounts (GDP) and consumer price index); fiscal sector statistics (government operations and gross debt); fiscal sectors statistics; external sector statistics (incl. balance of payments, external debt, international trade in goods, international investment positions, exchange rates). The Data Quality Assessment Framework (DQAF), presented in Box 5.6, builds on five dimensions of data quality: assurances of integrity, methodological soundness, accuracy and reliability,

serviceability, and accessibility. The DQAF, which is used for comprehensive assessments of countries' data quality, covers institutional environments, statistical processes, and characteristics of the statistical products.

The United Nations Statistics Division has developed a National Quality Assurance Framework (NQAF). The NQAF is described in detail in the United Nations National Quality Assurance Frameworks Manual for Official Statistics (UN NQAF Manual), which was developed by the Expert Group on National Quality Assurance Frameworks (EG-NQAF). The Manual and its recommendations were adopted by the United Nations Statistical Commission in March 2019. It is an important contribution in guiding countries in the implementation of a national quality assurance framework, including for new data sources, new data providers, and for data and statistics of the SDG indicators. The implementation of the NQAP is supported by workshop in different regions.

A peer review is an external assessment focused on a national statistical institute with the aim to develop recommendations to improve it. Peer reviews are a key instrument in the European Statistical System's strategy to monitor the implementation of the ESS Code of Practice. Their objective is to review the compliance/alignment of the EU Member States, EFTA countries and Eurostat with the Code of Practice and to help the statistical authorities in the ESS to further improve and develop their national statistical systems.

In its work to support developing countries and countries in its neighbourhood to further develop and improve their national statistical systems, Eurostat has carried out or supported peer reviews, 'light' peer reviews, sector reviews and adapted global assessments of NSIs and NSS in numerous countries. For the EU candidate countries and potential candidates, the European Neighbourhood Policy (ENP) East countries and ENP-South countries, Eurostat has financed and played an active part in managing the process. Assuring transparency of the process, the reports and associated synthesis reports of the peer reviews and global assessments are made available to the public through Eurostat's website. An overview of the approach is presented in Box 5.3.

Box 5.3: Eurostat: peer reviews, light peer reviews, sector reviews and adapted global assessments of NSIs and NSSs in candidate countries and potential candidates and in ENP East and ENP South countries

Peer reviews

Peer reviews are qualitative assessments of how compliant a country's statistical system is with the European Statistics Code of Practice. The peer reviews result in a set of recommendations, the implementation of which is followed up and monitored by Eurostat. The methodology of these reviews is the same as that of the peer reviews carried out in the Member States and Eurostat.

Generally, as preparation and basis for the peer review, countries are required to complete self-assessment questionnaires on:

- a full and a light questionnaire on compliance with the Code of Practice;
- a questionnaire on coordination within the statistical system;
- a questionnaire on cooperation within and integration achieved by the ESS.
- two guides explaining the exercise, one for the statistical authorities and one for the peer reviewers.

Light peer reviews

Light peer reviews target countries with relatively well-developed statistical systems that are on the way to join the EU. Light peer reviews might be considered as precursors of standard European Statistical System peer reviews.

The objectives of Light peer reviews are:

- to assess compliance of the reviewed NSI, in particular with Principles 1 to 6 (i.e. professional independence, mandate for data collection, adequacy of resources, commitment to quality, statistical confidentiality, impartiality and objectivity, respectively) and 15 (i.e. accessibility and clarity) of the European Statistics Code of Practice;
- to evaluate the coordination role of the NSI within the statistical system;
- to highlight transferable practices suitable to foster compliance with the European Statistics Code of Practice;
- to recommend improvement actions needed to fully comply with the European Statistics Code of Practice.

Sector reviews

Sector reviews analyse the statistical production processes in specific sectors in detail. They are specifically tailored to selected partner countries that aim to align important sectors of statistics with European standards.

Sector reviews have the following specific objectives:

- to assess the administrative and technical capacity of the reviewed statistical systems to produce statistics in the sector concerned;
- to assess the statistical production in the relevant sector;
- to assess the statistical production against the EU acquis;
- to review the medium and long-term planning within the sector;
- to propose a list of recommendations to be undertaken in order to improve the data delivery and functioning of the sector under review.

Adapted global assessments

Adapted global assessments are comprehensive reviews of a country's statistical system that are tailored towards the needs of countries with a European perspective which have the intention to align their statistical production to European standards. Adapted global assessments assess the entire national statistical infrastructure and some selected statistical domains of the reviewed country.

The objectives of Adapted global assessments are:

- to assess the administrative and technical capacity of the statistical system;
- to assess the statistical law and other legal acts and their compliance with European and international recommendations and principles;
- to assess the mechanisms used by the national statistical system (NSI) to coordinate the statistical system;
- to review the medium and long-term planning mechanisms in place;
- to propose a list of actions to be undertaken in order to improve and strengthen the statistical system;
- to assess the statistical production against the EU acquis in statistics.

The reports from these reviews and global assessments are available on Eurostat's website at: https://ec.europa.eu/eurostat/web/enlargement-countries/publications/reports and https://ec.europa.eu/eurostat/web/european-neighbourhood-policy/publications/reports

Source: Eurostat's website on International cooperation

In Africa, peer reviews are one of the actions aimed at strengthening NSIs and NSS, specifically under Strategic objectives 3.1 'Reform and enhance national statistical systems' and 3.2 'Develop sustainable statistics capacity' of the Updated Strategy for the Harmonisation of Statistics 2017-2026 (SHaSA 2) (see section B.1.2.3). The target is to have performed peer reviews of the NSS of 25 countries until 2018, 35 countries in 2020 and 54 countries in 2026. PARIS21 facilitated peer reviews for the NSS in a number of African countries since 2005, assessing the capacity to produce, disseminate and use official statistics. Within the framework of the Pan African Statistics Program (PAS), financed by the Europe-Africa partnership and with practical support by Eurostat, the methodology has been renewed and further developed, but still relies on the African Charter on Statistics as reference and benchmark throughout the process, together with the UN's Fundamental Principles of Official Statistics (see section B.2.1). The practical approach is based on Eurostat's 'Snapshot' tool for evaluation of statistical systems (see Box 5.2). Eurostat has also produced a leaflet presenting the Methodology for Peer reviews of National Statistical Institutes and National Statistical Systems in African countries. It should be noted that this process was mutually beneficial; the Snapshot methodology could be further developed and improved through the experiences gathered in the process of the peer reviews of African NSIs and NSS.

To find out more…

- United Nations Statistics Division: Handbook of Statistical Organization, 3rd edition (2003) (at the time of writing (2021), an updated edition called 'Handbook on Management and Organization of National Statistical Systems' is in provisional draft version 2.2)
- PARIS21 Task Team Statistical Capacity Building Indicators: "Statistical Capacity Building Indicators - Final report" (2002)
- World Bank: Statistical Capacity Indicator and Statistical Capacity Indicator Dashboard
- IMF: Extended General Data Dissemination System (e-GDDS) (2015) and Data Quality Assessment Framework (DQAF) (2012)
- Eurostat and the European Statistical System: Quality Assurance Framework of the European Statistical System (version 2.0) (2019)
- Eurostat: Monitoring of implementation in the ESS of the revised European statistics Code of Practice, EU candidate countries and potential candidates: Peer reviews, light peer reviews, sector reviews and adapted global assessments and European Neighbourhood Policy (ENP) countries: Global assessment reports, light peer reviews and sector reviews
- African Union and Eurostat: Peer reviews of National Statistical Institutes and National Statistical Systems in African countries — An outline of the methodology (leaflet, 2017); Pan African Statistics Programme: final training on the Snapshot tool (2017)
- Pan-African Statistics Programme (PAS): Peer reviews of NSIs/NSSs in African countries: proposed methodology (draft, 2016)
- Eurostat: Snapshot – A user-friendly tool to assess the strengths and weaknesses of National Statistical Systems (2014)

C.5.3. The concept of quality in statistics

C.5.3.1. THE KEY QUALITY CONCEPTS IN STATISTICS

Internationally adopted quality frameworks for statistics are used for assessing the quality of the data and the procedures that are used in their production. They are practical applications of the principles of statistics, notably the ***United Nations Fundamental Principles of Official Statistics***, which were explored in section B.2.1. As such, all statistics quality frameworks cover the various dimensions of quality. Quality frameworks consider all steps of the statistical process by which data are collected, transformed and disseminated. They therefore refer to the quality of the:

- overall organisation of the process;
- input data;
- data collection, transformation and dissemination operations;
- products (output data).

The approach of the European Statistical System comprises the institutional environment, statistical process and statistical outputs, in line with European Statistics Code of Practice referred to in chapter B.2:

Institutional environment

Institutional and organisational factors have a significant influence on the effectiveness and credibility of a statistical authority producing and disseminating European Statistics. The relevant issues are professional independence, coordination and cooperation, mandate for data collection and access to data, adequacy of resources, commitment to quality, statistical confidentiality and data protection, impartiality and objectivity.

Statistical processes

European and other international standards, guidelines and good practices must be fully observed in the processes used by the statistical authorities to organise, collect, process and disseminate official statistics. The credibility of the statistics is enhanced by a reputation for good management and efficiency. The relevant aspects are sound methodology, appropriate statistical procedures, non-excessive burden on respondents and cost effectiveness.

Statistical outputs

Available statistics must meet users' needs. Statistics comply with the European quality standards and serve the needs of European institutions, governments, research institutions, business concerns and the public generally. The important issues concern the extent to which the statistics are relevant, accurate and reliable, timely, coherent, comparable across regions and countries, and readily accessible by users. These dimensions can be specified as follows:

1 - Relevance refers to the degree to which statistics meet current and potential users' needs for information,

- relevance to current policy questions,
- disaggregation, especially geographic, to an appropriate level, and
- representative coverage

2 – Accuracy and reliability refers to the closeness of estimates to the unknown true values

- survey quality: planning, execution, reporting and audit trail,
- scientific validity: employing appropriate sampling techniques; ensuring impartiality and appropriate sample size,
- respect for data confidentiality,
- explicit incorporation of a quality framework or procedure

3 - Timeliness refers to the length of time between the reference period (the event or phenomenon that the data describe) and the data release date, when data becomes available; and **Punctuality** refers to the length of time between the data release date and the target delivery date (for instance with reference to dates announced in an official release calendar, laid down by Regulations or previously agreed with partners).

4 - Comparability refers to the impact of the differences in applied concepts and measurement tools and procedures when statistics are compared between geographical areas, sectoral domains or over time; and **Coherence** refers to the adequacy of the data to be reliably combined in different ways and for various uses

- metadata standards: is the background documentation complete and publicly available?
- adherence to current international standard methodologies and nomenclatures,
- consistency within national statistics (are classifications and statistical concepts consistent from one area of statistics to another?),
- consistency with data published by various international organisations, and
- international quality comparisons and peer review.

5 - Accessibility and clarity refer to the conditions and modalities by which users can obtain, use and interpret data

- publication and dissemination methods,
- full availability of results and metadata, and
- orienting publications toward the users of statistics.

The principles of the Code of Practice represent a common quality framework for the European Statistical System. On its website, Eurostat publishes standards, handbooks and guidelines relating to quality management and quality reporting developed within the European Statistical System. The Quality Assurance Framework of the ESS (version 2.0) provides methods and tools at institutional and process level on how the Code of Practice can be further implemented. Together with the general quality management principles, the ESS statistics Code of Practice (2017) and the ESS Quality Assurance Framework (2019) constitute the common quality framework of the ESS.

Box 5.4 gives a practical example of how the Terms of Reference for a statistical capacity development action or another operation aimed at strengthening national or sector statistics can be specified in order to assure a high quality of the outcomes.

Box 5.4: Improving quality in a major statistical capacity building operation – points for the Terms of Reference

Terms of reference for a statistical capacity development action or another major statistics operation such as a large survey or census should refer to the methods to be used to ensure quality. This could be either an exposition of how quality will be addressed or a commitment to apply a specific quality methodology from the planning stage onwards. It should include a reference to the means of monitoring: self-assessment, peer review, quality assessment framework, etc.

Frequently, NSIs have limited experience in selecting, specifying or applying a quality methodology. Hence, a quality assessment is usually needed. This looks at a statistical system's capacity and outputs. It identifies key areas for improvement, e.g. statistical legislation, training and technical assistance to assist in planning and implementing quality methods could be appropriate. There should be a general commitment to applying a quality methodology.

Terms of reference to implement a quality methodology could be based on the following:

1. The statistical action will ensure quality by implementing the appropriate general or sector quality assessment framework
2. For each of the quality framework indicators, the quality report will show:
   - the indicator;
   - the current status or value of the indicator;
   - the source of this measurement;
   - the objective for this indicator and explanation for the choice of this objective;
   - the activities required to achieve this objective (within the action being planned or not);
   - the resources required to carry out the action (within the action being planned or not)

A user-friendly tool for assessing national and sector statistical systems is Eurostat's 'Snapshot' tool. The 'Snapshot' tool is based on the extensively tested and refined statistical quality framework developed by the European Statistical System. It also draws on the regional quality management frameworks developed in Africa and Latin America.

Sources: International Monetary Fund's Data Quality Assessment Framework (DQAF) and Eurostat's Snapshot tool.

C.5.3.2 EXAMINING DATA QUALITY

The assessment of a country's statistics may be triggered by a realisation that at least some of the data required to carry out the European Commission's cooperation programme with its partner is non-existent, late, inaccurate, inappropriate to the needs and / or not comparable with the country's other data or relevant international classifications.

The first questions to be asked are: what is the extent of the statistics problem, who has observed them, what analyses have been made and what plans prepared?

Information sources about data quality include existing analyses of the data from a number of sources, such as:

- a medium term statistics strategy such as an NSDS (explained in section C.5.4) by national or international consultants;
- the Commission's experience in development cooperation with its partners;
- international sources.

Assessments of data quality, sectoral and global, should be summarised in the analysis of the national development policies. These **should identify when the available statistics are unable to support analysis** of the social, economic or environmental situation in question.

There are a number of tools available for assessing data quality. Eurostat's 'Snapshot' tool, which has been extensively used in practice, was presented in Box 5.2, and Eurostat's peer review approach in Box 5.3. One tool provided by the IMF is the Enhanced General Data Dissemination System (e-GDDS), presented in Box 5.5. Another is the United Nations Statistics Division's National Quality Assurance Framework (NQAF), presented in Box 5.6. Further relevant quality frameworks for statistics are the Quality Framework for OECD Statistical Activities and the International Organization for Standardization's ISO 9000 family of quality management standards.

Box 5.5: IMF: Enhanced General Data Dissemination System (e-GDDS)

The purposes of the IMF's Enhanced General Data Dissemination System (e-GDDS) are to:

- encourage member countries to improve data quality;
- provide a framework for evaluating needs for data improvement and setting priorities in this respect; and
- guide member countries in the dissemination to the public of comprehensive, timely, accessible, and reliable economic, financial, and socio-demographic statistics

The e-GDDS framework is intended to provide guidance for the overall development of macroeconomic, financial, and socio-demographic data. The framework takes into account, across a broad range of countries, the diversity of their economies and the developmental requirements of many of their statistical systems.

Member countries of the IMF voluntarily elect to participate in the e-GDDS. Participants are requested to update their metadata if and when significant changes in their statistical practices or plans for improvement take place, but at least once a year.

With regard to comprehensive frameworks, the objective of the e-GDDS is to encourage the production and dissemination of complete sets of data with widest coverage, based on international methodologies. The emphasis is placed on complete data sets rather than on specific indicators.

The e-GDDS framework is built around four dimensions:

- data characteristics;
- quality;
- access;
- integrity.

The data dimension includes coverage, periodicity (i.e. the frequency of compilation), and timeliness (i.e. the speed of dissemination). The data dimension in the GDDS is closely linked to the quality dimension, within which plans for improving data quality form an integral part.

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The focus for the access and integrity dimensions is on the development of policies and practices in line with the objectives of dissemination of readily accessible and reliable data. Information on access and integrity of the data and, especially, the agencies that produce and disseminate them, is essential in building confidence of the user community in official statistics.

Among the principal potential beneficiaries of the e-GDDS are national statistical agencies, the users of data, and the providers of technical assistance. National statistical agencies can benefit by adopting the e-GDDS framework to systematically evaluate and improve their statistical systems in a comprehensive and prioritized way, across a broad range of data and statistical agencies.

Source: IMF's overview webpage on e-GDDS

Box 5.6: IMF: Data Quality Assessment Framework (DQAF)

The IMF Data Quality Assessment Framework (DQAF) identifies quality-related features of governance of statistical systems, statistical processes, and statistical products. It is used for comprehensive assessments of countries' data quality. The DQAF is rooted in the UN Fundamental Principles of Official Statistics and grew out of the Special Data Dissemination Standard (SDDS) and General Data Dissemination System (GDDS), the IMF's initiatives on data dissemination. The DQAF incorporates their good practices and is the result of intensive consultations.

The DQAF provides a structure for assessing existing practices against best practices, including internationally accepted methodologies.

The DQAF's coverage of governance, processes, and products is organized around a set of prerequisites and five dimensions of data quality—assurances of integrity, methodological soundness, accuracy and reliability, serviceability, and accessibility. For each dimension, the DQAF identifies 3-5 elements of good practice, and for each element, several relevant indicators. Further, in a cascading structure, more detail and more concreteness tailored to the dataset are provided by focal issues and key points.

The generic DQAF serves as an umbrella for seven dataset-specific DQAF frameworks: National accounts statistics; Consumer price index; Producer price index; Government finance statistics; Monetary statistics; Balance of payments statistics, and; External debt statistics. In addition, a DQAF module on household income in a poverty context has been developed in collaboration with the World Bank.

Source: IMF's overview webpage on DQAF

Box 5.7: United Nations Statistics Division: National Quality Assessment Framework (NQAF)

The United Nations National Quality Assurance Frameworks Manual for Official Statistics (UN NQAF Manual) and its recommendations guides countries in the implementation of a national quality assurance framework, including for new data sources, new data providers and for data and statistics of the Sustainable Development Goal indicators.

In recent years, new data sources, data providers and statistics producers have emerged, fuelled by technological advances and new demands for detailed and timely data for policy-making in the context of the 2030 Agenda for Sustainable Development. The NQAF Manual responds to the challenges and opportunities for official statistics posed by the new data ecosystem, which is characterized by the emergence of new data sources, new data providers and statistics producers.

The NQAF Manual and its recommendations are directed at assuring the quality of official statistics throughout the entire national statistical system, which consists of the national statistical office and other producers of a country's official statistics. It also provides guidance for engagement with statistics producers and data providers outside of the NSS that cooperate with members of the NSS in the production of official statistics. For example, the Manual addresses quality assurance in the use of different data sources and SDG indicator data and statistics.

The NQAF quality principles and associated requirements consist of four levels, ranging from overarching institutional and cross-institutional management and statistical production processes to the outputs:

Level A: Managing the statistical system;

Level B: Managing the institutional environment;

Level C: Managing statistical processes;

Level D: Managing statistical outputs.

Each level contains a concise set of principles and requirements to guarantee quality in that aspect of quality assurance. These requirements are vital indicators that, when met, will ensure that provisions have been made to assure quality. In total, the NQAF comprises 19 quality principles and their associated requirements. The NQAF Manual also presents 14 recommendations for quality assurance that are mainly based on the UN Fundamental Principles of Official Statistics, identifying and clearly spelling out the responsibilities of the members of the NSS for assuring the quality of data and statistics.

Source: United Nations: United Nations National Quality Assurance Frameworks Manual for Official Statistics (UN NQAF Manual) (2019)

Various international resources support the wider evaluation of the quality of a country's statistics. A description of most NSSs can be found in the database 'Country profiles of statistical systems' on the United Nations Statistics Division's website. This database covers the history of the NSS, the legal basis for the statistical activities, the NSI and other data producers. It may contain the NSS's or NSI's activity report, the most recent data and publications. As such, it gives the basic structural information on the NSS, as discussed in section B.2.3.

For countries benefiting from Heavily Indebted Poor Countries Initiative (HIPC), the Poverty Reduction Strategy Paper (PRSP) and annual reports provide information on the timeliness of the strategy monitoring indicators that are appended to the annual reports. They can also contain information about the relevance of indicators and on the difficulties encountered in their preparation. The World Bank and IMF joint notes and reports on the PRS's evaluation (IMF and IDA Joint Staff Advisory note and Joint Staff Assessment of the PRS annual report) frequently offer elements for estimating an NSS' capacity to provide data for the follow-up of the PRS implementation.

Another source of information on the status of national data is the IMF's National Summary Data Pages (NSDPs). NSDP is a "data portal" for countries participating in e-GDDS (or SDDS or SDDSplus), and gives access to data, metadata and links to online datasets for all available categories for a country, even if these categories are compiled by multiple statistical agencies. It provides detailed, systematic information about the availability and quality of national mostly economic data, as well as about plans for improvement. This is an important international source of information on economic data quality.

On the World Bank's Statistical Capacity Indicator website, there is a Statistical Capacity Indicator Dashboard that displays tables and graphs with the latest data and trends on statistical capacity. In addition, for each country there is a Statistical Capacity Country Profile.

National self-assessment reports on the SDGs will typically contain analyses, many of high quality, on social data availability and quality.

The NSS as a whole may already have been analysed, perhaps as part of the preparation of a statistical strategy or plan, such as a National Strategy for the Development of Statistics (NSDS). The existence of an effective strategy or plan could reflect national government understanding of the role of statistics as a policy management tool. The PARIS21 webpage provides information on country NSDSs and other strategy papers, legal texts regarding statistics and other information related to NSS organisation. PARIS21 also coordinates and disseminates information collection concerning development assistance support for statistics. The application of NSDSs and other strategic analyses is discussed further in section C.6.1.

A clear picture may emerge from this investigation of the availability and quality of statistics in a sector or in the statistics system as a whole. The set of observations obtained can serve as a basis for discussion with the partner country about the need for a strategic development of institutional statistical capacities and the development of an NSDS.

C.5.3.3 QUALITY AND THE MODERNISATION OF OFFICIAL STATISTICS

In the past few decades, the processing, production and consumption of information has changed at a rapid pace. This applies in particular to statistical information. At the same time, there has been a large decrease in the resources allocated to official statistics. As a response to these developments, statistical offices have been looking for ways to make their practices and processes more efficient and flexible.

The modernisation of official statistics is a relevant approach to meet these new challenges. , to provide an articulated path/framework to adapt statistical work to the new context and to be more reactive to changes. The research was launched by a community of statisticians, involving key actors such as Eurostat, the OECD and UNECE, but also national statistical organizations. There was a clear understanding among statisticians that the new challenges affected the whole community of official statistics and that pooling investments and efforts would help identifying the best practices and developing the most adequate answers.

The initial group of statisticians was progressively joined by others and, in 2015, organised itself under the 'High Level Group for the Modernisation of Official Statistics' (HLG-MOS), directly attached to the Conference of European Statisticians (CES). The group developed regular work programmes that mainly aimed at standardising statistical work in order to ease exchanges and to allow a mutually beneficial cross-fertilisation among statistical organisations. The HLG-MOS works on Human resources, organisational frameworks and evaluation; Statistical production, methods and information technology; Data collection and data sources; Dissemination and communication, and; Standards and metadata. It is organised around four working groups: The group for supporting standards (develop, promote and support the implementation of statistics standards), the group on sharing tools (promotion of services sharing), the group on capabilities and communication (change management, building competencies) and the "blue skies thinking network" ("ideas factory").

The working group on standards developed several and inter-related tools that define today the way statisticians all over the world envisage their work and the collaboration among them and with partners in the statistical system.

First, there was a common acknowledgement that the way statisticians looked at the organisation of the statistical work had to be re-assessed: the traditional compartmentalization into sectors or topics didn't reflect a reality where operations and processes could be similarly design and where sectors could learn from each other for the good of the whole system. There are different steps/phases that need to be followed to produce official statistics and defining a standard methodology for these steps and their sub-processes (further

level of detail) would greatly help the coordination within and among statistical organisations.

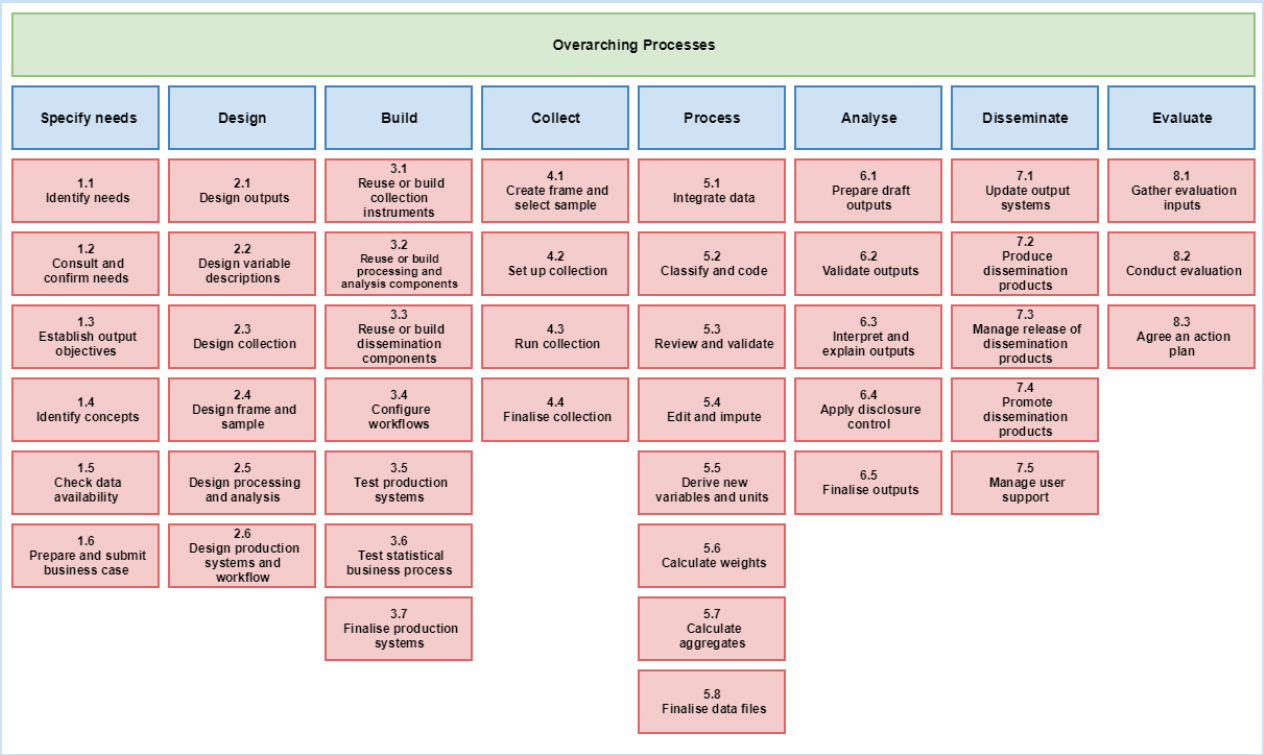
Building on prior reflections and initiatives (in particular the "statistical value chain"), the methodology followed would aim at illustrating the statistical production process. The 'Introduction' to the GSBPM specification states that "The Generic Statistical Business Process Model (GSBPM) describes and defines the set of business processes needed to produce official statistics. It provides a standard framework and harmonised terminology to help statistical organisations to modernise their statistical production processes, as well as to share methods and components." An initial version of the tool was circulated among users in 2009 and was later revised/refreshed (Version 4.0 in 2013 and version 5.1 in 2019 — as the objective is standardisation and exchange, the tool is only revised (refreshed) at long intervals (5 years) and at the margin, priority being given to continuity). Today more than 50 statistical organisations around the world have implemented the tool and contribute to its promotion and regular improvement.

The GSBPM model is illustrated in Figure 5.1 below. It comprises three levels:

- Level 0, the statistical business processes. This level covers Quality management; Metadata management; Data management; Process data management; Knowledge management, and; Provider management.
- Level 1, the eight phases of the statistical business process: Specify needs; Design; Build; Collect; Process; Analyse; Disseminate, and; Evaluate.
- Level 2, the sub-processes within each phase. They a sub-processes specific for each phase; for example, the phase 'Evaluate' has three sub-processes, while the phase 'Process' has eight sub-processes.

The content of the three levels is fairly detailed in the documentation developed by the HLG-MOS.

Figure 5.1: The articulation of the three levels of the GSBPM



Source: Generic Statistical Business Process Model (GSBPM) website

The GSBPM applies to all activities undertaken by producers of official statistics, at both the national and international levels, which result in data outputs. It can be used to document any kind of statistical business process, from the more traditional survey to the administrative data acquisition or to the statistical compilation. The model should be seen as a reference (a check-list matrix) but that must be used with flexibility in order to adjust to the need of the organisation which uses it. It may cover the whole statistical work but also only concentrate on a few processes for which the organisation wants to initiate a discussion within its services or with another organisation. In addition, the analysis made through the tool is not linear and the analysis of processes may follow different paths along the sub-processes. The tool is thus useful in different ways: to manage the statistical programme of an organisation, to discuss cost and resources allocations within the organisation, to document statistical processes, to assess the quality of the work done or to share methods and practices.

Box 5.8: GSBPM implementation: Israel and Mexico

Israel and the GSBPM

The model was one of the objects of the two successive twinning projects that the ICBS implemented with Statistics Denmark (2013-2014 and 2016-2018) under EU funding. During the first project, an experimental mapping of statistical processes (GSBPM phase level) was realized that led to a growing interest for the tool by the management of the ICBS. Several staff members were then more intensively trained through courses and the participation in international meetings and workshops on the model. The second project was the occasion to translate GSBPM documentation into Hebrew, to launch a Pilot Quality audit review for 5 statistical processes using GSBPM and to adopt a quality assessment procedure for ICBS. The GSBPM was used as a management tool for the planning of the population census and to review the costs of most of the surveys carried out by ICBS.

Source: Best GSBPM practices, Israel Central Bureau of Statistics, presented by B. Attali and E. Dror at Eurostat's MEDSTAT IV training course on GSBPM in Rome, Italy, 25-27 July 2017

Mexico and statistical modernisation

The GSBPM 5.0 was approved by INEGI as a guideline for the preparation of the long-term strategic plan in May 2016. A committee was established to oversee the progress of the work and the GSBPM documentation was translated in Spanish. The local version of the tool used by INEGI covered eight phases and 44 sub process. A emphasis was put on making explicit the use of administrative registries, statistics generated in previous processes, non-traditional sources and on Including the production of both statistical and geographical Information. Today, the compliance with international quality principles is becoming standardized and explicit. Budget and costs management adopted GSBPM terminology and software applications are getting in line with GSBPM phases. The ruling of risk mitigation and assessment is adopting GSBPM as a reference. As a consequence of all the above, a gradual but profound organisational transformation has started at INEGI that will have repercussion for the whole national statistical system.

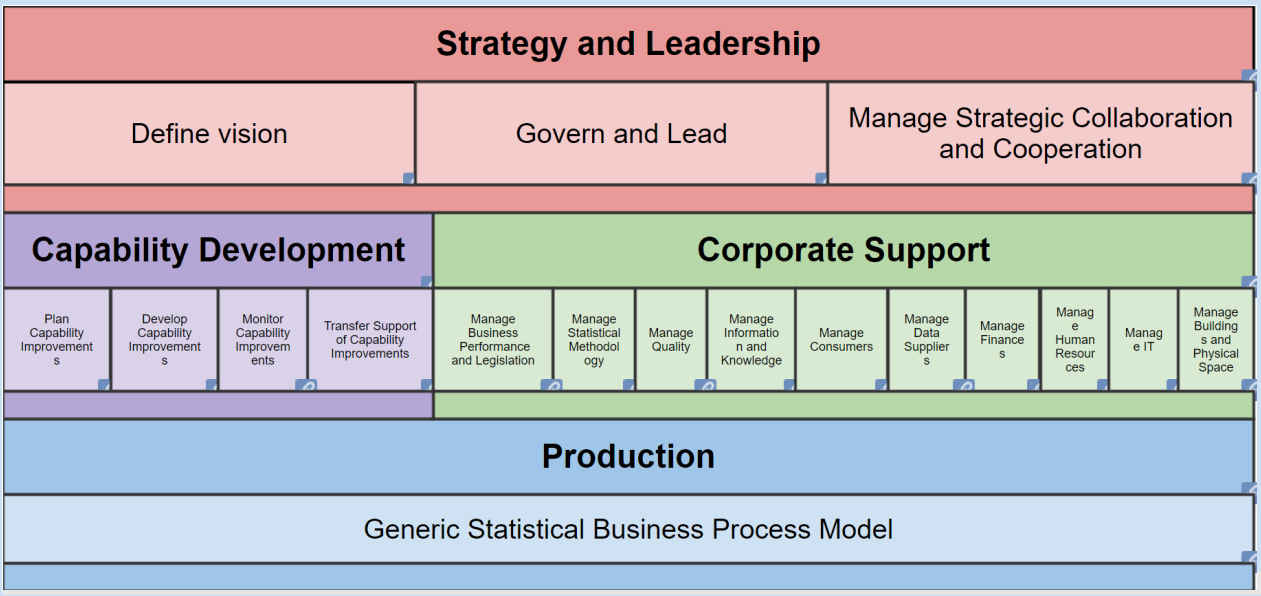
Source: Un marco para la modernización del INEGI, by J. a. Santaella, president of INEGI Mexico

With the experience acquired using GSBPM, it became obvious that a similar standardisation should be developed for the other activities of the statistical organisations and not only the ones related to the production of outputs. The HLG-MSO thus worked on a new tool that extends and complements the GSBPM. In the 'Purpose' of the GAMSO specification states that "The Generic Activity Model for Statistical Organisations (GAMSO) describes and defines the activities that take place within a typical organisation that produces official statistics. It extends and complements the GSBPM by adding additional activities needed to support statistical production." An initial version of the tool was released in 2015 and a revision was carried out in 2019 (version 1.2).

GAMSO develops around four levels that are presented in Figure 5.2 below. From bottom to top:

- The first level (Production) is already covered by the GSBPM,
- The second level covers activities that enable the organisation to undertake new activities, or to improve the efficiency of existing ones (such as research, development and innovation activities concurring to the development of capabilities). They are analysed according to four successive stages of realisation: plan capability Improvements, develop capability Improvements, monitor capability Improvements and transfer support of capability Improvements;
- The third level includes all the cross-cutting activities required by the organisation to deliver its work programme efficiently and effectively: Business Performance and Legislation, Statistical Methodology, Quality, Information and Knowledge, Consumers' management, Data Suppliers' management, Finances, Human Resources, Information Technology (IT) and Buildings and Physical Space;
- The fourth level addresses the high-level strategy of the organisation and its ability to deliver the products and the services demanded. It covers three main activities: Define Vision, Govern and Lead and Manage Strategic Collaboration and Cooperation.

Figure 5.2: The four levels of GAMSO



Box 5.9: Uses of GAMSO

Some expected uses of the GAMSO are listed below. They show that the target audience for this model will vary according to use from top management to experts:

- As a basis for resource planning within a statistical organisation;
- As a basis for the measurement of costs of producing official statistics in a way that can be compared between organisations;
- As a tool to help assess the readiness of organisations to implement different aspects of modernisation, in the context of a proposed "Modernisation Maturity Model";
- To support risk management systems;
- To support the development and implementation of enterprise architectures, including components such as capability architectures;
- To help to measure and communicate the value of statistical modernisation activities across an organisation.

Source: Generic Activity Model for Statistical Organizations (GAMSO) website

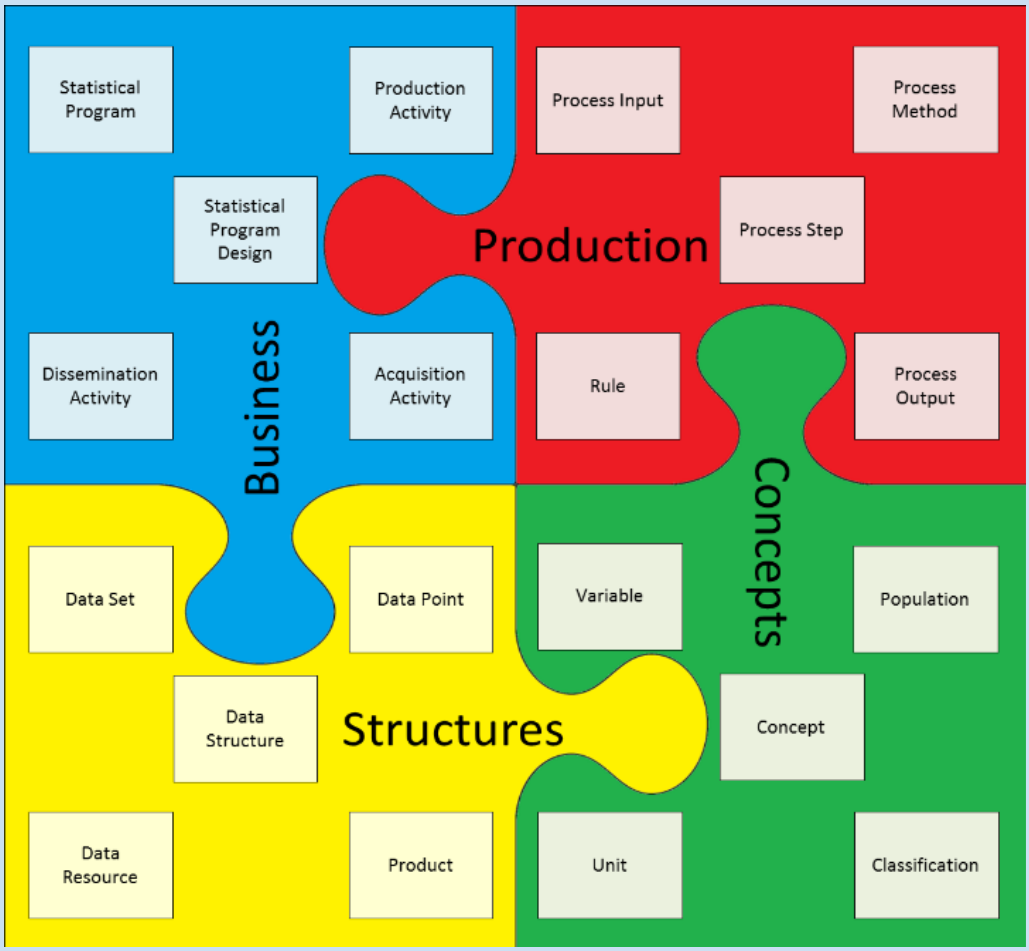
The HLG-MSO is also working on three other tools that are briefly discussed below:

- the **Generic Statistical Information Model (GSIM).** The tool is the result of a strategic approach for a general description of the definition, the management and the use of data and metadata all along the statistical production process. It was first circulated in 2011 and then revised in 2013 and 2019. The current version is version 1.2. It provides a set of standardized, consistently described information objects (using a common language), which are the inputs and outputs in the design and production of statistics. GSIM identifies around 150 information objects, which are grouped into four top-level groups as illustrated in Figure 5.3 below.

These four top-level groups are:

- Business group. It captures the designs and plans of statistical programs,
- Production group. It describes each step in the statistical process,
- Concepts group. It defines the meaning of data, providing an understanding of what the data are measuring, and
- Structures group. It describes and defines the terms used in relation to data and its structure.

Figure 5.3: The four top-level groups of GSIM



Source: Generic Statistical Information Model (GSIM) website

- The **Common Statistical Production Architecture (CSPA).** This tool was initially developed in 2015 as a reference architecture for the statistical industry, including application architecture and associated principles for the delivery of statistical services as well as technology architecture and principles (limited to the delivery of statistical services). Its aim is to contribute to a harmonized and integrated approach to service orientation within official statistics as to facilitate the sharing of experiences and to improve the relevance of the response of statistical organizations to the new challenges for statistics in the 21st century.
  The common reference is based on existing standards and tools and in particular the GSBPM, the GSIM, SDMX (Statistical Data and Metadata eXchange) and DDI (Data Documentation Initiative) thus allowing modernising national statistical organisation while keeping/improving the compliance with international standards. The strengthening of the community of statisticians, speaking the same language and sharing the same vision for the architecture of the statistical systems, may certainly help as the ESS-Net initiative led by Eurostat and some of the National statistical institutes of the European Union is progressively proving it. Recently, the HLG-MSO created a specific expert group, the CSPA Implementation Group, to foster the use of CSPA worldwide.
- **The Common Statistical Data Architecture (CSDA)**. The initial version of the tool was designed in 2017 and presented to the HLG-MOS. The need for such a tool has been generated by the fact that, more and more, statistical organizations have to mobilise data form very diverse and multiple sources, thus the need to standardised the way they are gathered and used

Implementing the models presented above, and whatever are their respective levels of complexity, may bring a lot of benefits even in countries where the statistical system is not highly developed and articulated. Investing in standardisation may greatly help in the documentation of all the processes, making easier the identification of the weaknesses and of the areas in need of improvement. Being part of the community for statistical modernisation may also open large rooms for exchange with other countries, in particular those with more developed statistical systems, and bring benefits in terms of good practices, leading to better matching the demand from the users.

To find out more…

… about quality frameworks

- European Statistical System (ESS): Quality Assurance Framework of the European Statistical System – version 2.0 (2019)
- European Statistical System (ESS): European Statistical System handbook for quality and metadata reports – 2020 edition (2020)
- UN Statistics Division: United Nations National Quality Assurance Framework (UN NQAF) and the United Nations National Quality Assurance Frameworks Manual for Official Statistics (UN NQAF Manual) (2019)
- OECD: Quality Framework for OECD Statistical Activities
- IMF: Enhanced General Data Dissemination System (e-GDDS) (2015)
- IMF: Data Quality Assessment Framework (DQAF) (2012)
- International Organization for Standardization: ISO 9000 family of quality management standards (documentation standards)

… about documentation of statistical systems, containing quality information

- UN Statistics Division: Country profiles of statistical systems
- World Bank: Statistical Capacity Indicator; Statistical Capacity Indicator Dashboard; Statistical Capacity Country Profile
- PARIS21: Statistical Capacity Monitor
- IMF: National Summary Data Pages (NSDP)
- PARIS21: Knowledge database with information on statistics systems and NSDSs
- Eurostat: EU candidate countries and potential candidates: Peer reviews, light peer reviews, sector reviews and adapted global assessments and European Neighbourhood Policy (ENP) countries: Global assessment reports, light peer reviews and sector reviews

… about quality and the modernisation of official statistics

- UNECE/CES, Eurostat and OECD 'Meeting on the Management of Statistical Information Systems (MSIS 2008): Metadata use in the statistical value chain – the Eurostat case, invited paper by G. Pongas and A. Wronski (Eurostat)'
- High-Level Group for the Modernisation of Official Statistics (HLG-MOS): working areas Human resources, organisational frameworks and evaluation; Statistical production, methods and information technology; Data collection and data sources; Dissemination and communication, and; Standards and metadata.
- Conference of European Statisticians (CES)
- Generic Statistical Business Process Model (GSBPM) (Version 5.1, January 2019)
- Generic Activity Model for Statistical Organisations (GAMSO) (Version 1.2, January 2019)
- Generic Statistical Information Model (GSIM) (Version 1.2, August 2019)
- Common Statistical Production Architecture (CSPA) (Version 2.0, 2019)
- Common Statistical Data Architecture (CSDA) (Version 2.0, 2019)
- Statistical Data and Metadata eXchange (SDMX) website; Eurostat's website on SDMX
- Data Documentation Initiative (DDI) website; IMF Factsheet on DDI
- Eurostat's ESS.VIP project 'shared SERVices': ESSNet Sharing common functionalities in ESS

C.5.4. Looking at the National Statistical System as a whole

The analysis of the national statistical system and of its data quality may have revealed a number of problems. For example it may be that no relevant data exists, or that existing data is of poor quality, out of date, or even that data exists but has not been disseminated. Any such problem justifies an intervention to strengthen the statistics in the sector concerned. Data may well be required for evidence based policy making in the sector at national level as well as to evaluate the project at European Commission level.

As underlined by the Evaluation of European Commission support for statistics in third countries 1996-2005 (2007), the effectiveness of projects that support statistics and the sustainability of their results increase when:

- interventions are anchored in the overall development strategy of the partner country.
- the projects are conceived within the global context, considering the NSS as a whole. They should be identified on the basis of the statistical situation and the information needs, thus focusing on the demand for information by users, particularly by decision-makers. Ideally, the priorities should be defined in the National Strategy for the Development of Statistics.
- activities promoting a culture of evidence-based decision-making are systematically included, throughout the design and implementation of the intervention, such as the production of material which advocates statistics. All such material should be transferred to the statistical system managers after the project for further use.
- specific measures are drawn up to involve all users and not only the staff of the NSI. This goes beyond pure information and may include specific seminars to help users understand the data and develop confidence in their accuracy, reliability and integrity.
- the focus of assistance is more on strengthening the capacity of the NSS as a whole (and not only the NSI) to regularly produce reliable basic data rather than on supporting a particular survey or study. This should then enhance the quality of statistical data and indicators.

- a policy dialogue accompanies statistical support to prepare the phasing out of the project. This should include foreseeing whether the partner government or another donor will take over the funding after the end of the intervention.
- the status of the NSS as well as the human and financial resources available are taken into consideration: statistics are not only an instrument, but form an integral part of the architecture of public services.
- the personnel that worked on the statistical project can continue and transmit their know-how to others within the NSS. The sustainability of human resources is linked with financial sustainability. Insecurity regarding longer term funding as well as delays in funding can lead to a substantial 'brain drain' from the statistical institutes to the private sector.

The need for and benefits of an integrated approach to the development of statistics, both with respect to the overall development strategies and with respect of strengthening the capacity of the statistical system as a whole, is at the heart of chapter C.6.

To find out more…

- European Commission, DG International Partnerships: Project Cycle Management Guidelines (2004)
- Evaluation of the Commission Support for Statistics in Third Countries (2007)
- PARIS21: National Strategy for the Development of Statistics (NSDS) website, including NSDS Knowledge Base containing national NSDS documents and other relevant reference documents, NSDS Status Reports, a NSDS Self-Assessment Evaluation Tool, the NSDS Guidelines and the presentation brochure 'NSDS 2.0 in a nutshell'
- PARIS21: Promoting Statistics website, including the toolkit 'Advocating for the National Strategy for the Development of Statistics'
- United Nations Statistics Division: Handbook of Statistical Organization, 3rd edition (2003) (at the time of writing (2021), an updated edition called 'Handbook on Management and Organization of National Statistical Systems' is in provisional draft version 2.2)

C.6 How to bring assistance to statistics

C.6. How to bring assistance to statistics

The chapter in brief

This chapter provides guidance at the decision phase on whether and how to give support to statistics. It discusses the relationship between statistics strategies and national development and poverty reduction strategies and analyses the development and implementation of statistics strategies. This is followed by a presentation of capacity development in statistics, including how it is related to statistical strategy documents and practical considerations.

Having looked at what is to be done, the chapter then moves on to examine in general how statistics actions should be carried out. The issues of coordination at various levels are addressed: who can do what and what needs to be done to ensure coherence and eliminate duplication?

C.6.1. Statistical strategy

C.6.1.1. WHY A STATISTICAL STRATEGY?

The aim of any statistics intervention is to support the collection and dissemination of statistics that inform development policy. National development policies are usually integrated in a strategic framework, such as a national development plan or a poverty reduction strategy. Informing national and sector development strategies through assessment frameworks to monitor progress has been a central commitment since the adoption of the Paris Declaration on Aid Effectiveness in 2005. The assessment frameworks include performance indicators that need to be coherent between policy sectors and consistent over time. These performance indicators are largely based on publicly available statistics, which must be coherent in the same way. A policy level strategy is needed to ensure that quality statistics are disseminated regularly and are attuned to policy requirements, are affordable, are comparable over time and are consistent between sectors.

A statistical strategy is expected to provide guidelines to strengthen the statistical capacity of the National Statistics System. It therefore needs to show which statistics will be collected and published and how this will be implemented. It also needs to identify the financial, human and technical resources that will be available to the NSS. It needs to analyse the constraints the NSS faces: issues of the legal framework; budget and finance; institutional coordination; physical resources; and human resources – staff numbers, skills and commitment. Similarly, it needs to address how the NSS will publish quality statistics (see section C.5.1. for analysis of quality in statistics).

The core element of the statistics strategy is its vision of the medium-term objectives of the statistics system: which statistics will be produced, how and with which resources, and the links of these statistics with the demand for data to monitor policy progress. An action plan, often covering a five- year period, which demonstrates how the strategy will be fulfilled, is generally part of the strategy. The role of the statistics strategy in informing national policies as well as the need for commitment of resources means that the statistics strategy is an explicitly political document and thus requires authorisation and active participation from decision makers.

In order to be effective, statistics strategies should be based on and consistent with national strategies and planning; the national budget, poverty reduction strategy and sector policy monitoring frameworks should be seen as the starting points for defining both the minimum indicator set and the estimated budget for statistics. This will enable statisticians to be exposed to concrete examples of how data are needed and used by policy makers and will ensure that strategies are owned by both statisticians and users of statistics.

Since staff numbers, skills and motivation are the key elements in producing statistics and salaries are the largest cost of producing statistics, a good statistics strategy will include a clear, detailed description of the human resources requirements.

Box 6.1: Action points for statistics strategies

- Statistics strategies must be demand-driven, moderate and realistic and must build on existing processes;
- Statistics strategies should take a realistic approach to results-oriented management that focus on key indicators and take into account limited national capacity and resources;
- Strategies should focus and harmonise donor support on country statistics priorities;
- Implementation of strategies should be monitored.

C.6.1.2. NATIONAL STRATEGIES FOR DEVELOPMENT OF STATISTICS

The most common methodology for developing a statistics strategy is the National Strategies for the Development of Statistics (NSDS), supported by the PARIS21 consortium. The particular strength of this methodology is its recognition that the statistics strategy is a policy document. Advocacy at the political level plays a prime role in PARIS21's approach.

The NSDS is a planning approach for the strategy elaboration in order to develop capacity to produce, disseminate and mainstream the use of statistics. It is in line with a country's national development plan and other international and regional data requirements and guided by the principles of inclusiveness, transparency, and accountability.

The NSDS normally covers a five- to ten-year planning period, ideally coinciding with the planning period of the national development plan. The NSDS should provide the country with a strategic vision for developing its statistical capacity across the whole national statistical system (NSS). The NSDS process follows a results-based, stage-phase-step approach in designing the strategy. Through its inclusive approach, it helps in enabling collaboration and coordination between stakeholders. After the creation of an NSDS action plan, evaluation reports are used to assess the status and progress of the country's NSDS.

Box 6.2: An effective National Strategy for the Development of Statistics ...

- has high-level political support;
- is mainstreamed within national development policy processes, building on what is already available;
- is the output of a nationally led, nationally owned and inclusive participatory process that draws on international standards, recommendations and experience;
- provides the basis for the sustainable development of statistics with quality "fit for purpose";
- assesses the current status of the national statistical system and provides a vision and a strategic plan for national statistics;
- sets out an integrated statistical development programme that is flexible enough to cope with change;
- outlines the financing requirements, but is realistic about resource needs;
- serves as a coherent framework for international support for statistical development.

Source: Managing for Development Results "Statistics: Better Data for Better Results" (2007)

Box 6.3: Why is there a need for a National Strategy for the Development of Statistics?

- The National Statistical System (NSS) faces increasing data demands from the National Development Plan in addition to regional and international agendas. This increase has created a data-ecosystem transcending the NSS and expanding the number of data producers and users. The NSDS provides leverage to overcome these challenges.
- Policy makers need statistics for evidence-based decision-making. Indeed, official statistics provide a clear picture of the country's strengths and challenges. The NSDS represents a tool in order to organise and coordinate the statistics value chain to prepare, monitor and evaluate a National Development Plan as well as other policies. The NSDS Guidelines can help them to understand the process.
- Bilateral and multilateral assistance organisations need comprehensive and clear information on the NSSs regarding their specific challenges, goals and budget in order to prioritize their funding and their technical support. The NSDS informs them on the priority areas for partnership and collaboration in capacity development and resource mobilization for official statistics.
- Other data producers in the data ecosystem need better coordination in order to avoid duplications of work and contradictions in concepts and definitions. The new data producers underscore emerging issues in terms of new data sources (Big Data, Citizen-Generated Data, Geospatial data etc.), procedures and methods (privacy, ethics, standards) and skills. The NSDS responds to the data production ecosystem by offering a producer-producer dialogue. The process brings all stakeholders together and allows a better coordination and planning of the production itself as well as its underlying issues.
- Other data users (citizens, civil society, academia and media) need official statistics for different purposes. On the one hand, the NSDS process constitutes a platform for them to voice their needs and concerns through a user-producer dialogue. On the other hand, the final NSDS contains all the information on new and improved data as well as statistical products and services to be expected. These guidelines will help them understand this process.

Source: PARIS21: NSDS Guidelines 3.0

The timeline for the preparation of the NSDS varies across countries and regions. It depends on management and technical capacity, experience and commitment of the national statistics office to coordinate and motivate stakeholder participation and support, and the current policy plan within the development outlook of the country. In practice, based on experiences in a large number of countries over recent decades, the NSDS process from preparation, consultation, and validation to approval and endorsement of the NSDS strategic framework and action plans take on average up to 6 months in Small Island developing states, 6-12 months in Asia, and 6-18 months in Africa.

It is vital that the NSDS is deeply rooted in the institution(s) involved. It is important that all institutions and structures with an interest in the statistical strategy participate in its elaboration, creating a common ownership of the NSDS and thus increasing commitment to the strategy. The development should be in the hands of the members of the National Statistics System, operating under active political direction and support. When external consultants support the design of the NSDS, it is important to ensure that the strategy remains rooted in the national demands for published statistics and the perceptions and possibilities of the NSS, as well as maintaining political backing. It is important that the NSDS is written in such a way that the people who will be responsible for its implementation can relate to it.

The PARIS21 documentation clearly states that there is no uniform template for an NSDS and therefore there cannot be a uniform set of terms of reference for its development. PARIS21 developed the first NSDS Guidelines in 2004. Since 2014, PARIS21 updates the NSDS Guidelines annually; thus, for the most recent version, please consult the PARIS21 website: https://new.nsdsguidelines.paris21.org/.

Box 6.4: The NSDS Lifecycle

Stage	Phase	Step
A. Preliminary stage	1. Engaging stakeholders	1.1. Policy document
		1.2. NSDS Roadmap
		1.3. Advocacy programme and toolkit
	2. Preparing	2.1. Appoint teams
		2.2. Launch NSDS development process
		2.3. Organise NSDS training workshop
B. Design stage	3. Assessing the NSS	3.1. Assess NSS capacity
		3.2. Assess output & services
		3.3. Assess data needs
		3.4. Prepare & validate NSS report
	4. Envisioning & identifying strategic goals	4.1. Develop vision, mission & values
		4.2. Identify goals & strategies
		4.3. Validate the NSDS strategic framework
	5. Elaborating action plans	5.1. Preparation & costing
		5.2. Elaborate funding strategy
		5.3. Evaluate risks & prepare strategy
		5.4. Design the M&E framework
		5.5. Prepare & validate the NSDS document
C. Deployment stage	6. Implementing & monitoring	6.1. Disseminate NSDS document
		6.2. Mobilise & implement NSDS
		6.3. Implement NSDS action plans
		6.4. Monitor and report on progress
		6.5. Update & validate
		6.6. Conduct mid-term review
		6.7. Revise goals, plans & budget
	7. Evaluating	7.1. Prepare final evaluation
		7.2. Conduct final evaluation
		7.3. Evaluation approval & dissemination

Source: PARIS21's NSDS Guidelines 3.0 – NSDS Lifecycle

A key quality action is to let the NSDS be reviewed by independent peers. Not only are the independent peers ideally placed to critically assess presumptions and priorities, they are also in a position to bring in their experience and fresh views and ideas to the national NSDS process. PARIS21 produces methodological guidance on strategic planning and assist countries in finding solutions to obstacles. This includes helping countries setting up peer reviews of their NSDS, giving the opportunity to get an independent view and assessment of the NSDS and sharing experiences in strategic plan development and follow-up of advanced countries.

Peer reviewing is a central part in the quality work of the European Statistical System, where Member States' compliance with the ESS Code of Practice is reviewed. Indeed, through the Pan-African Statistical Programme (PAS), Eurostat has supported the African Union in developing the methodology and approach for peer reviews of African NSIs and NSSs, as well as in the implementation of the peer reviews.

Box 6.5: NSDS status in International Development Association (IDA) countries and Lower Middle Income Countries (as of June 2021)

	Currently implementing a strategy	Currently designing a strategy or awaiting adoption	Strategy expired or absent but currently planning an NSDS	Strategy expired or absent and not planning one	TOTAL
Africa	28	5	1	6	40
Asia and Pacific	17	1	4	3	25
Eastern Europe	1	0	0	0	1
Latin America and Caribbean	0	1	5	2	8
TOTAL	**46**	**7**	**10**	**11**	**74**

Source: PARIS21's NSDS Status Reports (June 2021)

To find out more…

about National Strategies for the Development of Statistics:

- PARIS21: Guidelines for National Strategy for the Development of Statistics (NSDS) (web version — updated annually)
- PARIS21: NSDS documents and examples
- NSDS Status Reports
- PARIS21: Guide to Drafting a Roadmap for Designing the National Strategy for the Development of Statistics – key summary document (2005)
- PARIS21: Guidelines for Developing Statistical Capacity – A Roadmap for Capacity Development (2020)

about peer reviews on National Statistical institutes and National Statistical Systems:

- European Statistical System: Monitoring implementation of the ESS Code of Practice — peer reviews
- Pan-African Statistics Programme (PAS): Training on the African version of the Snapshot tool for assessing the quality of national statistics systems (2017)
- Pan-African Statistics Programme (PAS): Proposed methodology for peer reviews on NSIs/NSSs in African countries (2016)
- Eurostat and African Union: Peer reviews of National Statistical Institutes and National Statistical Systems in African countries, leaflet (2017)
- Mohamedou, E., Baredes, B., Tejada, G., Matthiessen, J.: Improving national statistical systems: The role of peer reviews, PARIS21 Discussion Paper No. 16 (2019)

C.6.2. Capacity development in statistics

C.6.2.1. WHAT IS CAPACITY IN STATISTICS?

In the European Commission – DG International Partnerships (EuropeAid's) concept paper 'Institutional Assessment and Capacity Development: Why, what and how?' (2005), capacity is defined as:

> *'Capacity can be defined as the ability to perform tasks and produce outputs, to define and solve problems, and make informed choices.'*

The OECD / DAC Task Force on Capacity Development (2004) defined capacity as:

> *'Capacity is the ability of people, organisations/institutions and society as a whole to successfully manage their affairs. Capacity development is the process of unleashing, conserving, creating, strengthening, adapting and maintaining capacity over time.'*

A country's statistical capacity can be defined as the ability of statistical producers to fulfil their mission of collection and dissemination of reliable and up-to-date statistics that meet users' needs. Statistical capacity development is the process whereby these bodies create and strengthen their statistical capacity. This process can be summarised as 'human', 'technical' and 'organisational' capacity development. Training is an important aspect of capacity development, given the importance of technical and managerial knowledge in organising statistics operations.

Another vital aspect is the appropriate information and communication technology (ICT), both with respect to the hardware and the required software applications. Furthermore, in order for a statistical process to be efficient and sustainable, the necessary organisational framework must be in place; this involves not only the legal framework, but also the support of and cooperation with other actors, such as line ministries, holders of administrative information, business federations and key enterprises, key statistics users, and so forth.

Box 6.6: PARIS21: What capacity do we need?

"The understanding that good-quality statistics depend upon an infrastructure of properly financed organisations, an effective legal and political mandate and well-trained and managed technical and professional people is well known and not new. In the past though, efforts at developing statistical capacity have tended to focus mostly on technical concerns, such as survey design and data management. Where both financial and technical support has been provided, it has often emphasised data production, particularly in areas that are seen as important by development partners. A new approach is needed.

One problem affecting our delivery of capacity support is the narrow way in which the capacity of national statistical systems is assessed. Statistical assessments are traditionally focused on skills for statistical production processes, quality assurance and codes of conduct; or dimensions such as legislation, principles and institutional frameworks. Yet technological change, the emergence of new data providers and users, and the increasing complexity of the data ecosystem are calling for new skills and organisational practices. Soft skills, such as management and leadership, are increasingly important across statistical organisations, and we need to do better at understanding the incentives and political dimensions behind capacity delivery. Understanding the motivation for partners and beneficiaries to participate can make programmes more relevant and sustainable."

Source: PARIS21: Statistical Capacity Development Outlook 2019

Capacity development 4.0

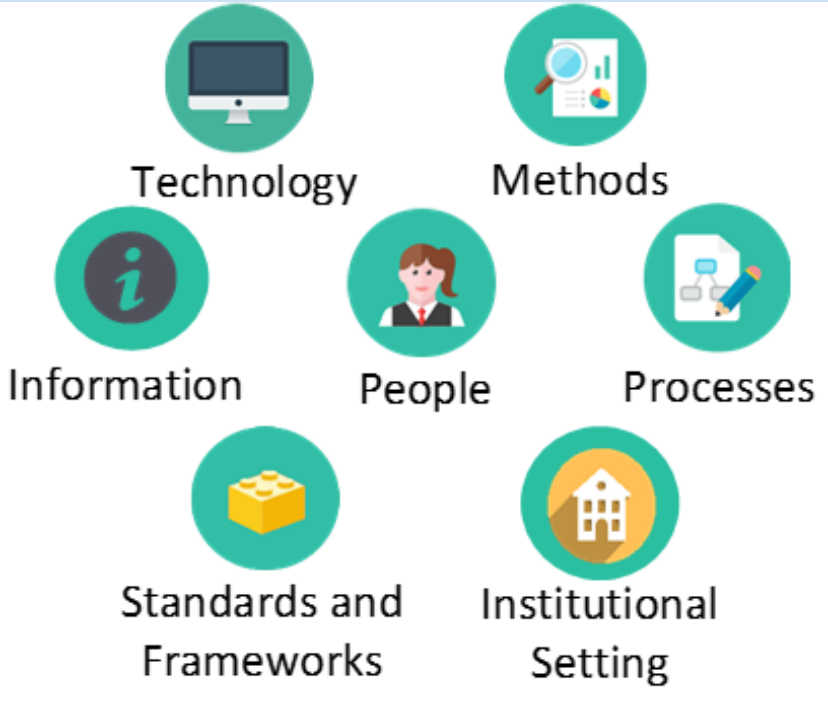
The new eco-system for statistics that is emerging from the rapid changes in the way information (including statistical information) is produced, exchanged and used, brought new concerns about the ability of statistical organisations to match the requirements and demands from their customers in terms of content, format and media. The measurement of the SDGs is very representative of the changes in the eco-system for statistics: The related impact it has, particularly on the way statistics are gathered (multiple sources, some of them non-statistical) and analysed/shared (multiple partnerships and multiple levels of analysis), generated new needs for statistical capacity development that translated into a new and more comprehensive approach based around the notion of "capabilities".

In 2018, the 'UNECE Statistical capacity development strategy' used a quote from the Open Group Architecture Framework v9.1 to define the concept of 'capability' in connection with statistical organisations:

> *"A capability is defined as the "ability that an organisation, person, or system possesses - capabilities typically require a combination of organisation, people, processes, and technology to achieve". Capabilities are things that an organisation does, or needs to do."*

This new approach covers seven dimensions that are presented in the box below. To build a capability requires to address several of these dimensions while some may not be relevant in all cases. From this analysis, statistical organisations such as the UNECE and PARIS21 developed frameworks to help countries assess and improve their capabilities. These frameworks usually start with an assessment of the statistical system in order to identify strengths and weaknesses and to target efficiently support and reinforcement.

Box 6.7: UNECE: Developing capabilities



In the past, UNECE statistical capacity development has focused mainly on providing training workshops. These were mostly related to specific subject-matter domains. In this way, the focus was more on people than on the organisation. In view of the new challenges identified above, and particularly the demands related to producing statistics for SDGs, a new, more holistic approach is needed. This requires a strategy that considers all aspects of the organisation, and targets support and development where they are most needed.

One reason for not just focusing on training people is that some statistical organisations struggle to pay a competitive salary, and hence have a high staff turnover. Training people can therefore have a limited impact. Whilst training of people will still be needed, it should be undertaken in combination with ensuring that the organisation is sufficiently equipped in terms of methods, technology, processes, information and standards, whilst ensuring a suitable institutional framework is in place.

Source: UNECE Statistical capacity development strategy (2018)

Strategy and priorities for capacity development

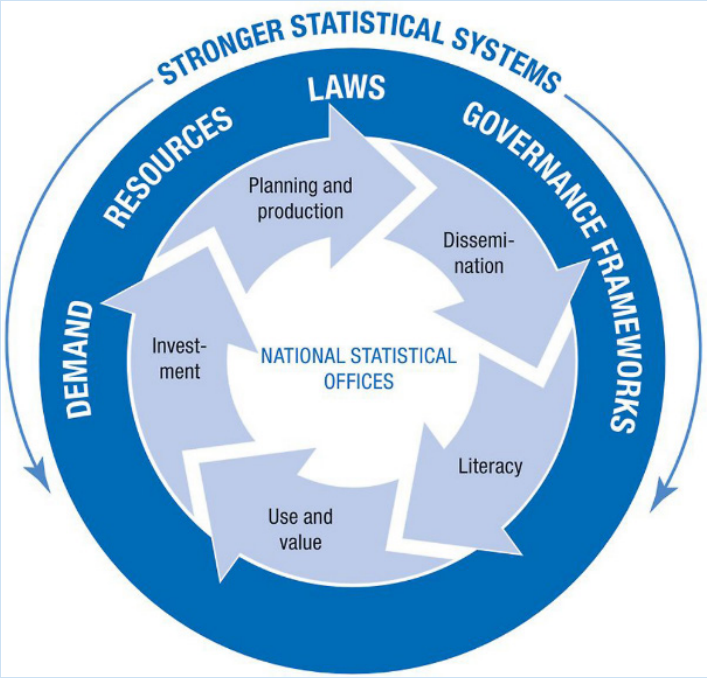
In 215, PARIS21 organised a quick survey with NSOs in Africa, Latin America and Asia asking questions related to the priorities for capacity development. Questionnaires were sent to investigators from National Statistical Offices; most of this analysis was based on a sample of 25 NSOs. This exercise, even if not exhaustive, allowed to identify key issues of great concern for the statistical organisations interviewed. Among these concerns were the following: the poor coordination within the national statistical systems (including both the coordination among the data providers and the coordination with the users), the low level of investment in people and skills development (to master new issues, tools and practices), the weaknesses in the area of data dissemination and use, the limited use of the power of ICT, the limited capacities in the design and management of the statistical process and setbacks in the delivery of Aid in statistics (generally aligned with national priorities, but is not always delivered in line with a system-wide approach). These conclusions echo the findings of an earlier study entitled 'Evaluation of the Implementation of the Paris Declaration: Thematic Study – Support to Statistical Capacity Building, Synthesis Report', OPM (2009):

> *"The recommendations of the evaluation emphasise the need for ownership, harmonisation, alignment, mutual accountability, and managing for results. These are not surprising recommendations: they echo international agreements in the Paris Declaration and at the Marrakech Roundtable on development results, amongst other places. The problem is that these agreements are currently not always respected. In order to improve support to statistics, they must be respected."*

They are also corroborated by the latest recommendations and guidelines proposed by PARIS21 in its Road Map for capacity development 4.0 (see box below).

Box 6.8: The virtuous circle of capacity development

The graph below highlights the reinforcing cycle of statistical capacity development: improving one aspect of the system complements its other parts.



Source: PARIS21: Statistical Capacity Development Outlook 2019

How to support statistics capacity strengthening?

The ideal framework for planning capacity development is a sector-wide statistics strategy such as a National Statistical Development Strategy. This will lead to capacity development actions being planned as part of the strategy implementation. In other situations such as existing stand-alone sector programmes with a statistics component, the programme planning should ensure that the capacity will be available when it is needed. Building an effective NSS takes a long time. Commitment to medium-term support for strengthening statistical capacity is required both from the country's decision makers and from its aid partners.

The alternative strategy is to include statistical capacity development within each sector and in particular linked with major surveys. The advantage is that the focus can easily be placed on the role of statistical information within the sector. The disadvantage is that there is less impetus for the construction of a coordinated NSS.

In general, the generic chapter on Institutional Capacity Assessment of DG International Partnerships / EuropeAid's Project Cycle Guidelines is highly relevant to statistics. In Africa, the 'Strategy for the Harmonization of Statistics in Africa 2017-2026' (SHaSA 2) was jointly developed by the African Union Commission (AUC), the African Development Bank (AfDB), the African Capacity Building Foundation (ACBF) and the United Nations Economic Commission for Africa (UNECA), with support by the Regional Economic Communities (RECs) and the AU member states, responding to the needs of the African Statistical System (ASS) to support the implementation of the African Union's "Agenda 2063: The Africa We Want", the African Development Bank's (AfDB's) High Five transformational agenda for Africa for 2015-2025 and in the UN's "Agenda 2030 for Sustainable Development". The SHaSA 2's Strategic theme 3 is specifically to "Develop sustainable institutional capacities of the African Statistical System", including the strategic objectives to Reform and enhance National Statistical Systems; Reform and enhance regional and continental statistical systems; Develop sustainable statistical capacities, and; Establish an effective technological environment. The SHaSA 2 can give a good idea of the central components of a comprehensive statistics capacity development programme.

Box 6.9: PARIS21: Guidelines for developing statistical capacity: A roadmap for Capacity Development 4.0

Statistical activities are no longer produced exclusively by designated official statistics organisations. The expansion of technologies has empowered new actors who traditionally lacked the capacity and resources to embark on data collection, analysis and dissemination. Private companies, civil society organisations and citizens themselves are emerging as data providers, thus blurring the lines between user and provider.

National statistical systems need to be strengthened on three levels: System (there is an urgent need for better coordination inside and outside the NSS), Organisation (Strategic planning, co-ordination, monitoring and evaluation inside the NSO, as well as well-targeted human resource management and transparent statistical production processes, are all crucial for producing high-quality data) and Individual (Next to training staff in the quantitative skills needed for data production, analysis and dissemination, NSSs should also aim to build communication, negotiation and leadership skills).

Source: PARIS21: Guidelines for developing statistical capacity: A roadmap for Capacity Development 4.0 (2020)

Measuring progress made in capacity development

The key issue when considering statistics capacity development is ensuring that the action under consideration is likely to make a significant practical difference to statistics operations. The progress made may be assessed through "comprehensive" systems, covering the whole statistical system such as the World Bank statistical capacity indicator (see box below) or through more targeted methods focusing on one or a limited number of dimensions of statistical capacity (skills of the human resources, availability and use of IT tools, running of surveys or censuses, level of compliance with international norms and methods …) or on one or a limited number of topics (capacities for poverty measurement, for macro-economic statistics, for social statistics …).

There are plenty of tools to assess the capacity and quality of statistical systems. But what transpires from recent studies is the fact that only partial assessment is generally made of statistical capacities, focusing on aspects that statisticians master best (methodologies, resources and tools, institutional framework) and leaving aside new concerns that are linked to the mobilisation of non-statistical sources and the setting-up of partnerships with new actors, providers as well as users of data. Again, the measurement of the SDGs has triggered new needs for information that cannot be matched by official statistics alone: there is a crucial need to consider the statistical eco-system within a larger perspective, building on multiple partnerships at local, national, regional and international level. Building statistical capacities more and more requires to open and share methods, tools and processes.

Box 6.10: World Bank: Statistical Capacity Indicator

Statistical Capacity Indicator provides an overview of the statistical capacity of over 140 developing countries. It is based on a diagnostic framework developed with a view to assessing the capacity of national statistical systems using metadata information generally available for most countries, and monitoring progress in statistical capacity development over time. The framework has three dimensions: statistical methodology; source data; and periodicity and timeliness.

The first dimension, statistical methodology, measures a country's ability to adhere to internationally recommended standards and methods. This aspect is captured by assessing guidelines and procedures used to compile macroeconomic statistics, and social data reporting and estimation practices.

The second dimension, source data, reflects whether a country conducts data collection activities in line with internationally recommended periodicity, and whether data from administrative systems are available and reliable for statistical estimation purposes.

The third dimension, periodicity and timeliness, looks at the availability and periodicity of key socioeconomic indicators. This dimension attempts to measure the extent to which data are made accessible to users through transformation of source data into timely statistical outputs.

Source: World Bank: Statistical Capacity Indicator (website)

Box 6.11: Measuring Statistical Capacity Development: a review of current practices and ideas for the future – moving towards Statistical Capacity 4.0

The paper provides evidence on what 14 of the most referenced assessments of statistical capacity aim to measure, and how they do so by comparing them with the dimensions of the PARIS21 Capacity Development 4.0 (CD4.0) framework.

The starting point of the analysis was the absence of a systematic approach to defining capacity as a basis for designing assessments and capacity development programmes. There have been criticisms in the past of the way in which statistical capacity is conceptualised in international assessments – there is a tendency to emphasise activities and outputs, while neglecting the utilisation of capacity. There are two main consequences of this lack of a systematic approach: the first is a proliferation of assessments by international organisations. This places a significant response burden on countries – paradoxically constraining those with low capacity even further. The second is the repetition of topics, areas, and even indicators/questions across many of the assessments. The majority of them focus solely on the most tangible aspects of capacity (mainly methodology, resources and statistical laws).

Source: PARIS21: Measuring Statistical Capacity Development: a review of current practices and ideas for the future – moving towards Statistical Capacity 4.0 (2018)

Financial and supporting instruments for capacity development in statistics

Most donor intervention in statistics aims at sustainability and therefore contains an element of capacity development. This should be the case even when the support provided is for a statistics operation, such as a population census or a household survey, and not directly aimed at increasing statistics capacity.

In the OECD's Development Co-operation Report 2017, the chapter on ' Rethinking donor support for statistical capacity building' specifically considers support for strengthening of statistical capacity in partner countries:

> *"Investing in data brings returns. Development data are critical for policy making, planning, and monitoring and measuring impact nationally and globally. Yet statistical systems in developing countries are often under-resourced and understaffed and traditional support to statistical capacity development is not fit for purpose. While political support to have and use more and better data is essential to realising the full potential of data for development, donor support needs to be increased, more effective and better co-ordinated by creating, for example, compacts for a country-led development data revolution."*

Building on the heritage from the Marrakech Action Plan for Statistics (MAPS) and of the Busan Action Plan for Statistics (BAPS) (see section B.1.2.1), the United Nations (UN) Cape Town Global Action Plan for Sustainable Development Data (see section B.1.3.3) identified key actions that had to be undertaken under six strategic areas: co-ordination and leadership (role of the statistical office in the national statistical system and co-ordination at national, regional and international level), innovation and modernisation of national statistical systems (governance, standards and technology), strengthening of basic statistics (social statistics, registers national accounts, geospatial data …), dissemination and use of data, multi-stakeholder partnerships (mobilisation of new sources of data, strengthening the relations with the users) and resource mobilisation (action plan and mix of national and external funding).

In a recent study entitled 'Financing challenges for developing statistical systems: A review of financing options', commissioned by PARIS21 and funded by the Swiss Development Cooperation, a group of experts estimated what would cost the implementation of the Cape Town Action Plan under three scenarios: low ambition (production of the SDG indicators), medium ambition (SDG indicators and capacity development) and high ambition (funding of all the objectives of the Cape Town Action Plan). The estimated costs ranged from 2.9 billion USD per year for the low ambition scenario to 5.6 billion USD for the high ambition scenario.

Box 6.12: OECD data for development – Rethinking donor support for statistical capacity development

Priority steps in rethinking donor support for statistical capacity development:

- Raise the profile of data for development at the highest political level.
- Treat data for development as a cross-cutting priority, viewing it as both a key means of achieving the SDGs and as an integral goal in itself.
- Revitalise support to development data; acknowledge the need for building the statistical capacity of developing countries.
- Increase domestic, international and private support for statistics and align support with national statistical plans and priorities.
- Ensure that strengthening of national systems is country driven.
- Focus on data use and users, as well as on dissemination and format.
- Establish co-ordinated and effective donor support for development data; build partnerships and co-operation.
- Increase the use of new funding mechanisms with a result-based focus.
- Improve monitoring, tracking and transparency of investments in development data.
- Contribute to the 2030 Agenda by supporting preparations for the 2020 census round.

Source: OECD: Development Co-operation Report 2017 – Rethinking donor support for statistical capacity development

There are a number of programmes from international, regional and bilateral donors directed at bringing support to capacity development. Around 2020/2021, several new programmes are being launched, such as the World Bank's new Global Data Facility (GDF) and the Bern Network on Financing Data for Development (Bern Network). These new programmes partly fill the void created by the expiration of previous programmes such as TFSCB and SRF-CF, partly fill in emerging needs to modernise statistical systems and make use of new data sources, technologies and methods (see section C.6.3).

Some specific aspects of capacity development

Intimately embedded into capacity development are two aspects that are discussed below. First, the training of the human resources who are involved in statistics must guarantee that skills and knowledge match the requirement for the production and dissemination of quality statistics. This concerns the initial training of the future statisticians as well as the permanent updating of their skills all along their careers in the statistical organisations. Second, statisticians in developing and transition countries are often isolated from innovation and poorly involved in the international advancement of norms and methods. The sharing of experiences with colleagues, nationally, regionally and internationally is thus a very relevant way for statisticians in identifying good practices and, in turn, using them in improving the quality of the existing statistical work.

C.6.2.2. CAPACITY DEVELOPMENT THROUGH TRAINING OF HUMAN RESOURCES

Training of statisticians

In most of the world, future statisticians are trained through the university system of their respective countries. In general, the training is very theoretical and the newly graduated statisticians acquire their experience on statistical operations and practices on-the-job during the initial years of employment in a statistical organisation or in an initial period of time with each of their new assignments in the institution. Francophone Africa is the only area where a specific and more professional system has been established through a network of Statistical Schools. Pupils integrate the schools after their college through a competitive test and follow a targeted curriculum (from 3 to 5 years or more – PHD - depending on the level desired) that includes both theoretical and practical aspects. The training programme and the competition are jointly monitored through an organisation, Centre d'Appui aux Ecoles de Statistique Africaines (CAPESA), which involve the schools, African statistical offices, AFRISTAT, French schools of statistics and the French cooperation for statistics.

Box 6.13: The network of statistical schools in French-speaking Africa

Statistical training schools in French-speaking Africa have opened in the 60's and 70's. Three schools provide training in statistics: ISSEA in Yaoundé, ENSAE in Dakar and ENSEA in Abidjan. ENSEA provides 4 levels of degree programs: «Ingénieurs Statisticiens Economistes» (ISE), «Ingénieurs des Travaux Statistiques» (ITS), «Adjoints Techniques de la Statistique» (AD) et «Agents techniques de la Statistique» (AT). Apart from classic training, the schools also offer a continuing education programme with specialised courses aiming to recycle professionals, enhance and update their knowledge in statistics. It also develops research activities on various topics covering economic, demographic and statistical fields. Its graduates work in priority for public institutions but the private sector is more and more recruiting them in order to enhance its statistical apparel.

- Ecole Nationale de la Statistique et de l'Analyse Economique (ENSAE) Dakar: https://sn.linkedin.com/company/ensaedakar and https://www.facebook.com/ENSAEDK/"
- Ecole Nationale Supérieure de Statistique et d'Economie Appliquée d'Abidjan (ENSEA): https://ensea.ed.ci/en/
- Institut Sous-régional de Statistique et d'Economie Appliquée

Training for statistical capacity strengthening

Training has always been seen as an important component of capacity development for statistics. This reflected in both an extensive and diverse offer for training courses from financial and technical donors organisations, a systematic inclusion of training within the statistical cooperation programmes and projects and the strong demand from statistical offices (mainly in developing and transition countries).

There are many factors behind this constant interest for training that are mainly linked to the nature of the work in statistics offices:

- Official statistics are the result of complex operations. Examples are surveys and censuses, which require long preparation and implementation periods. Other statistics, such as national accounts or price indexes, are built using multiple sources and scientific/well-established methods and practices, which are extensive and challenging to master by the staff. Long training and support is needed in these areas.
- The international norms, standards and practices on which official statistics are built must adjust to a fast changing environment. The world that statistics measure evolves constantly, calling for regular reviews and adjustments of estimation methods. An example is external trade of services, an area that was lightly assessed some years ago. However, due to its growing importance new recommendations have been developed, which need to be disseminated and internalised in the current statistical work. Another example is the recent recommendations from the 19th International Conference of Labour Statisticians regarding new patterns of employment. These recommendations need to be nationally implemented, requiring an extensive training effort.
- Rapid turnover of staff in the public services, including statistical organisations. On-the-job training is often one of the few incentives that can be offered to staff by the management. Considering the complexity of statistical work, the training (initial and on-the-job) of the staff of a statistical organisation is expensive. Thus, the rapid turnover generates significant losses not only of human resources but also of financial resources, not to mention the difficulties caused to the continuity of work. Consequently, external support is always welcome to compensate for scarce local resources for training.

One question that is central to the issue for a statistical organisation is linked to the choice between creating an in-house capacity for training (with all the implications regarding the design and the implementation of the courses) or using external facilities and resources. Most of the statistical offices in developing countries don't have the resources to create their own training centre and they often have to rely only on the offer from outside. This may make more economic sense but the setback is that there will be no control on the topics and the calendar and that may sometimes make conducting the work difficult (training opportunities may coincide with periods of heavy work in the institution. The result will be a loose/loose choice: to work without the staff in training (and frustrating the other members of the team) or to forbid the staff to go on training (thus frustrating her/him).

Box 6.14: An extensive offer of training courses for statisticians regionally and internationally

Most of the regional and international organisations involved in supporting statistics have developed extensive training programmes. These programmes concern in particular the norms and standards that these organisations have developed and want to promote. The international institutions generally address issues that are in their core business (i.e. statistics of the Balance of Payments for the IMF, labour statistics for the ILO or population statistics for UNFPA).

The regional organisations focus more on harmonisation methods and practices in their member states (and sometime their close neighbours), covering a wide range of sector and horizontal topics (National accounts and prices statistics for AFRISTAT, external trade statistics for goods and services for ASEANStat for example). They may all also address more horizontal issues such as the measurement of the SDGs or gender statistics. In these latter cases, coalitions of donors may be built to intensify/extend the training offer to the countries or to share the burden of the design and implementation of the courses. Some bilateral cooperation agencies and statistical offices are heavily involved in providing training on statistical issues related to their development priorities. Recently, a Global Network of Institutions for Statistical Training (GIST) have been established under the auspices of the UN statistical division. Most of the providers of training are members and it is also a resource reference for identifying the offer of statistical training.

Source: Global Network of Institutions for Statistical Training (GIST): Courses Inventory (website)

E-learning/Distance learning

For a long time, on-line training was not considered relevant for providing courses to participants in the developing and transition countries. Two main arguments were usually used against e-learning. First, the access to internet was technically not safe and secure enough to ensure a proper delivery of the course by the trainers and an active participation from the trainees (heavy training material difficult to download, interruptions in the connection during the lessons, desynchronised video and sound …). With the dramatic progress made recently everywhere in the world regarding the quality of the bandwidth, the issues linked to bad connection is far less prominent today. Second, it was argued that it was difficult for the trainees to be fully detached from their day-to-day tasks if they had to receive training at their office. The "training availability" of the trainees was not acknowledged by both their colleagues and their management and following an e-learning often meant to work overtime (against having a full availability outside of the office in the case of traditional class-room training courses). This second aspect is still an issue but, with the multiplication of the available sources of e-learning (to-day, they cover almost all key statistical issues and sectors) and the flexibility that this mode of training leaves to trainees, this is quickly changing. E-learning is today a common way of delivering training everywhere and particularly for statistics.

Box 6.15: Asian Development Bank experience

The Asian Development Bank's experience showed that Massive Open Online Courses (MOOCs) can reach a wider audience at substantially lower per-capita costs than in-class statistics capacity development activities. Further, strategic partnerships with other agencies maximized the use of resources in developing MOOCs on topics of mutual interest and widened the network of contacts to reach more people. Correspondingly, the wider reach of the MOOCs also enabled it to cater to typically underserved groups, such as women as well as individuals from low to lower-middle-income economies.

Source: Asian Development Bank / Development Asia: Designing Online Courses for Statistical Capacity Building (website)

Preparing a training course

The preparation of a training course (a training for adults) must follow successive steps. The first one is the assessment of the needs. This assessment should cover the Organizational goals and context (what the organisation want to achieve and how the proposed training course may contribute alone or with complementary activities), the participant profile and existing knowledge/skills (what already exists in terms of skills and achievements regarding the goal of the organisation), Current job tasks and knowledge/skill gaps (what should be the focus of the course to fill the gaps) and Follow-up requirements (how to consolidate the course outcome as to generate the maximum benefit for the trainee and the institution). All these elements will contribute to designing the course profile, a document that should be shared with the trainees, their institutions, the trainers and the organiser/funder of the course. The profile should review the topic, the training objective, the learning objectives, the targeted audience, the course outline, the type of training material the mode of delivery, the calendar and other organisational issues (including IT tools to be used). This document should be the result of a participative and consensual process as to match the needs of the organisation benefiting from the course.

Box 6.16: FAO: Practical tool for assessing training needs

Individuals participating in a learning initiative are always part of larger organizational context: for example, a rural association, a community-based organization, a ministry, a network of organizations. Once back in their context after having completed the activity, they will be faced with having to apply their new learning in their work setting.

Paying attention to the organizational context as part of a learning needs assessment helps to gear the contents of the initiative to the participant and to organizational needs. This is important to ensure that the newly acquired learning will be translated into practice and "transferred" sustainably to the workplace, with positive impact on overall organizational capacity.

Source: FAO: Capacity development – How to assess learning needs (website)

Increasing **statistical literacy** and training the users is today a key aspect of communication for statistics and certainly an important factor for improving the trust in official statistics. Many statistical organisations realised that their data were not entirely understood by the users and that misinterpretation and incorrect use could arm their reputation and the one of their products. The issue is not easy to address as each group of users will have to be dealt with differently according to their respective initial level of understanding and interest in statistics.

Box 6.17: UNECE: Statistical literacy – why?

- Numerous misunderstandings and misinterpretations of (official) data can be observed in media reports, in daily newspaper articles and in direct contact with our users. This weakness in quantitative skills is summarized under the term statistical innumeracy. In particular, among the younger generations and in developing countries there is an increasing need to understand quantitative data and facts. Making Data Meaningful Part 4: A guide to improving statistical literacy. Nowadays, it has become an inevitable requirement of contemporary societies to interpret quantitative data.
- Statistical literacy is more than numeracy. It includes the ability to read and communicate the meaning of data. This quality makes people literate as opposed to just numerate. Wherever words (and pictures) are added to numbers and data in your communication, people need to be able to understand them correctly.
- Getting users to appreciate the value of statistics is perhaps the most difficult and fundamental step. Decision makers in businesses and politics may need support particularly at this stage. The general public is also important, as high-quality official statistics are an essential pillar of democratic societies. This is challenging, because statisticians are often not used (or not asked!) to leave the field of statistics and to comment on or interpret the results. Statisticians therefore have to help data users to interpret and use the figures correctly, because the statisticians often have a better understanding of what the figures show and what they do not show.

Source: UNECE: Making Data Meaningful – Part 4: A guide to improving statistical literacy (2014)

Evaluating the impact of training

Training has often been considered as a way to increase knowledge and skills of individuals. However, capacity development must also be addressed at another more comprehensive level: the one of the organisation to which the trainee belongs. Individual capacities should be translated into institutional capacities as to generate sustainable changes and improvements. This is made even more important by the rapid turnover of the staff in the statistical organisations. As a consequence, the standard evaluation forms and tests that are applied to the training course, and which only address the feed-back and level of learning of the individual trainees) should be complemented by other activities aiming at transferring what has been learned by the trainee into her/his institution. This should ideally be piloted by the institution as part of its training strategy.

Different practices exist: a systematic presentation by the trainee of the training result to her/his colleagues (immediate colleagues or larger audience), a report on the training received circulated within the institution and accessible to the staff or a proposal for improvement in practices or methods used by the institution based on what has been learned. To efficiently evaluate the impact of these "follow-up" activities, the results of the individual training evaluation forms made immediately after the course (that include questions related to the relevance of the course for the job and to the future use of the skills acquired) should be confronted to what has effectively been done and applied in the organisation as a benefit of the training course. To that extend, "Post-evaluation" forms may be submitted by the organisers/ funders of the training course to both the former trainees and their management that will consolidate the information on the impact of the investment made.

Box 6.18: Training evaluation in the World Health Organization

To "evaluate" training means finding out what the "value" of training really is – to the trainees, their managers, their colleagues, the organization for which they work, and for the wider community. Thus, it is important to define clearly the training objectives so that the results of the training can be measured against them. The training objectives should not be imposed by the agency doing the training but should be defined in collaboration with country representatives to ensure that they fit the local context.

The assumption that training automatically leads to changed behaviour or improved work standards is simply not valid. Not all trainees change their work methods, or their approach to work, after training – even if they say they appreciate and enjoy the training sessions.

The reasons for evaluating training include:

- tracking the development of people's knowledge and skills;
- finding out whether the training is appropriate to the trainee and whether the learning is being applied;
- identifying gaps and future needs in training;
- finding out if the investment in training was worthwhile or whether alternative methods to improve performance (e.g. job rotation, incentives) are needed instead;
- obtaining information on which to base future training plans and strategies.

Source: World Health Organization (WHO): Evaluating training in WHO (2010)

Statistical organisations and international forums

The international statistical community offers number of opportunities for the statisticians to meet and to exchange. Beyond the expert groups, high level groups or the so-called 'City groups' (which are pretty specialised and gather very high level professionals - to set rules, define standards, propose methods) and the annual meeting of the UN Statistical Commission (targeting the head and high management of the statistical services), there are other meetings and conferences that are opened to all statisticians and that are occasions to present researches and studies and to talk about new and innovative practices and methods. These meetings an enrichment for all the participants who share the same professionalism and interest for the development of statistics.

The regional organisations involved in statistics also carry out regular organic meetings to discuss harmonisation and innovation within the member countries. For example, the heads of the statistical offices of the European Union meet yearly to elaborate the statistical programme of the Union. The same applies to other regional organisations such as ASEAN, UEMOA or CARICOM.

The 1st **UN World Data Forum** was organised in 2017 in Cape Town and focused on data for sustainable development and the relation between producers and users of statistics. The 2nd World Data Forum was held in Dubai in 2018 and addressed the challenges linked to the measurement of the SDGs. The 3rd World Data Forum was arranged online as a 'virtual conference', due the COVID 19 pandemic, while the 4th World Data Forum will be held in Bern, Switzerland, in October 2021. The forum is also open to non-statisticians, thus giving a chance to discuss collaborative partnerships, particularly in the context of the Agenda 2030.

The **International Statistics Institute (ISI)** was created 163 years ago and is the oldest professional association for statisticians. Members are individuals but also organisations. ISI develops many activities over the year, culminating every two years with its World Statistics Congress. Thousands of statisticians meet at these occasions and address selected topics through classroom presentations, technical papers and work group meetings. The 62nd World Statistics Congress was held in 2019 in Kuala Lumpur; the 63rd Congress will take place as an online virtual Congress in 2021.

Seven associations have been established under the umbrella of ISI which also develop targeted activities and organise workshops and conferences.

Box 6.19: Affiliated societies of the International Statistical Institute

- International Association of Survey Statisticians (IASS) (since 1973)
- Bernoulli Society (BS) (since 1975)
- International Association for Statistical Computing (IASC) (since 1977)
- International Association for Official Statistics (IAOS) (since 1985)
- International Association for Statistical Education (IASE) (since 1991)
- International Society for Business and Industrial Statistics (ISBIS) (since 2005)
- The International Environmetrics Society (TIES) (since 2008)

Source: International Statistical Institute – Community – ISI Associations (website)

A key issue when considering statistics capacity development is ensuring that the action under consideration is likely to make a significant practical difference to statistics operations.

The logical framework (or 'logframe') for a regional statistics training project, presented in Box 6.20, shows the main elements for development and managing such a project. The first column, entitled 'Project Description', first states the main purpose of the project, then the expected general result, which is again detailed into a number of practical outputs (or 'operational objectives'). For each of these aspects of the project planning, one can follow the rows to find for each:

- Indicators which can be used for assessing progress and evaluate the final results for that aspect of the project, e.g. for the overall 'Purpose' measures of how this has been met by the project;
- How to verify sources for verifying the results of these indicators, e.g. for the training courses looking at the training course reports and the resulting statistics; and
- The assumptions that have to be fulfilled for the different aspects of the project to be fulfilled, e.g. for delivery of professional training courses that the required documentation of outcome have been defined in the Terms of Reference and that the conditions for follow-up of the training are in place.

Box 6.20: Logical framework for regional statistical training programme

	Project Description	Indicators	Source of verification	Assumptions
Purpose	The overall objective of all statistics interventions is to support the region and its Member States to produce statistics to inform decision making by meeting the relevant quality criteria: the UN Fundamental Principles of Statistics and the African Statistics Charter	Statistics and metadata from the regional secretariat, Member States and from IMF GDDS; reports indicating the use made of statistics by government, private sector and civil society	Statistics publications from the regional secretariat, Member States' and IMF GDDS websites and paper publications. Indicators of use of statistics verified through internet search and collection of relevant publications	Sufficient financial support from region Member States is forthcoming; regional Member States produce and implement strategic plans for statistics such as National Statistics Development Strategy (NSDS); regional secretariat produces and implements a regional equivalent
Results	Ensure that the capacity exists within the region to provide statistics-related training that directly enables statistics producers to improve the quality of statistics produced and for users to improve the quality of their statistical analysis.	Preparation of each training course to identify the expected outcome in each Member State and in the regional secretariat, as well as other steps required to achieve expected impact	Training course reports; resulting statistics	Other inputs are often required, notably statistical tools and systems; staff assigned to training must be capable of being trained; management of NSIs must be supportive of change
Operational objectives – outputs	Trainees already working within National Statistics Systems have improved technical and management knowledge that is directly relevant to their work.			Sufficient project staff, including dedicated project management, remain assigned over its whole life.
1	Syllabus for training at defined level, capable of international accreditation, implemented widely throughout region	Syllabus and training materials available; courses wholly and/or partly based on materials being delivered; courses accredited	Materials availability: website and CD-ROM available from regional secretariat. Course delivery: course notices on internet and prospectuses. Accreditation: accreditation authorities	Materials availability: website flexibility. Course adoption: institutional regulations. Accreditation: accrediting institute regulations and capacity.
2	Training Short Courses at professional level delivered at regional level	Short courses delivered: course reports, including documented expected outcome at country level; follow-up reports	Course reports; follow up reports	Requirement for documentation of expected outcome included in each ToR; follow-up can be effectively implemented
3	Training methodologies transferred to national level	Short courses delivered: course reports, including documented expected outcome; follow-up reports	Course reports; follow up reports	Methodology can be transferred effectively to Member States

To find out more…

about how to assess statistical capacity:

- PARIS21: Capacity Development 4.0 (website)
- PARIS21: Data Ecosystem (website)
- PARIS21: Statistical Capacity Development Outlook 2019
- PARIS21: Measuring Statistical Capacity Development: a review of current practices and ideas for the future – moving towards Statistical Capacity 4.0 (2018)
- PARIS21: Assessing the capacity of national statistical systems: a users' guide (2018)
- PARIS21 Task Team report: Statistical Capacity Building Indicators (2002)
- European Commission – International Partnerships/EuropeAid: Institutional Assessment and Capacity Development: Why, what and how? Aid Delivery Methods Concept Paper 09/2005
- UNECE Statistical Capacity Development wiki: Capabilities, Maturity Models and Roadmaps
- World Bank: Statistical capacity Indicator (website)

about how to develop statistical capacity:

- United Nations Statistical Commission (UNSC): Cape Town Global Action Plan for Sustainable Development Data (2017)
- UNECE / Conference of European Statisticians: UNECE Statistical capacity development strategy (2018)
- Eele, Graham: Building statistical capacity: The challenges, PARIS21 Discussion Paper No. 7, Paris (2015)
- Bester, Angela: Study on Capacity Development, prepared for the United Nations Department of Economic and Social Affairs for the 2016 Quadrennial Comprehensive Policy Review (2016QCPR) (2015)
- OPM: Evaluation of the Implementation of the Paris Declaration: Thematic Study – Support to Statistical Capacity Building, Synthesis Report, 2009
- European Commission DG International Partnerships / EuropeAid: Project Cycle Management Guidelines (2004)
- African Union Commission, African Development Bank, African Capacity Building Foundation and United Nations Economic Commission for Africa (UNECA): Strategy for the Harmonization of Statistics in Africa 2017-2026' (SHaSA 2) (2017)
- PARIS21: Guidelines for developing statistical capacity: A roadmap for Capacity Development 4.0 (2020)

about funding for statistical capacity development:

- OECD: Development Co-operation Report 2017, chapter 'Rethinking donor support for statistical capacity building' (2017)
- PARIS21: Financing challenges for developing statistical systems: A review of financing options, PARIS21 Discussion Paper, No. 14, Paris (2019)
- World Bank: Statistical capacity building (website)
- The Bern Network on Financing Data for Development (Bern Network) (website)
- European Commission – DG International Partnerships: Funding (website)

about training as a means for developing statistical capacity:

- United Nations Economic Commission for Europe (UNECE): Human Resources Management and Training – Compilation of Good Practices in Statistical Offices (2013)
- Global Network of Institutions for Statistical Training (GIST): Courses Inventory (website)
- Asian Development Bank/Development Asia: Designing Online Courses for Statistical Capacity Building (website)
- Dag Roll-Hansen: In-house training in statistical organisations – Some issues to consider and suggestions for courses, Statistics Norway Documents 31/2012 (2012)
- Centre d'Appui aux Ecoles de Statistique Africaines (CAPESA) (website)
- Food and Agriculture Organization of the United Nations (FAO): Capacity development – How to assess learning needs (website)
- World Health Organization (WHO): Evaluating training in WHO (2010)
- United Nations Economic Commission for Europe (UNECE): Making Data Meaningful - Part 4: A guide to improving statistical literacy (2014)

about other useful resources and references:

- Open Group Architecture Framework (website)
- United Nations Statistics Division: Methodology – City Groups (website)
- United Nations Statistical Commission(website)
- United Nations World Data Forum (UN WDF) (website)
- International Statistical Institute (ISI): World Statistics Congresses and ISI affiliated societies (websites)

C.6.3. Co-ordinating with other programmes and other development partners

C.6.3.1. FUNDING OF STATISTICAL CAPACITY BUILDING IN THE PAST DECADES

The Marrakech Action Plan for Statistics (MAPS) in 2004 and the Busan Action Plan for Statistics (BAPS) in 2011 both called for increased investment in statistical systems and strategic planning for developing statistical systems, while improving the coordination and accountability of the international statistical system. In response to this, a set of financing instruments were established to provide required funding for the development and the implementation of National Strategies for Development of Statistics (see section C.6.1) or similar strategies and comprehensive statistical development plans, as well as associated activities.

Developing countries generally need financial assistance for investments in infrastructure, people and equipment. However, the poorest developing countries may also need assistance to cover also recurrent costs, at least in the shorter term. This challenge calls for donors to increase their financial support for statistics and, at the same time, for developing countries to provide increased domestic budget allocations, in order to build a sustainable statistical system.

To assess progress, the international financing instruments for statistical capacity development encourage developing countries to apply international standards and frameworks. These include the UN's Fundamental Principles of Official Statistics (see Box 2.1), the IMF's Enhanced General Data Dissemination System (e-GDDS) (see Box 5.5), as well as NSDS or similar strategies for developing national statistical capacity in support of National Development Plans, Poverty Reduction Strategies or other development planning. Based on the goals of the NSDS, measurable targets and indicators of success should be defined. Key methods and tools for assessing and measuring statistical capacity and for developing it in an efficient and result-oriented manner were described in section C.6.2.

The preparation of an NSDS is an essential step in improving the capacity of statistical systems. This is an important mechanism for co-ordinating financial and technical assistance to statistics in accordance with national priorities. NSDS and the associated implementation and financing programmes lead towards more co-ordinated financing for statistics and bring financial support from donors together in a coherent and consistent framework.

The design of a NSDS can be supported by bilateral and multilateral donors. For the last two decades, the Trust Fund for Statistical Capacity Building (TFSCB) has been an important source for financing of NSDS and statistical capacity building. It was financed by contributions from multiple donors, and was administered by the World Bank. In Africa, the preparation of NSDSs has also been supported by the African Development Bank.

Since its inception in 1999, the TFSCB approved 431 projects in 125 countries and in every region. The last projects were planned to close by December 2020, with TFSCB closing down in June 2021. An evaluation of the entire TFSCB is planned to take stock of lessons learned and suggest recommendations for future programs.

To provide substantial and sustained investment in statistical capacity, the Statistics for Results Facility (SRF) was set up in 2009. SRF was a global initiative concerned with strengthening statistical systems and developing capacity in the poorest developing countries. The Statistics for Results Facility Catalytic Fund (SRF-CF) was a multi-donor programmatic trust fund, like TFSCB managed by the World Bank on behalf of the donors. The SRF-CF trust fund closed at the end of 2019. A final evaluation of the SRF-CF was published in December 2019.

Following the expiration of the TFSCB and SRF-CF, the World Bank will launch its Global Data Facility (GDF) at the UN World Data Forum in Bern in October 2021, GDF is a new trust fund umbrella aimed at efficiently and transparently pooling resources to support statistical development. The GDF is established to strengthen the capacity of national data and statistical systems and to help overcome data deprivation across regions. It is the World Bank's primary mechanism to mobilize and coordinate donor support for data and statistics activities and will leverage other World Bank financing. The GDF builds on an enabling and equitable global data infrastructure and strengthening local and national data systems.

To find out more…

- Marrakech Action Plan for Statistics (MAPS) (2004)
- Busan Action Plan for Statistics (BAPS) (2011)
- World Bank – Development Data Group: Statistical Capacity Building website
- Snorrason H., Flatt A. J., Østereng H. K.: Report on the final evaluation of the SRF-CF (2019)
- UN Statistical Commission: Background document to the report of the Intersecretariat Working Group on National Accounts (2021)
- Commission Implementing Decision C(2021) 3046 on the financing of the Programme for single market, competitiveness of enterprises, including small and medium-sized enterprises, and European statistics and the adoption of the work programme for 2021-2024 - Annex (2021)

C.6.3.2. NEW INITIATIVES FOR FUNDING OF STATISTICAL CAPACITY BUILDING

To accelerate action towards the SDGs, the United Nations General Assembly has initiated a 'Decade of Action and Delivery', calling on everyone to re-double their efforts to achieve the Agenda 2030 and leave no one behind.

However, there is still a severe gap in timely, accurate, and reliable data on the SDGs. These missing data reduce the ability of countries to design and implement efficient and effective policies and programmes, spot opportunities and avoid risks, and monitor progress. According to PARIS21,

international funding for data and statistics is only around half the level that it needs to be, as established in the Cape Town Global Action Plan for Sustainable Development Data (CTGAP). The most severe data gaps are in the poorest and most fragile countries, where governments lack the resources to build strong statistical systems.

The CTGAP identifies strategic areas that need strengthening and serves as a framework for investment. The Dubai Declaration, announced at the UN World Data Forum in 2018, calls for the establishment of a funding mechanism to mobilize domestic and international funds to strengthen the capacity of national data and statistical systems.

The Bern Network on Financing Data for Development has been set up as an open, multi-stakeholder alliance that brings aid and development agencies, national statistical offices, ministries, private sector and civil society groups together to advance the 2030 Agenda for Sustainable Development by promoting more and better financing for development data.

The Bern Network was established in 2019 by the Swiss Agency for Development and Cooperation and the Swiss Federal Statistical Office, together with partners, to catalyse change in the amount and quality of resources for data and statistics ahead of the United Nations World Data Forum in 2021 in Bern, Switzerland. It is led by a group of core members including Global Partnership for Sustainable Development Data, OECD, Open Data Watch, Switzerland, PARIS21, the United Kingdom, United Nations Statistics Division, and the World Bank. It is hosted by PARIS21.

Box 6.21: The Bern Network: proposal for commitments on funding for development data

The Bern Network states that:

Building the statistical infrastructure for the Decade of Action will require a strong political commitment to scale up and make better use of existing funding. Developing country leaders need to scale up their support to national statistical systems. Their partners, bilateral and multilateral alike, will have to coordinate their support and get behind national priorities. Additional funding will have to come from domestic resources, if possible, and from aid providers, if necessary.

A stronger, mutual financial commitment is paramount. But to be effective, it should come with a set of sensible commitments about our partnership that reinforce and support one another. Taken together, they will improve the quantity and quality of development data by creating efficiencies in current spending, leveraging existing resources, and attracting new funding. Making this a reality will require a shared vision between developing countries and their partners:

- **Mobilise domestic resources.** Domestic resources will have to account for the largest share of additional funding for data and statistics in developing countries. Strong commitments from developing country leaders to invest in data and statistics should therefore be incentivised. The efforts of NSOs to lobby for funding should be supported and championed in cooperation with ministries of finance, budget committees, and national statistical offices.
- **Scale up funding.** Donors – bilaterals, multilaterals, foundations, and thematic global funds – should commit to increasing financial support to data and statistics, which currently account for only one- third of a percent of total ODA. Various options are available. For instance, donors could establish a fresh pooling arrangement to fund system-wide improvements. Donors could also coalesce around a 'data compact for the poor'. Multilateral donors – regional and international financial institutions and UN agencies – have been key partners of national statisticians all around the world. They could commit to scaling up their support to data and statistics. Coordinating the use of their resources with any new mechanisms that will be established has to be a priority.
- **Boost efficiency.** Development co-operation actors should streamline their support, follow best practices, and adhere to aid transparency standards. To avoid duplication, actors could commit to using country-produced data wherever possible and to sharing their own data whenever collection cannot be avoided. They could also commit to allocating a small percentage of their project funds to strengthening relevant data and statistical systems. This should help spark a virtuous cycle in which increased demand leads to increased use, which will thereby strengthen and improve the statistical system to respond to growing demand. This can also help ensure investments follow a holistic strategy to develop capacity of the system as opposed to piecemeal interventions. As a general principle, a "do no harm" approach should be adopted.
- **Strengthen collaboration.** There is ample scope to strengthen co-ordination between donors and among donors and partner countries, promote south-south cooperation, and harness digital technologies to make the status quo of funding for statistics more cost-efficient. The Bern Network has been exploring the inventory of existing sources of information on support to statistics and data gaps. Based on this work and building on existing initiatives, it is developing an online Clearinghouse for Financing Development Data to provide near real-time information on data supply and demand to support more effective decision-making on financing for data and statistics.
- **Leverage sectoral funds.** Sectoral data investments are valuable as they aim to strengthen core systems that can support and sustain outcomes in areas such as health and agriculture. There are opportunities to gain efficiencies in such investments and make them more sustainable by connecting them to national statistical systems. Improved integration between administrative data systems and core statistical systems can have cost-saving benefits, work towards closing data gaps, and lead to a stronger national statistical system overall. The Bern Network is exploring how to connect lessons learned from sectoral project and fund investments in data and how to leverage the benefits across sectors to build a stronger foundation for countries' statistical and administrative systems, including under the Clearinghouse.

Source: The Bern Network: More and Better Development Data for a Decade of Action (factsheet; 2021)

The Bern Network is also developing a 'Clearinghouse for Financing Development Data'. The Clearinghouse aim to help countries, donors and development partners identify funding opportunities, bring projects to scale, advocate for support to data and statistics and connect to new partners. The online platform will provide information and services to match the supply and demand of financing for data and statistics to foster transparency, accountability, and alignment, and facilitate coordination among donors and partner countries.

For the European Union, the new 'Neighbourhood, Development and International Cooperation Instrument - Global Europe' (NDICI) is the EU's main financing tool for development cooperation for the programming period 2021-2027. It will be key to achieving the international commitments and objectives that the EU has agreed to, in particular the 2030 Agenda and the Sustainable Development Goals and the Paris Agreement. NDICI - Global Europe gathers several current external financing instruments under the EU budget, including the European Development Fund (EDF) and the Development Cooperation Instrument (DCI). The NDICI gives particular priority to the countries most in need, particularly least developed countries, low-income countries, fragile or crisis-struck countries, supporting them to overcome long-term developmental challenges, in particular with eradicating poverty and promoting sustainable development, prosperity, peace and stability. For more details on the NDICI, see section B.3.3 and the links given in the 'To find out more' box below.

To find out more…

- High-level Group for Partnership, Coordination and Capacity-Building for Statistics (HLC-PCCB): Cape Town Global Action Plan for Sustainable Development Data (CTGAP) (2017)
- High-level Group for Partnership, Coordination and Capacity-Building for Statistics (HLC-PCCB): Dubai Declaration (2018)
- United Nations World Data Forum (website)
- PARIS21: Financing challenges for developing statistical systems: A review of financing options, PARIS21 Discussion Paper, No. 14, Paris (2019)
- PARIS21: Mobilising Data for the SDGs, PARIS21 Discussion Paper, No. 15, Paris (2019)
- PARIS21: Statistical reporting, data and analysis (website), including the Partner Report on Support to Statistics (PRESS) and Country Report on Support to Statistics (CRESS)
- Bern Network on Financing Data for Development (website) and the Bern Network brochure 'More and better development data for a Decade of Action' for the UN World Data Forum in Bern, Switzerland (2021)
- Bern Network: Clearinghouse for Financing Development Data (brochure) (2020)
- Regulation (EU) 2021/947 of the European Parliament and of the Council of 9 June 2021 establishing the Neighbourhood, Development and International Cooperation Instrument – Global Europe
- DG International Partnerships: Global Europe: Neighbourhood, Development and International Cooperation Instrument website and factsheet
- DG International Partnerships: Factsheet on the Multiannual Financial Framework 2021-2027 and the Neighbourhood, Development and International Cooperation Instrument (2020)

C.6.3.2. CO-ORDINATION OF PARTNERS AND ACTIVITIES

Good practices on how to develop strategic planning frameworks for the development of statistics can be found in PARIS21's National Strategies for the Development of Statistics (NSDS) Guidelines and in its NSDS Knowledge Base. The NSDS Guidelines provides guidance on how to use a system-wide (or programme-based) approach to support the strengthening of National Statistical Systems. The approach emphasises the central importance of implementing well-designed and realistic strategies for development of the national statistical system, directly linked to national development plans, poverty reduction strategies or other development strategies. The Guidelines provides operational guidance for managers and funders of national statistical systems on moving from the preparation of plans and strategies to their implementation.

In statistics-related fields, as in other areas, donors typically specialise in a limited number of technical fields, provide financial support across wider areas and leave some subjects to other development partners. To avoid duplication and the involvement of development partners in statistics actions outside their areas of expertise, co-ordination within the development community at large is essential.

One of the key principles underlying the Cape Town Global Action Plan (2017) is ***Cooperation***:

> *"***Cooperation***. The Plan recognizes the crucial role of cooperation among countries, regional organizations, and other international organizations and stakeholders in supporting countries' plans and efforts in capacity building. The Plan recognizes the expertise and abilities of these key stakeholders as essential resources for progress and modernization. Indeed, they have a crucial role in capacity building exercises and in carrying out statistical capacity building efforts in their areas of work. Nonetheless, the role of international organizations and regional entities to the development of methodologies and data in their respective programmes must be conducted in full consultation and coordination with National Statistical Offices. Coordination and streamlining of these activities are necessary to avoid duplication of efforts and channel effort to furthering the Agenda."*

This is directly reflected in the CTGAP's Strategic Area 5 'Multi-stakeholder partnerships for sustainable development data' and in particular in Strategic Area 6 'Mobilize resources and coordinate efforts for statistical capacity building':

Objective 6.1: Ensure that resources are available to implement the necessary programmes and actions as outlined in this global action plan (both domestic and from international cooperation)

Key Actions:

- Provide an overview of capacity needs based on the implemented or existing needs assessments and consider appropriate matches between types of support and types of needs.
- Identify and coordinate existing resources, including south-south and triangular cooperation mechanisms, to strategically address these needs, and identify resource gaps.
- Develop a programme for statistical capacity building on the basis of capacity needs.
- Mobilize donor support towards the priorities agreed in national and regional statistical strategies and promote reporting on financing for statistics.
- Create opportunities for participation of non-state actors in funding statistical activities through innovative financing mechanisms using means consistent with the UN Fundamental Principles of Official Statistics.
- Promote nationally and/or regionally-owned coordination mechanisms of capacity building initiatives
- Support countries in the implementation of the SDG indicator framework.
- Engage in communication and advocacy activities at the policy-making level to raise awareness and understanding of implementation aspects of the SDG indicator framework.
- Develop criteria and mechanisms to set priorities for the mobilisation of resources.
- Promote the sharing of relevant implementation experiences between countries.

The importance of coordination of resources and cooperation between stakeholders both at national level and with international partners was further highlighted in the Dubai Declaration (2018), where the participants resolved to:

> *"Work in a collaborative manner to bring all data communities together to implement the CTGAP, our common framework for the modernization and strengthening of statistical systems, and the design and implementation of country-led statistical capacity building activities necessary to achieve the 2030 agenda."*

The New European Consensus on Development underlines the critical value of working in partnership, and commits the EU and its Member States to work hand in hand under the motto 'Working better together':

> *"In response to global challenges, the EU and its Member States will further improve the way they deliver their cooperation, including by working together better, taking account of their respective comparative advantages. This includes improving effectiveness and impact through greater coordination and coherence, by applying the development effectiveness principles and by delivering development cooperation as one part of the overall internal and external action to promote the implementation of the 2030 Agenda. To be more effective in pursuing its objectives, and consistent with the primary aim of eradicating poverty, the EU's development policy should be adaptable and responsive to changing needs, crises and priorities."*
>
> *"At country level, the EU and its Member States will enhance Joint Programming in development cooperation to increase their collective impact by bringing together theirresources and capacities. Joint Programming should be promoted and strengthened, while being kept voluntary, flexible, inclusive, and tailored to the country context, and allow for the replacement of EU and Member States' programming documents with EU Joint Programming documents. Partner country engagement, appropriation and ownership are essential for this process. Joint Programming should be led by the partner country's development strategy and aligned to the partner country's development priorities. The EU and its Member States will work together to develop strategic responses grounded in shared knowledge, added value, lessons learned and joint analysis of the country context, including poverty and sustainability, and the country's overall relations with the EU."*
>
> *"The increased use of EU joint responses derived from Joint EU Programming can ensure greater impact and visibility for the EU and its Member States on the ground. This approach will help pool resources, reduce fragmentation and boost effectiveness. Joint monitoring and results frameworks will be core elements of the joint response to maintain momentum, inform dialogue and enhance mutual accountability."*
>
> *"The EU and its Member States will also seek to support partner countries through joint implementation whenever appropriate. Joint implementation is a way of promoting more coherent, effective and coordinated EU support based on shared objectives in selected sectors or on specific cross-sectoral themes and tailored to the country contexts."*
>
> *"Joint implementation will be inclusive and open to all EU partners who agree and can contribute to a common vision, including Member States' agencies and their development financial institutions, the private sector, civil society and academia. This could also, when assessed to be relevant, include other like-minded governments, the United Nations and other international and regional organisations and financial institutions."*
>
> *"Stronger partnerships are at the heart of the EU's approach to SDG implementation. The EU and its Member States will work more closely with all other relevant actors to promote the implementation of the 2030 Agenda and strengthen their capacity for democratic ownership."*

The New European Consensus on Development is described in more detail in section B.3.3.

Different modalities can be applied for coordination of support to statistical systems and developing statistical capacity in partner regions and countries:

- The beneficiary country or region has a responsibility for coordinating external assistance. A statistical strategy such as a NSDS is the best means of coordinating internal and external resources, both financial and technical. A primary benefit from this level of coordination of statistics is the reduction or elimination of superfluous household surveys.
- Development partners committees in the beneficiary countries, including the participation of EU Member States, provide a key element of co-ordination. Some development partners have highly decentralised decision processes, providing information about the content of activities through channels within a beneficiary country. This is particularly the case with sector projects. In these, statistics may form a relatively small part. This could lead to only the main sector of operations being recorded centrally and that information about the statistical implications is missing.
- The international organisation charged with co-ordinating the sector statistics in question is an important information source. One example of international organisations' co-ordination is the preparation of the 2020 World Population and Housing Census Programme through the UN Statistics Division. Websites and other documents provide information about regionally and globally coordinated actions. International and global organisations responsible for statistics in specific sectors are identified in section B.2.4.
- Information about EU support for the development of statistics.

Standard project information does not necessarily provide full information on statistics activities or on the data provided for the relevant results frameworks applied. Potential overlaps can occur between national and regional projects; between sector support for statistics and statistics parts of projects in other sectors; and between support actions for overlapping regional organisations.

The national ownership and the coordination of activities through the national development plans and national strategies for development of statistics should identify and minimise such overlaps and duplications.

To find out more…

- New European Consensus on Development (2017)
- Cape Town Global Action Plan for Sustainable Development Data (CTGAP) (2017)
- Dubai Declaration (2018)
- PARIS21: Guidelines for National Strategy for the Development of Statistics (NSDS) (website; version 3.0, 2020)
- PARIS21: Statistical reporting, data and analysis (website), including the Partner Report on the Support to Statistics (PRESS)

C.7 The European Commission's support to statistics

C.7. The European Commission's support to statistics

The chapter in brief

The chapter starts from the point at which the development partners accept that there is a need for external support to statistics. The chapter aims to inform the subsequent decision about whether and how the European Commission should be involved. It first considers the Commission's development statistics activities in the context of country / regional strategies and programmes, including any statistics strategy. It continues by looking at the purpose of statistics actions and how they are linked to the development objectives using the logical framework. The chapter finishes with a practical look at the various types of European Commission statistics interventions, showing links with policies, identifying areas of cooperation, listing examples and providing action points.

C.7.1. Objectives for statistics actions: statistics as policy support

Statistics are instrumental in achieving policy goals, as discussed in chapter B.1. However, statistics may be unavailable or of poor quality, thus making it impossible to construct and use the indicators needed to prepare, monitor and evaluate a specific programme. The diagnosis section in a strategy paper should identify areas where absent or poor quality data are a significant constraint to achieving policy goals. If statistics are a constraint across many fields, this can be considered as a governance issue. In a regional context, insufficient statistics can be a barrier to regional integration and regional policy goals.

The response strategy should identify support for reliable, relevant and timely statistics as a means to inform policy preparation, monitoring and evaluation in the area(s) of concern. Support should focus on strengthening statistics by better meeting the relevant quality criteria, including the UN Fundamental Principles of Statistics (see section B.2.1), thus making the data better suited to support decision-making. Actions in support of statistics should be provided within the frame of the National Strategy for the Development of Statistics, which should be compatible with national development plans or poverty reduction strategies (see section C.6.1).

The availability of good quality statistics is a pre-condition for proper strategic analysis and for programming and design of concrete interventions. The analysis should address the state of the statistics system, its strengths and weaknesses and outline any remedial or quality improving actions required.

Box 7.1: Check points to assure statistical actions are aligned with policy goals

- The statistics action is aimed at supporting a policy that is itself compatible with the partner country's and/or partner region's development strategy and is therefore mentioned in the relevant programming documents.
- Statistics actions, including their scope, should be compatible with national statistics strategies (NSDS).
- National / regional ownership of the statistics action is clearly demonstrated.

C.7.2. Matching outputs to objectives: the logical framework of a statistics action

The purpose of any statistics-related intervention by the European Commission is to support the partner country and/or region to sustainably produce good quality statistics in order to inform decision-making. In order to focus support on achieving policy goals, it is important to identify and classify the types of intervention being considered. This will help ensuring that planned activities will achieve the objectives. All European Commission statistics actions aim at one or more of the following **specific objectives**:

- Improve coverage and quality of statistical information (output);
- Improve capacity to collect, process, analyse and disseminate statistical information (capacity building);
- Improve the use of statistical information (use).

For example, an action to support the adoption of statistics standards in a partner country might include specific objectives that cover both output and capacity-building.

The specific objective in the example in Box 6.20, presenting the logical framework for a regional statistical training programme, clearly falls under the capacity category:

- Ensure that the capacity exists within the region to provide statistics-related training, which directly enables statistics producers to improve the quality of the statistics produced and for users to improve the quality of their analysis based on the statistics provided.

The biggest challenge in developing a statistics activity is ensuring that there is a clear explanation of **how the planned outputs will contribute to achieving the results** (specific objectives). This is especially important in statistical capacity building.

At the **operational objectives** level, the following common types of outputs can be identified, which together correspond to the range of statistics-related problems:

- **Strategy:** Strengthen the relationship between statistics and decision makers, which is vital for evidence-based policy making and good governance; set medium term strategy to meet policy-oriented goals. This process should be country-led and country-owned. (Section C.6.1 considers policy-level relations and statistics strategies.)
- **Framework:** Strengthen the legal and regulatory framework for statistics, develop and strengthen inter-institutional relationships. In particular, access to and use of public registers and other administrative data sources and the plethora of new public and private data sources (including 'Big Data') encompassed by the 'data revolution' term, is a challenge that needs to be addressed by a modernised legal framework. (The legal and regulatory framework for statistics is central to the fundamental principles for official statistics, as described in section B.2.1. It is considered in the context of national statistical strategies in section C.6.1, and is also a key issue for the assessment of national statistical systems as described in section C.5.1.)
- **Capacity:** Strengthen the national (regional) capacity to develop, maintain and disseminate quality statistical information required to formulate, implement and monitor policies. This is generally the main activity in implementing an NSDS (or RSDS) – see chapters C.5 and C.6. Often, the focus is directed at the capacity to produce the indicators of the SDG global monitoring framework – however, this should clearly also be viewed in the context of national development priorities and the information needs for defining and monitoring these.
- **Capacity / Harmonisation:** Develop the international comparability of statistics, based on international standards, nomenclatures, methodological frameworks, accounts systems, etc. (Capacity building is considered in section C.6.2.) (In some cases, this requires harmonisation with the European Statistical System (ESS). Harmonisation with ESS standards is identified separately as it is the specific purpose of some European Neighbourhood Policy statistics actions.)
- **Users:** Strengthen the capacity of stakeholders to access, analyse and interpret the statistical data produced.
- **Production support:** Provide direct support to produce and disseminate specific statistics. Direct support for data production and dissemination is usually for population censuses and large-scale surveys, where external support is appropriate due to their cost.

Indicators and sources of verification:

- At the project purpose level, indicators should relate to the publication of statistics ***and*** metadata at country (or regional) level, as well as through international data portals. In capacity building actions, it should usually be indicated whether information has been loaded in the IMF's 'Enhanced General Data Dissemination System' (e-GDDS) portal (see section B.2.1 and section B.2.4) – however, it should be kept in mind that this mainly focuses on economic statistics. For SDG-related actions, it should be highlighted whether the national data have been included in the UN SDG indicators general database. For statistics users, published analyses of statistics should be highlighted.
- At the results level, indicators should relate to the application of the activity outputs. This is particularly important in capacity building activities. For example, in the case of training in statistics: what is the plan to apply the training received, for example in changing statistical nomenclature, use new software or more advanced versions, implementing a new version of the System for National Accounts, etc.? Have the former statistics students been employed to produce and disseminate official statistics? In the case of internal training activities within the NSI and/or NSS, do the training participants remain within the organisation after the training (e.g. on a one-, three- or five-years horizon).
- Output level indicators are relatively straightforward: training materials, attendance lists, trainer's reports and student evaluations, etc.

To find out more…

- DG International Partnerships: Project Cycle Management Guidelines (EuropeAid, 2004)
- Evaluation of the Commission Support for Statistics in Third Countries (2007)
- European Commission Staff Working Document SWD(2018) 444 final: A Revised EU International Cooperation and Development Results Framework in line with the Sustainable Development Goals of the 2030 Agenda for Sustainable Development and the New European Consensus on Development (2018)

C.7.3. Providing European Commission support for statistics

C.7.3.1. THE EUROPEAN COMMISSION'S IMPLEMENTATION INSTRUMENTS AND STATISTICS

Support to statistics can be applied through any of the various types of instruments used in European Commission development cooperation.

- Classic **projects** focussed on statistics tend to create large demands on Commission management time, relative to the size of the project. Nevertheless, they are still used where there is no alternative.
- **Sector-Wide Action programmes:** 'A SWAp is a programme-based approach applied to a particular sector, such as education, health or agriculture. This will support a sector development programme (SDP), which is "***a single comprehensive programme and budget framework, comprising a specific, time-bound and costed set of actions and activities within a sector***" such as, in the case of statistics, an NSDS incorporating both government and donor resources([1]).

([1]) Definition from PARIS21: A Guide to Using a System-wide Approach to Implement National Strategies for the Development of Statistics (NSDS)

- A **sector-wide programme for statistics** may or may not form part of a wider government or planning system reform. The aim is to improve the statistical and analytical capacity needed in key ministries. The approach provides for a general reform of the statistical function, including capacity building measures.
- **SWAps for education, health or other sectors** may contain a statistics element. This is perhaps the more common of the two approaches. For example, agriculture statistics may be one of the problems to be addressed within the rural development focal area.

- **Budget support programmes** typically have a capacity building component that can be mobilised to support the strengthening of statistical systems, either through project modality, technical assistance or pooled funding.

C.7.3.2. EUROSTAT'S ROLE IN SUPPORTING STATISTICAL CAPACITY BUILDING IN THIRD COUNTRIES

Eurostat is the longest existing regional statistical organisation in the world. Eurostat has considerable experience of developing harmonised statistical approaches across a region and in developing approaches to improve the quality of statistics from production to dissemination.

Eurostat has actively supported statistical capacity building for many years, both at regional and national level throughout the world, either bilaterally or through financial support to organisations such as PARIS21. Experience has shown that activities and support at regional and sub-regional level has the greatest impact, through multiplicator effects and peer-to-peer learning central to building capacity throughout the countries of the region and assuring sustainability of the progress made. Eurostat supports capacity building efforts in partner regions and countries through:

- Promotion of standards, methods and procedures;
- Provision of technical support to regional level statistical organisations across the world;
- Promotion and participation in regional international forums.

The legal basis for preparation of the 'European statistical programme' is Regulation (EC) No 223/2009 on European statistics. It provides the framework for the development, production and dissemination of European statistics.

The European statistical programme 2021-2027 is part of the European Commission's 'Single Market Programme' for this period, Regulation (EU) 2021/690. Annex II covers the multi-annual work programme for European statistics. This is further detailed in the Annex on European Statistics of the annual Work Programmes of the Single Market Programme, laid down by a Commission Implementing Decision for each year. Regarding international cooperation, Annex II on European statistics of the 'Single Market Programme' stipulates that the following action shall be carried out: "***continuing the cooperation with international organisations and third countries for the benefit of global official statistics***."

To find out more…

- DG International Partnerships: Budget support website (including links to the European Commission Communication COM(2011) 638 'The Future Approach to EU Budget Support to Third Countries' and updated Budget Support Guidelines (2017))
- Eurostat: Section on the multiannual and annual Statistical Work Programmes on the information website on the European Statistical System
- Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics (consolidated text)
- Regulation (EU) 2021/690 of the European Parliament and of the Council of 28 April 2021 establishing a programme for the internal market, competitiveness of enterprises, including small and medium-sized enterprises, the area of plants, animals, food and feed, and European statistics (Single Market Programme) (see Annex II on European statistics)
- Eurostat: International cooperation (website)
- Eurostat: International statistical cooperation – Overview (website)
- Eurostat: International cooperation – European Neighbourhood Policy (ENP) countries (website)
- Eurostat: International cooperation – Candidate countries and potential candidates (CPC) (website)
- Eurostat: International cooperation – Pan African Statistics Program (PAS) (website)
- Eurostat: International cooperation – Statistical capacity building tools (website)
- Evaluation of the Commission Support for Statistics in Third Countries (2007)

Eurostat statistical cooperation first point of contact:

- ESTAT-STATISTICAL-COOPERATION@ec.europa.eu

C.7.4. European Commission types of action in statistics

C.7.4.1. OVERVIEW

This section looks at types of statistics actions that the European Commission is often involved in, in order to identify:

- The relation of policies to statistics-related actions;
- European Commission areas of experience; areas where the Commission finances statistics but is not technically involved;
- Examples of current and recent interventions;
- Action points specific to each type of action.

European Commission support for statistical interventions can be categorised into:

- System-wide support at national level;
- Large-scale operations (e.g. population censuses, household surveys);
- Sector statistics intervention, capacity building and / or support for specific statistics production;
- Strengthening regional statistics.

Box 7.2: Action points for statistics interventions

Diagnosis

- The diagnosis of problems and priorities should be drawn from a statistics strategy or should be developed as part of the intervention – see section C.7.1

Strategy

- The statistics strategy (e.g. NSDS) on which the intervention is based must link to the national poverty reduction strategy / national development plan – see section C.6.1
- The statistics that are expected to result from the action must be defined by their use: the policies to be prepared / monitored / evaluated
- There needs to be a clear analysis through the logframe (see Box 6.20 for an example) that shows how the problems diagnosed will be addressed by the planned activities – see section C.6.2 and chapter C.8
- As well as ensuring clear links with the development objectives of the partner countries, national statistics institutes should have the lead at the formulation stage.

Design

- The level of disaggregation of statistics required (e.g. geographic localisation, gender-specific statistics) should be determined by the policy objectives and needs to be specified in general terms as an output. This is not a technical issue. Many of the SDG indicators require such disaggregation, e.g. by sex, by rural versus urban population, by specific disadvantaged groups, etc.; this is often a great challenge for NSIs in developing countries.
- Support for the use of statistics needs to be incorporated into statistics actions and its implementation monitored.

C.7.4.2. SUPPORT TO THE WHOLE STATISTICAL SYSTEM AT NATIONAL LEVEL

A strategic approach to statistics development aims to support a locally owned and led programme to develop the NSS in a comprehensive and co-ordinated way, typically implementing a NSDS and using country systems and procedures for implementation.

Key components of the system-wide approach are:

- A clear nationally owned policy, strategy and programme for official statistics;
- A medium-term expenditure framework that reflects the long-term strategy;
- Systematic arrangements for programming resources;
- A performance monitoring system that measures progress and strengthens accountability;
- Broad consultation mechanisms that involve all stakeholders, including mechanisms for dialogue and coordination across the national statistical system;
- Partner government-led processes for donor co-ordination and dialogue;
- An agreed process for moving towards harmonisation of procedures for budgeting, financial management, procurement, and monitoring and evaluation.

The policy objective of these interventions is often related to governance. Activities include, but are not confined, to statistical capacity building, including:

- Revision of statistical legislation;
- Relations with political level;
- Statistical infrastructure;
- Organisation of the NSS, notably co-ordination of methodologies and establishing a distribution of responsibilities;
- Management of the NSI;
- Direct support to statistics production and dissemination can be included.

This approach responds to beneficiaries' need for support in management and coordination of the statistical system as a whole. In order to ensure sustained political level support and provide a complete diagnosis of the system problems, a statistics strategy such as a National Strategy for the Development of Statistics (section C.6.1) should exist.

Some examples of European Commission programmes that include support for the national statistical system as a whole:

- **Niger:** Programme to support the development of the national statistical system for the promotion of governance and monitoring / evaluation of poverty (PASTAGEP) funded by the European Union (2012-2015). It fell within the framework of support for the implementation of the Action Plan of the National Policy of Civil Registry System in Niger.
- **Eritrea:** Governance and public finance management (PFM) was on the agenda of the National Indicative Programme 2014 to 2020 of the Eritrea-EU cooperation (11 EDF). The programme focussed on macro-economic planning and management (general statistics, regulatory framework, employment and productivity), public financial management (audit, financial statistics, fiscal policy), and the implementation of recommendations accepted by the GSE.

Box 7.3: Action points for system-wide statistics interventions

- In system-wide interventions, there is usually a need to address the legal and regulatory framework and the overall coordination of the national statistical system. Past European Commission projects have often omitted this. The national statistics strategy evaluates this issue.
- There is a need to improve coordination and exchange of information between producers of statistics across the National Statistics System and between national and regional institutions.
- Dissemination and promotion of statistical information needs to be addressed at the design stage by system-wide actions.
- A constraint on population censuses and system-wide statistics actions is often capacity, either a lack of trained personnel or even a lack of potential personnel with appropriate education.

To find out more…

- PARIS21: Guidelines for National Strategy for the Development of Statistics (NSDS) (web version — updated annually)
- PARIS21: NSDS 2.0 in a Nutshell
- PARIS21: A Guide to Using a System-wide Approach to Implement National Strategies for the Development of Statistics (2007)

C.7.4.3. SUPPORT FOR LARGE SCALE OPERATIONS

The largest scale statistics operations are population censuses. The main sources for advice and support for population censuses are the World Programme on Population and Housing Censuses, the United Nations Population Fund (UNFPA) and the UN Statistics Division Census Knowledge Base.

Some examples of European Commission support to large scale operations such as population and housing censuses:

- **Zimbabwe:** The Census 2012 in Zimbabwe
- **Myanmar:** The Myanmar 2014 Housing and Population Census

C.7.4.4. SECTOR STATISTICS SUPPORT AT NATIONAL LEVEL

Sector statistics interventions aim to ensure that statistical information is available for preparing, monitoring and evaluating sector policies. While there can be a focus on ensuring that indicators for sector budget support are available, it is important that the statistics intervention is viewed as producing data for national use according to national priorities. Sector statistics interventions are often mounted as relatively small parts of sector-wide programmes. Sector statistics are addressed in greater depth in the separate Thematic Volumes of this ***Guide***.

Box 7.4: Action points for sector level interventions for strategy development

- The national statistics strategy remains relevant at sector level.
- Institutional links between national statistics institutes and 'line ministries' vary greatly in quality. In principle, these relations should be addressed by the statistical strategy.
- Administrative information can be held within ministries, institutions (schools, hospitals) or other organisations (e.g. private aid bodies). Access to this data and possible support for its improvement may need to be addressed at the decision-making level.

Box 7.5: Action points for sector level interventions to avoid duplicate surveys

- Duplicate surveys are two or more surveys in the same sector or policy field that are separately organised, not coordinated in time and ask similar (but usually not the same) questions. Consequently, they produce differently classified data, most commonly on different geographic classifications. The resulting data is usually not comparable or only comparable to a limited extent.
- Duplicate surveys can arise as a result of demands by donors for data that has defined characteristics or, at worst, must be produced by a specified survey. Most donors in statistics have made undertakings that should permit elimination of these practices. The emphasis on joint planning and joint implementation stipulated by the New European Consensus on Development should be an important driver for better coordination and avoiding duplicated work. The same is the case with the focus on national ownership of development strategies and the central role of national statistical strategies (NSDS or other) in planning statistics activities.
- However, duplicate surveys that have external funding can be a means for statistics producers to support the incomes of their staff where core wages are insufficient.
- Duplicate surveys can only be eliminated definitively when both underlying conditions are removed.
- Survey seeking behaviour by statistics producers can be reduced by ensuring that the statistics system's finances do not depend on donor-supported surveys and that remuneration is comparable between statistical staff of similar grades whether they participate or not in surveys.

Some examples of European Commission programmes providing involving support for sector statistics:

- **Tajikistan:** Technical Assistance to support the Strengthening of the Health Information System (2012-2016). The project purposes were to integrate reliable, relevant and timely routine data with essential statistical data from other sources i.e. civil registration, national statistical office, and vertical programmes, for effective management. To establish the organisational framework needed to ensure high standards of data quality accessible from an integrated data warehouse. To establish effective monitoring and evaluation mechanisms, based on evidence, for assessing health system performance
- **Central African Republic:** The European Commission contributed to improve the school system and guarantee access to primary school to over 191 000 pupils in the Central African Republic by 2018, exceeding the target. The situation in the education sector had deteriorated following the 2013 conflict and successive crises. After 2013, more than a third of all schools had been damaged or occupied by armed groups. The EU intervention also helped ensure capacity building at the Ministry of Education to achieve coherent policies and planning and a reliable statistical system for the education sector in the country.

C.7.4.5. STRENGTHENING REGIONAL STATISTICS

Regional integration requires comparable statistics to inform common regional policies. The regional statistical capacity approach provides economies of scale and good results in terms of harmonisation, comparability and exchange of methods and data. It also provides opportunities for building and strengthening regional networks within specific statistical domains and for exchange of experiences and good practices in a peer-to-peer context. The European Commission has supported regional statistical capacity for regional integration, from the early TACIS and MEDA programmes to recent programmes such as MEDSTAT IV, PAS II, and the statistical component of ARISE Plus, in cooperation with regional and sub-regional organisations such as the African Union, ECOWAS, UEMOA, CEMAC, COMESA, EAC, SADC, PALOP, CARICOM, MERCOSUR, CAN and ASEAN. Regional statistical interventions are described in more detail in section C.8.6.

Informing **regional policies** to encourage free trade areas and customs unions led to support for statistics interventions in **international trade**. **Economies of scale** and an interest in developing the use of **common statistical concepts** led to support for **statistical training** at regional level. These areas, as well as **national accounts**, where the adoption of common concepts is also important, have been consistent areas of European Commission regional statistics interventions. As regional policy interests widen, such as the interest at regional level in the Sustainable Development Goals and their indicators (see section B.4.1.1) and the need for **multilateral surveillance data** for monetary unions, so the range of regional statistics actions has broadened. Nevertheless, the focus remains on economic statistics such as external trade, price indices and national accounts.

Common regional statistics actions have often been based around development and implementation of common statistics tools, such as **Eurotrace** for international merchandise trade and **ERETES** for national accounts (see section C.8.9). The emphasis is now placed on production and dissemination of the statistics concerned. Statistics related training forms an important part of capacity development for statistics (see section C.6.2).

Some examples of recent and on-going large, multi-annual EU financed regional programmes supporting statistical capacity development aimed at strengthening the ability to produce good quality official statistics:

- **Pan African Statistics Programme (PAS I, 2016-2021)**: In January 2016, Eurostat and the Statistics Division of the African Union Commission (AUC) launched the Pan African Statistics Programme as part of the broader EU-funded Pan African Programme, to develop institutional and statistical capacity in the African Statistical System (ASS). The programme supported the implementation of the Strategy for the Harmonisation of Statistics in Africa (SHaSA). In particular, it supported the ASS in implementing its integration agenda and provided support to the newly established Pan-African Institute for Statistics (STATAFRIC). The support was delivered through technical assistance to increase the availability and quality of data produced by the ASS, statistical capacity building through regional trainings and workshops for staff in RECs and NSIs, institutional capacity building through quality assessments and peer reviews, and technical assistance to STATAFRIC.
- **Pan African Statistics Programme (PAS II, 2021-2025):** PAS II, continuing to be part of the broader Pan African Programme, will continue the support in developing institutional and statistical capacity in the African Statistical System (ASS). Through more synergy with other international organisations and EU Member States, it is expected that PAS II will contribute to the collection and analysis of reliable and harmonised statistics, to their dissemination and communication, and to enhance the institutional and coordination capacity of the ASS.
- **MEDSTAT programme**: MEDSTAT is the first EU regional statistical cooperation programme with the Southern Neighbourhood region. The programme was set up to reinforce the statistical capacity of the Southern Neighbourhood countries to develop, produce and disseminate harmonised and comparable data, in line with European and international standards. MEDSTAT has had four phases: MEDSTAT I in 1996-2003, MEDSTAT II in 2006-2009, MEDSTAT III in 2010-2013 and MEDSTAT IV in 2016-2019. MEDSTAT has:
  - contributed to significant progress in the production, availability, quality and comparability of statistics in the region
  - resulted in common methods, tools, knowledge platforms and regional publications.
  - established an extensive network of statisticians and experts in the region
  - brought both statistical decision-makers and experts from the region to the same table, to share and discuss issues related to statistics, together with their EU counterparts.

  The fifth phase, MEDSTAT V, which will run from 2022 to 2025, builds on the achievements of the previous phases as well as respond to both remaining and new challenges. The programme, which will be managed by Eurostat, continues to support the national statistical institutes and systems of the Southern Neighbourhood countries to develop and produce reliable and comparable statistics, in line with European and international norms and standards. It is expected to strengthen further the capacity of the Southern Neighbourhood countries' statistical systems to produce and disseminate more and better quality data in support of evidence-based decision-making, improved governance and democracy. These data will also help the EU to plan and monitor its policies towards these countries.
- **ASEAN Regional Integration Support by the EU (ARISE Plus, 2017-2022):** ARISE Plus consolidates and enhances the results achieved with past EU-ASEAN technical assistance programmes to support the ASEAN Economic Community (AEC) Blueprint 2025, thus supporting greater economic integration in ASEAN and

strengthen its institutional capacity. Among its objectives is to strengthen institutional capacities for managing the integration process, with an emphasis on ASEAN economic integration monitoring and statistics. This includes the operationalisation of the ASEAN Economic Community (AEC) 2025 monitoring and evaluation framework and strengthening the coordination role of ASEAN Community Statistical System (ACSS). Activities cover technical cooperation, advisory services, seminars and workshops, training courses and institutional strengthening, including ICT development.

Box 7.6: Action points for regional statistics interventions

- Regional organisations need to have an explicit statistics strategy and prioritisation.
- Preparation of regional integration actions, including definition of priorities, needs close collaboration with the regional institutions, but the national statistical institutes of the member states of the regional institution must also be positively involved in preparation.
- Regional interventions may require complementary actions at national level.
- Data communications between regional organisations and their member states are likely to become of increasing importance for new actions.

To find out more…

about European Commission and Eurostat support to regional statistics

- Eurostat: International cooperation (website)
- Eurostat: International statistical cooperation – Overview (website)
- Eurostat: International cooperation – Statistical capacity building tools (website)
- Evaluation of the Commission Support for Statistics in Third Countries (2007)

about the Pan African Statistics (PAS) programme (EU support to statistics in the African Union)

- Eurostat: International cooperation – Pan African Statistics Program (PAS) (website)
- Eurostat: Pan African Statistics Programme II, Eurostat presentation to the 9th meeting of the Forum on African Statistical Development (FASDev) 14.12.2020
- Pan African Statistics (PAS) programme: Peer reviews of NSIs/NSSs in African countries: proposed methodology (draft) (2016)
- Pan African Statistics (PAS) programme: Pan African Statistics programme - presentation leaflet
- Africa-EU Partnership: Pan-African Programme (website)
- African Union: Pan-African Institute for Statistics (STATAFRIC) (website)

about MEDSTAT (EU support to statistics in the ENP-South/Mediterranean region)

- Commission Implementing Decision C(2020) 7372 final of 29.10.2020 on the annual action programme part II in favour of the European Neighbourhood Instrument (ENI) South countries for 2020 - Annex 2: Support to the statistical systems of the Neighbourhood South countries (MEDSTAT V)
- Eurostat: Statistical cooperation - European Neighbourhood Policy-South (ENP-S) and MEDSTAT programme (Statistics Explained online background articles)
- Eurostat: ENP-South statistical cooperation and MEDSTAT IV (websites)

about ARISE Plus (support to statistics in the ASEAN region)

- ASEAN: ASEAN Regional Integration Support from the EU (ARISE Plus) (website) and ARISE Plus Component 4: ASEAN Economic Integration Monitoring and Statistics (website)
- ASEAN: ASEAN Regional Integration Support from the EU (ARISE Plus) presentation brochure (leaflet)
- Delegation of the European Union to ASEAN: ASEAN, EU launch flagship programmes on policy dialogue and economic integration (press release; 2018)
- European Union External Action Service (EEAS): Strengthening EU-ASEAN partnership, an urgent necessity (EEAS blog by EU High Representative Josep Borrell; 2020)

C.8 How to manage statistics actions

C.8. How to manage statistics actions

The chapter in brief

This chapter starts at the point when the decision has been taken that a European Commission statistics intervention is justified in order to achieve the goals agreed with its development partners. It gives guidance on how to prepare the various types of projects/programmes to support statistics capacity development and major statistical projects. It also provides practical advice for preparing and evaluating terms of reference at each stage of project/programme preparation; this also includes key points for terms of reference.

The first half of this chapter builds further on the information and discussions already presented in chapter C.7, chapter C.6 and chapter C.5. In particular section C.7.2 'Matching outputs to objectives: the logical framework of a statistics action' provides the basis for the discussion of the different phases of the project cycle for statistics interventions.

The second part of this chapter provides further information on some specific topics of high importance for statistics programmes and projects and for statistical capacity development in particular. These topics include support to the development strategies, management and advocacy for official statistics, support to regional statistical programmes, training and IT for official statistics, as well as support to methodological developments.

C.8.1. Identification / Pe-feasibility

The background for this section is the situation in which:

- Absent or poor quality statistics that do not permit policy measures to be adequately prepared, monitored and evaluated become a significant constraint to achieving policy goals. The goal of overcoming this constraint has normally been incorporated in the country's development strategy and the relevant programming documents (section C.7.1)
- The purpose of an intervention has therefore been outlined in these documents (see sections C.7.1 and C.7.2)

The key outputs of a statistics identification or pre-feasibility study are:

- The intervention's specific objectives are clearly defined: which results are needed to achieve the purpose laid out in the strategy and programming documents?
  - Section C.7.2 discussed the three types of specific objectives common to all European Commission statistics interventions: improvement in statistics production, development of statistical capacity and improvement in the use made of statistics. One or more of these objectives might be relevant.
  - Alternatives for the operational objectives to be delivered by the project / programme are discussed, with a preferred option identified. Section C.7.2 discussed the six common output types at operational objectives level, namely to strengthen: 1) the relationship between statistics and decision makers; 2) the legal and regulatory framework for statistics; 3) the national/regional capacity to provide quality statistics; 4) the international comparability of statistics; 5) the capacity of stakeholders to analyse and use the statistics, and; 6) support to produce and disseminate specific statistics (e.g. censuses, large-scale surveys).
- A first view of the activities to be undertaken. These will be dependent on the nature of the problems identified, and may e.g. involve actions related to the connections and communications between policy makers and statistics producers, the legal/regulatory framework, inter-institutional relationships, establishment or improvement of relevant registers, training to acquire required know-how, technical equipment (hardware, software, buildings, network and internet connectivity), etc.
- Analysis of the linkages between the activities, operational objectives, the expected results and the project purpose. This is particularly important for capacity development projects, where the achievement of planned outputs may or may not lead to the expected results. The analysis should be as complete as possible at this stage and include:
  - The risks and uncertainties, together with the strategy proposed and assumptions made.
  - A first appraisal of means and costs;
  - A first analysis of the financial, coordination and implementation procedures;

Box 8.1 provides a checklist that covers drafting Terms of Reference and evaluating responses for identification or pre-feasibility studies.

Box 8.1: Terms of reference checklist for a statistics identification or pre-feasibility study

Two relevant reference documents to prepare a statistics based action are Standard Terms of Reference for Programme/Project Identification Studies and Standard Terms of Reference for Programme / Project pre-Feasibility Studies, developed by DG INTPA (DG EuropeAid at the time).

This box provides information both on preparing terms of reference for a study and on response evaluation. It is intended to be applied not only in traditional programmes / projects but also in sector-wide programmes, contribution agreements and in actions related to budget support.

1. Study background

Terms of Reference should contain:

- A description of the role of the sectors concerned in the overall programme and the anticipated use of the statistical information that motivates the intervention.
- The discussion should reflect the context of the current international standards and principles such as aid efficiency and transparency, and be in line with the Cape Town Global Action Plan for Sustainable Development Data and the Addis Ababa Action Agenda (chapter B.1) and any NSDS, RSDS or other relevant statistical strategy document (section C.6.1).
- Political sensitivities that can have statistical implications should be outlined.
- Any required institutional framework for the intervention and the likely administrative framework (e.g. budget support, contribution agreement) should be specified, administrative interlocutors should be identified.

2. Study objective

The objective of the study is to identify and outline how to the need for statistical information expressed in the development strategy, programming documents or statistical strategy documents can be met in the best way. The technical proposal should therefore contain:

- Decision criteria in terms of relevance, sustainability and feasibility for whether the preferred option should be accepted.
- Evaluation of technical alternatives. For some large-scale surveys, the final choice of technical alternatives is preferably left to the feasibility / formulation stage.
- Capacity development alternatives: the evaluation should consider the impact of different approaches on the sustainability of the production and dissemination of the statistics. The relevance and likely effectiveness of the capacity development measures should also be considered.
- Frequency and means of technical reporting and monitoring.

3. Issues to be studied

The technical proposal should show how the following issues will be assessed and should identify associated risks and assumptions:

- Confirmation of intervention coherence with strategy / planning documents agreed with European Commission and with the relevant statistical strategy, such as an NSDS for an intervention limited to one country (section C.6.1).
- A statistics intervention is relevant if the results are likely to inform policy decisions in the sector(s) concerned.
- Sustainability, as a proposed intervention will most likely be rejected if there is a perceived or actual lack of sustainability of the statistics resulting from the intervention.
- Technical alternatives: choices with respect to the statistical methodology and approach. These alternatives often concern whether international standards are followed or not and/or how far the statistics can be disaggregated, in particular with respect to disaggregations required by related SDG indicators (by gender, age group, rural vs urban, etc.).
- Capacity alternatives: even in an intervention that aims primarily at improving the coverage and quality of statistical information, there are alternative levels of associated capacity development. The capacity development associated with an intervention also depends on the absorption capacity of the beneficiary.

4. Methodology

The proposed methodology for the statistics identification or pre-feasibility study should ensure that there is sufficient information available to address the points covered in points 2 and 3 above.

The assessment of the National Statistical System (see section C.5.4), for example using Eurostat's 'Snapshot tool' (see Box 5.2), provides a system-wide checklist to assess what is lacking and what is required in order to produce quality statistics. This can be focused on specific sectors where appropriate. For proposed statistics interventions in specific sectors, see the respective sector chapters in the thematic volumes of this Guide.

The assessment of the National Statistical System should focus on issues related to the unavailable (or unreliable) statistics that make policy formulation, monitoring and evaluation difficult. It should at least cover the following issues (see also section C.5.2):

- Technical aspects of statistics production (methodology, organisation, data processing tools and procedures, work schedule, technical and human resources).
- Capacity development: examination of the links between actions and results, and the need for development of a National Strategy for the Development of Statistics (section C.6.2).
- If possible, address the unsolved technical problems. If this is not possible at this stage, a thorough technical study must be done within the formulation study.
- Identify supports to statistics within related domains; experiences drawn from these supports; potential regional co-operation projects in which the partner country has been involved.
- Analysis of the overall budget, of the envisaged mechanisms of co-ordination and management.
- In the statistical domain, the methodology section should always plan:
- Meetings and contacts with users and stakeholders (e.g. in form of workshops).
- Examination of the last National Statistical System publications (paper, electronic and online).

Expertise Required

- Experience of institutional and technical aspects of official statistics, plus knowledge of the administrative environment, will be preferred to in-depth technical expertise in statistics.

To find out more…

- Institutional Assessment and Capacity Development, European Commission, DG International Partnerships (DG EuropeAid at the time) (2006)
- Standard Terms of Reference for Programme/Project pre-Feasibility Studies
- European Commission, DG International Partnerships: Project Cycle Management Guidelines (2004)
- Evaluation of the Commission Support for Statistics in Third Countries (2007)
- New European Consensus on Development (2017)
- European Commission: SWD(2018) 444 final A Revised EU International Cooperation and Development Results Framework in line with the Sustainable Development Goals of the 2030 Agenda for Sustainable Development and the New European Consensus on Development (2018)
- Regulation (EU) 2021/947 of the European Parliament and of the Council of 9 June 2021 establishing the Neighbourhood, Development and International Cooperation Instrument – Global Europe
- DG International Partnerships: Global Europe - Neighbourhood, Development and International Cooperation Instrument (website)
- European Commission – DG International Partnerships: European development policy; see in particular the sections on the renewed European Consensus on Development, Development effectiveness, Joint Programming, and Policy coherence for development
- European Commission – DG International Partnerships: Effective development cooperation – Does the EU deliver?
- Commission Staff Working Document SWD(2019) 20 final: 2019 EU report on Policy Coherence for Development
- European Commission – DG International Partnerships: Aid transparency; Strategic evaluations – Assessing the quality of EU development aid; Project and programme evaluations
- European Commission: Better Regulation Toolbox; Tool #34 Developing countries
- European Commission Communication COM(2011) 638 final: 'The future approach to EU budget support to third countries' (2011)
- European Commission – DG International Partnerships: Budget Support Guidelines (2017)
- European Commission – DG International Partnerships: Budget support website
- Commission Staff Working Document SWD(2015) 198: Collect more – Spend better: Achieving development in an inclusive and sustainable way

C.8.2. Feasibility / Formulation

This step aims to confirm the project's relevance and feasibility and to produce a detailed plan. The project's intended partners should play a fundamental role at this step. A **design study** may be at the core of the work performed at this step.

Again, this study should focus on the following elements:

- Achievement of the analysis of the institutional capacity of the concerned statistical service or of the whole national statistical system.
- In-depth analysis of the problems, varying according to the type of project (global capacity development, sectoral assistance, participation to a wide-scope statistical operation).
- Consistency with other ongoing or planned supports.
- Precise definition of overall objectives, specific objectives, results and activities.
- Role of technical assistance in the implementation; definition of the terms of reference for consultancies. (Technical support usually takes the form of either a transfer of competence to the beneficiary institution's staff or of provision of additional human resources.)
- The partner's ability to absorb the technical advice, including the detection of potential negative effects of technical assistance on the whole national statistical system (see section C.8.6).

Box 8.2: Elements for terms of reference of a design study for a statistical project

Background for the assignment

Put the mission back in the context of development aid efficiency and transparency and the partner country's development strategy and results framework, as well as of the satisfaction of the users of statistics: specify whether the project is initiated and managed by the national/regional partner or whether it results from a request from external donors (the European Commission especially).

Specify the type of statistical support requested: global statistical capacity development, statistical assistance within the framework of a sectoral programme or a specifically dedicated project, participation to a large-scale statistical process.

Specify the role of the National Statistical System during the mission, in particular which National Statistical System body will be involved.

Lay out the trends agreed by the European Commission and the partners at the end of the identification phase.

Objectives of the mission

Provide information allowing to make a decision on the idea of the suggested statistical support project (acceptance, refusal, modification) and to communicate all technical and financial items necessary for the preparation of a financing convention.

Issues to be studied

Analyse the coherence of the proposed project with the development strategy and the statistical development strategy of the partner. The analysis should consider lessons learned from previous interventions in the partner region/country or addressing similar challenges in other regions/countries, though evaluations, impact analyses, result-oriented monitoring exercises, etc.

Analyse the future project stakeholders, their motivation, institutional power, relationships, internal structure and management ability. In the course of the study, the degree of co-operation and co-ordination between the National Statistical System stakeholders must be accurately evaluated. If a project aims to support sectoral statistics, the relations between the statistical service in charge of producing the sectoral information and the institutional stakeholders concerned should also be analysed. In addition, data users (institutional, private as well as the general public) should be taken into account.

Analysis of the stakeholders institutional abilities:

- The users: who are they? What do they think of the available data? What is their image of the NSS/NSI? How do they express their requests? What are their relations with the NSS?
- Structure, organisation and co-ordination of the NSS. Legal framework for statistics and political influence on statistical activities, independence of NSS.
- Status and organization of the NSI/statistical services involved in the project: type of management, mission, strategy, planning of work, monitoring and evaluation, administrative and financial management (procedures, reporting), staff management (job description, payment, recruitment, skills, motivation).
- If necessary, statistical role of the regional organisation vis-à-vis its members states (mission and practice) and co-operation/coordination modes with the governments, organisation and internal coordination regarding statistical activities, means allocated to statistical activities.

To facilitate this analysis, Eurostat has developed a specific tool, 'Snapshot,' to be used by EU Delegations or other interested partners. The Snapshot analysis can be complemented by other sources of information, such as a recent peer review (see section C.7.4.5. for further information about support to peer reviews, for example through the Pan African Statistics Programme (PAS I, 2016-2021)).

Identify and analyse the problems to be handled by the project (e.g. SWOT analysis of the NSS/NSI and its statistical processes).

Identify the in-progress or past supports to statistics within the domain or in related domains; experiences drawn from these supports. Check the coherence with other in-progress or planned supports

Check the absorption capacities: due to the implementation of poverty reduction policies, NSSs have been increasingly demanded to set up various surveys. Coordination of these actions is sometimes difficult, because NSIs from less-developed countries have limited methodological and technical means for achieving co-ordination.

Define in a detailed way the global objectives, the specific objectives, the results and the activities. Draw up the logical framework matrix. The implementation of a NSDS is a priority for the development of statistical abilities.

Describe the monitoring system of the project: in case of a regional project, the system used for the follow-up of local level activities must be very well described. The monitoring system should be as integrated as possible into the key partner's own monitoring system. For participation to large-scale projects, the monitoring system will have to be fully integrated into the project's own system.

Identify assumptions and risks. In statistical projects, assumptions and risks often relate to the following matters:

- Delays in the project implementation (e.g. legal framework, provision of national resources).
- Availability and stability of the national statistical teams.
- Perpetuation of the project results.
- Role of the technical assistance at the implementation stage and terms of reference for consultants, especially as regards the transfer of competences towards and the provision of additional human resources for beneficiary institutions (e.g. sub-contracting).

Methodology

In the statistical domain, the methodology section should always plan:

- Meetings with users and project key stakeholders: public institutions, international organisations, trade organisations and major actors in the domain in case of a sectoral project, non-trading companies (political representation, press, NGO).
- Examination of the last National Statistical System publications (paper and electronic/online versions).
- When the study is completed, discuss the proposal of project with the partners. This allows to collect concrete feedbacks and to supplement the information relating to the project ownership and risks.

Required expertise

For this type of mission, the expertise will mainly depend on the type of project considered during the identification stage. A multidisciplinary team should be involved comprising experienced statisticians (also for each domain considered) and an expert in capacity development (with knowledge of the administrative environment in the country).

C.8.3. Implementation

C.8.3.1. START-UP PHASE

Several months (even years) may pass between the collection of information in the field during the formulation phase and the project's effective start-up. Meanwhile, the project background may have been modified by certain events or operations. The information must be updated in the start-up phase and potential impacts on the project must be evaluated. If need be, adaptation measures should be taken.

The updating process should include all effective changes regarding:

Global statistical capacity development:

- Legal framework of the statistical activity,
- Work on the National Strategy for the Development of Statistics,
- Organisation and functioning of the National Statistical System and the National Statistical Institute; functioning of the services producing statistics elsewhere.
- National Statistical Council planned or implemented.

Sector support to statistics:

- List of statistical data collection operations planned in the sector. Such a list may impact the methodology, the collection operations as well as the data processing.
- Other supporting statistical projects related to the sector, started or planned.

At the end of the start-up phase, the list of activities relating to the project should be updated; this applies also to the work plan. The terms of reference for potential technical advice may be reviewed and complemented.

C.8.3.2. IMPLEMENTATION PHASE

The project team should pay close attention to the timeliness of project results. In statistical capacity development actions, timeliness is not only dependent on planned actions (training, programmes, procedures and tools); timeliness often depends on decisions to be taken or legal acts to be introduced by the beneficiaries. This includes e.g. the official announcement of a census date. The progress in making such decisions (legislation, regulation, budget, staff, other means) has to be carefully monitored.

In particular, the monitoring system must include the funding mechanism. Indeed, starting up certain tasks requires corresponding financial means to be made available. Large operations often depend on joint financing or on national budget participation. This could be the case e.g. for the training of interviewers, printing of questionnaires, interviewers' and controllers' fieldwork. On-time funding can be crucial. A late start-up of certain tasks may substantially impact survey results. For example, the choice of the observation period of household expenses depends on civil and religious holidays; the choice of the observation period for harvesting depends on the agricultural cycle.

As a consequence, any delay in finalising tasks previous to fieldwork may profoundly impact the quality of information.

Statistical operations such as surveys or censuses are heavy operations. They involve a number of tasks and require big teams (thousands of people may be mobilized). Stringent planning and close monitoring are required. The rules of monitoring, set up during the start-up phase, are an important factor in the operation's achievement. All of the operation's partners and stakeholders should be kept informed.

The data processing and results analysis phases depend on few people in comparison to the data collection operations in the field. Although reaching the end of the operation, these phases should be subjected to the greatest attention by the staff concerned. A statistica**l operation is not closed until all results have been disseminated and analysed**. It happens too often that only a small part of the survey is really utilized or that a late use makes the information irrelevant.

C.8.3.3. FINAL PHASE

The final phase is essential because it concerns the ownership of the project results. In any kind of statistical project, this phase must include the preparation of the final report and the **archiving of all information**. The importance of electronic archiving should be borne in mind, especially in the case of surveys as, due to their costs, they involve heavy investment. The comparison with older data is of high importance in analysing a survey and in interpreting its results… as far as these data are available!

For projects involving the setting-up of periodical operations of data collection, the transfer of ownership of the new system to the national team which will be in charge of the future operations is a very important phase. The future team manager's participation in the project will pave the way for successful national/regional ownership. Such a transfer should be planned in the same way as a service transfer and should include:

- Transfer of **documentation** on the methodology of the survey (design, questionnaire, fieldwork organisation) and on the training of teams;
- Transfer of **information technology** processing and dissemination tools: programmes, documentation and training;
- Transfer of the **data and metadata** that have been collected or produced (as well as archived) during the course of the project;
- Transfer of the **survey report,** with a section devoted to data quality.
- This transfer is particularly important for the **sustainability** of the project.
- Table of assessment criteria and standards at the implementation step.

C.8.4.Evaluation

The EU has reinforced the role and practice of evaluation in its activities to improve the evidence base of its interventions and policies and encourage a learning culture. The EU's evaluation policy is defined in the document *'Evaluation Matters - The evaluation policy for EU development cooperation'* (2014). Evaluations serve the double purpose of increased effectiveness of international cooperation for development through learning from experiences, while providing more transparency and accountability towards stakeholders and the general public.

Evaluation aims at an as impartial as possible appraisal. It either takes place during the implementation (mid-term) or at the end of the operation (ex post). The evaluation provides an opportunity to learn lessons from the support provided by the European Union.

Strategic evaluations analyse EU strategies from conception to implementation at several levels: country, region, sector, and financing instruments over a longer period. The general overview they provide and their related recommendations serve as basis for the drafting of new policy and programming documents.

Project and programme evaluations are evaluations at intervention level. They are used to assess performance, provide explanatory factors, and gather lessons learned. Project and programme evaluations are the responsibility of EU delegations or the operational unit in charge of the project or programme evaluated.

The EU has developed and formalised a methodology for evaluating its external assistance in which priority is given to results and impacts. The online ' Methodological bases and approach' wiki webpage presents the methodological guidelines designed to facilitate the move towards an evaluation practice focused on programmes and strategies in European Commission development cooperation.

The **mid-term evaluation** of statistical projects (or programmes with a statistical component) will be carried out if lessons learnt from the first implementation phase could lead to abridging, re-directing or otherwise amending the activity programme. Such an evaluation should be carried out in any of the following cases:

- the implementation is taking a long time (more than two years);
- numerous and complex activities have to be carried out in the frame of the projects or programmes (population census; wide-scope surveys, surveys requiring large samples);
- projects or programmes presenting innovation in the methodology, the data collection methods or even the processing or dissemination phases. In this case, a pilot-study is usually conducted for testing. It is appropriate to make an assessment just after the pilot-study;
- projects or programmes largely depending on decisions to be made or actions to be undertaken by the partner country.

Ex-post evaluations are generally well worth their costs:

- when the European Union's support follows a medium-term approach;
- when the support to statistics is provided as part of a more global sector support;
- when the socioeconomic context is radically changing.

The lessons learnt can greatly enhance the efficiency of the support to statistics.

As for any European Commission project, the assessment criteria used are relevance, performance, efficiency, impact and sustainability. Within each criterion, specificities of statistics which have to be carefully observed are the following:

EVALUATION CRITERIA FOR STATISTICAL PROJECTS

Relevance	Do the project objectives aim at solving the problems identified in the provision of statistical information for the definition and monitoring of development (maybe sector) policies? Are they consistent with the NSDS? Has the analysis of the beneficiaries (within and outside the NSS) been correct in the light of the implementation? The analysis of intra-beneficiary relations and of the institutional context will be verified in a similar way. The risks might be re-assessed.
Effectiveness	Mid-term assessment: do the means committed fit with the effective results? Are the means that have been committed (by the project and by the beneficiaries) comparable to those used in past similar operations (surveys having resulted in similar data or regarding similar domains) To which extent have the stakeholders committed to the monitoring process? How far have they committed to integrating this process in the current process of the implementing institution? Did the project enable the institution to improve in this domain?
Efficiency	Sectoral statistics: are the expected data available? Are they of good quality (or has the quality improved?), in respect to the criteria of statistical quality. Global statistical capacity development: to what extent have the results helped to implement the NSDS?
Impact	Sectoral statistics: what is the appraisal of the sector managers on the project impact? Global statistical capacity development: how deeply did the project impact the rest of the NSS works?
Sustainability	Sectoral statistics: do the ownership of the project results and the beneficiary service resources enable future data production on a periodical basis? Global statistical capacity development: are the results sustainable in terms of NSS human, technical and financial inputs (budget, software and hardware, staff considering the expected turnover)?

Again, a checklist for terms of reference of an evaluation of a statistical project is suggested. The presentation uses the general reference framework described in Chapter 9 of the 'Project'.

These specific elements can apply to final as well as to mid-term evaluation.

An example of terms of reference of an evaluation study in the statistical field is given in Box 8.3.

Box 8.3: Elements for terms of reference of an evaluation of a statistical project

Background of the assignment

- Put the mission back in the context of aid efficiency and of the satisfaction of the users of statistics: specify whether the project is managed by the national/regional partner or whether it results from a request from the donors (the European Commission especially).
- Specify the type of statistical support requested: global statistical capacity development, statistical assistance within the framework of a sectoral programme or a specifically dedicated project, participation to a large-scale statistical process.
- Prepare a chronological description of the project.
- Specify the role of the National Statistical System during the mission, in particular which National Statistical System body is involved.

Objectives of the mission

- Provide the necessary information for assessing project realisations and drawing the lessons of the project before deducing general recommendations for projects on statistical cooperation.

Issues to be studied

These questions are linked to the seven evaluation criteria retained by the European Commission: relevance, efficiency, effectiveness, impact and sustainability, coherence and added value of the Commission.

Relevance:

- Has the implementation of the project confirmed the initial analysis undertaken in the pre-feasibility and formulation stages?
- Has the project brought an answer to the true needs?
- Had the problems underlying the statistical support been correctly identified during their analysis and do they still reveal to be the true problems? If not, did the project adapt in order to answer to the true problems and needs?
- Has the logical framework been coherent and complete?

Efficiency:

- Have the different activities attained the objectives, at the expected quality and cost levels and according to the initial time schedule? The following issues should be checked: daily monitoring, cost and price to quality ratio, stakeholders' contribution, technical assistance and monitoring.

Effectiveness:

- How have the results allowed reaching the specific objectives of the project?
- Global statistical capacity development: has the behaviour of the NSS vis-à-vis users and data diffusion changed? Has cooperation inside the NSS developed concretely? Has the operating system of the NSS changed? Have these changes brought the expected improvements?
- Sectoral statistical support: are the responsible (Partners, Delegations) of the sectoral Development programmes satisfied with the statistical data provided: coverage of the field of observation, quality of the data?
- Had the risks been correctly assessed, in particular regarding the adoption of the different regulations, the operating mode of the key partner, the staff's mobilisation?

Impact:

- To what extent has the progress in statistics achieved by the project contributed to improve and develop the "management for results"? Has the follow-up of poverty reduction policies been reinforced consequently?

Sustainability:

- Have the positive effects of the projects been extended beyond the project?
- Have the stakeholders been kept mobilised around the objectives of the project all over its duration?
- Will the authorities respect their decisions vis-à-vis the development of statistical capacities? For example the commitments undertaken in the framework of the NSDS or pertaining to the change in National Statistical Institute's statutes.
- Will the organisation providing sectoral data be able to carry on the production of new data with the same level of quality?
- Computing science playing an important role in statistics, have the technological choices made during the project been relevant? Will the tools be maintained?

Coherence:

- Is the project, in the end, still coherent with the development priorities of the partner, the CSP and with the support of other partners? Supports occurred in the course of the project but not formerly identified should not be omitted.

Value added of the Community:

- To what extent can the contribution of the Community be compared to a similar contribution that would have been provided by one of the Member States of the European Union?

Required expertise

- For this type of mission, it is necessary to combine a double expertise in evaluation and in statistics, completed by a good knowledge of the administrative environment of the countries in the area.

To find out more…

- European Commission and European External Action Service: Evaluation Matters - The evaluation policy for EU development cooperation (2014)
- DG International Partnerships: Work Programme for Strategic Evaluations 2019-2023
- DG International Partnerships: Evaluation methodological approach (wiki website)
- DG International Partnerships: Rapid Assessment for Capacity Development (RAC) (wiki website)
- European Commission: SWD(2018) 444 final A Revised EU International Cooperation and Development Results Framework in line with the Sustainable Development Goals of the 2030 Agenda for Sustainable Development and the New European Consensus on Development (2018)
- European Commission – DG International Partnerships: Effective development cooperation – Does the EU deliver?
- European Commission – DG International Partnerships: Aid transparency; Strategic evaluations – Assessing the quality of EU development aid; Project and programme evaluations
- European Commission: Better Regulation Toolbox; Tool #34 Developing countries
- Commission Staff Working Document SWD(2015) 198: Collect more – Spend better: Achieving development in an inclusive and sustainable way

C.8.5. Support in strategy and management; advocacy

Section C.5.3 demonstrated that support to statistics cannot be reduced only to support in statistical methodology, but must be complemented by support in statistical strategy and management.

The 'Evaluation of the Commission support for statistics in third countries' (2007) noted that:

- "Neither the coherence of national statistical systems nor the need for efficient "statistical coordination" was systematically taken into consideration"
- "No statistics projects or programmes really addressed the design and functioning of the statistical system as a central coherent element of public administration; this resulted in more limited impact on the statistical systems as a whole"
- "Responses that focused only on specific indicators created a risk of fragmentation of the statistical system."

More recent projects correct these drawbacks and introduce elements aiming at:

- improving statistical coordination, in line with the guidelines given un the UN Statistical Division's 'Handbook on Management and Organization of National Statistical Systems' (2021) (see section B.1.3.4) and the experiences gained in the European Statistical System;
- transforming the NSI into a more autonomous public administrative body, in line with the UN Fundamental Principles of Official Statistics and the respective Statistical Code of Practice or Statistical Charter (see section B.2.1.2);
- providing tools for:
  - the programming of activities (such as the Generic Statistical Business Process Model (GSBPM) and the Generic Activity Model for Statistical Organizations (GAMSO) – see section C.5.3.3);
  - the management of financial resources;
  - the development of human resources (see section C.6.2.2);
- in parallel providing resources to the statistical services of line ministries, in particular the ministries responsible for social affairs, health and education, given their importance in the poverty reduction strategy;
- successfully completing such new objectives requires **non-statistical types of support**, including potential technical advice in:
  - legislation;
  - public administration;
  - budget and external funds management;
  - marketing;
  - strategic planning;
  - human resource management;
  - staff training;
  - communication;
  - foreign languages;
  - etc.

A global strategy has been designed for fragile states and states emerging from critical situations such as crises or wars, in order to take into account their specific situation (see Box 8.4).

An important effort still needs to be made in **advocacy for the use of statistics** in decision-making. Poor dialogue with data users remains a characteristic of a number of National Statistical Systems in developing countries. Improvement of this dialogue should be included in any strategic plan of development of statistics.

PARIS21 has organised several international meetings and developed several tools and resources that can be helpful for national statistical institutes that are developing communication strategies and need to develop their communication with the media. Among others, PARIS21 has a program of training and national workshops to help statisticians better communicate on data and figures as well as to help journalists better understand statistics.

Furthermore, PARIS21 has produced a 'Country-level Advocacy Toolkit' to aid data producers in their dialogue with all partners from the data ecosystem, in particular in the context of the 2030 Agenda for sustainable development. This exchange is a fundamental step in the NSDS design process and is used to advocate, as widely as possible, for statistical capacity development. Further details on how PARIS21 can help with advocacy efforts are outlined in the 'Advocacy at a Glance' leaflet. To aid NSS managers and statisticians in developing countries with their advocacy work, PARIS21 also maintains a large library of advocacy materials from regions and countries across the world as inspiration and reference.

Box 8.4: Strategies for fragile states and states emerging from critical situations such as crises or wars

Statistical information needs are crucial not only for the definition, implementation and monitoring of consolidation programmes of fragile states, but also for the programmes of humanitarian aid and reconstruction in countries emerging from crisis and war situations. However, in these countries, valuable statistical information is rare or even missing altogether.

In many fragile countries, administrative structures are failing for total lack of operating budget or lack of staff. The National Statistical System is unable to fulfil its mission and does not produce regular statistical information any more. Some statistical data may keep being produced, but presenting some drawbacks such as discontinuation of samples, partial geographical coverage due to low security in the fieldwork. Data collected often have little significance. Nevertheless, these operations continue to mobilise people who will be of great help once normal statistical work can be resumed.

In such fragile countries, only surveys are able to respond (often only partially and in limited areas) to the most important information needs regarding poverty. The implementation of light household surveys will enable the capture of household demographic characteristics, income and expenditure data, employment and unofficial activities. To conduct this work, existing teams within the NSS are called upon.

In countries emerging from crisis and war situations, priority has to be given to promptly gather the minimum two types of statistical information that allows aid programmes to be defined:

- Information on the state of the population: large moves of population occur during these periods, sometimes leading to a decrease in some age classes (emigration, deaths). Census data do not reflect the country's current situation any longer.
- Information on the conditions of the economic and social infrastructures: transport, public buildings and housing, industrial and commercial infrastructures.

In such cases, it is often impossible to design a heavy data collection campaign such as a census, because the necessary administrative structures no longer exist. Therefore, a demographic survey on a sample of households is generally conducted, complemented by an assessment of the infrastructures on the sample of geographical units to which the selected households belong. Such operations face several difficulties. First, local teams have to be re-constituted to carry out fieldwork, data analysis and the dissemination of results. As far as possible, NSS-experienced staff is favoured. Secondly, it is necessary to build representative samples while the sample frames either no longer exist, or are completely outdated. This work is most commonly carried out within the framework of a project linked to the reconstruction programme.

In both cases, the aim is to favour the re-launching of statistical activities as a preliminary to any reconstruction of statistical capacities. This reconstruction should be part of the general reconstruction programme or support for administrative capacities.

After periods of war or crisis, non-governmental organisations (NGOs) are often the only organisations present in the country. They generally possess data stemming from their internal management that could be used as a basis for roughly estimating the population in their activity area. Before launching any national statistical operation, contact with the NGOs is essential. The information they may provide will be used in defining the survey sample. In the absence of local authorities, they could also relay the information about the population.

The UNECE also promote good practices in dissemination and communication by statistical organisations. This includes issues such as social media, apps, APIs and open data, digital publishing, credibility of official statistics, statistical literacy, communication with the media, and managing dissemination and communication functions and links to data collection. A key resource is the UNECE's 'Making data meaningful' series, containing four parts covering respectively data storytelling, presentation of statistics, communication with media and statistical literacy.

To find out more…

- PARIS21: Supporting country communications (website), providing links to helpful tools and resources for national statistical institutes developing a communication strategy
- PARIS21: Guidelines for developing a communications strategy for National Statistical Offices (2019)
- PARIS21: Advocating for the National Strategy for the Development of Statistics – Country-level Toolkit (2010); Advocacy at a Glance (leaflet); library of Country and Regional Advocacy Materials (website)
- PARIS21: 'Counting down poverty: the role of statistics in world development'; 'Measuring up to the measurement problem: the role of statistics in evidence-based policy-making' (2005) and 'Counting down poverty: the role of statistics in world development' (leaflet)
- United Nations Economic Commission for Europe (UNECE): Dissemination and communication (website)
- United Nations Economic Commission for Europe (UNECE): Making Data Meaningful: Part 1: A guide to writing stories about numbers (2009); Part 2: A guide to presenting statistics (2009); Part 3: A guide to communicating with the media (2011); Part 4: A guide to improving statistical literacy (2014)

C.8.6. Regional and sub-regional (multi-country) projects

C.8.6.1. MULTI-COUNTRY PROJECTS

In development co-operation, the terms 'region' and 'sub-region' generally correspond to geographical areas comprising a number of countries. The United Nations defines five main world regions (Africa, Americas, Asia, Europe and Oceania) and twenty-one sub-regions. The World Bank defines six regions (Sub-Saharan Africa, Europe and Central Asia, the Middle East and North Africa, South Asia, East Asia and the Pacific and Latin America and the Caribbean).The term 'region' can also refer to regional organisations (e.g. ECOWAS, the Economic Community of West African States). (To avoid confusion, one should bear in mind that in national statistics, 'regional' normally refers to sub-national areas (e.g. provinces, states).)

The New European Consensus on Development (2017) recognises the importance of regional partnerships for implementation of the 2030 Agenda and for strengthening the statistical capacity to produce and analyse data to inform policy and decision-making, in particular for measuring progress towards the SDGs:

> *"Regional agreements, frameworks, strategies, partnerships and policies in relation to all developing countries will be guided by the Consensus and be based on common goals, principles and values. They will promote the implementation of the 2030 Agenda at regional level with partner countries, including those in Africa, the Caribbean and the Pacific, as well as in Latin America and Asia.*
>
> *[. . .]*
>
> *The EU and its Member States will boost the statistical capacity of developing countries, including through strengthened capacity for the production and analysis of data, to inform policy and decision-making. This data should be disaggregated where possible by income, gender, age and other factors, and provide information on marginalised, vulnerable and hard-to-reach groups, inclusive governance and other issues, consistent with the EU's rights-based approach. It will also include investments in stronger statistical institutions at sub-national, national and regional level, and the use of new technologies and data sources. The EU and its Member States will encourage their partner countries to include the voices of marginalised communities in monitoring the SDGs and to promote concrete mechanisms to this end."*

The increasing regional dimension of European Union statistical projects was already highlighted by the 'Evaluation of the Commission Support for Statistics in Third Countries' (2007). Statistical projects at regional level may:

- support a policy aiming at regional integration;
- meet the political needs of a regional organisation;
- provide support in the context of regional partnership agreements;
- support statistical schools and training centres.

The 'Evaluation' pointed to two factors that were important for the success of regional programmes: the existence of a regional institution serving as a link between the donor(s) and the member countries of the region; and the institutional and technical strengths of the member states' national statistical institutes. The 'Evaluation' recommended that the regional approach should be continued and enhanced, in particular by better utilising the competences and means of regional and sub-regional organizations with statistical responsibilities

The normal project cycle management methodology can be applied to regional statistical co-operation projects. However, throughout the project cycle, matters deriving from their regional dimension have to be taken into account: the mandate of the regional organisation, the capacity of the regional organisation to animate a network of national and international stakeholders, the possible existence of a strategy for statistics at regional or at continental level, the expected level of integration and the related statistics needed.

The European Commission's Communication COM(2008) 604 'Regional integration for development in ACP countries' proposed an approach for EU support to regional integration for African-Caribbean-Pacific (ACP) development. This support has been founded on the basic principles of the Cotonou Partnership Agreement (signed in year 2000, extended to November 2021): ownership, dialogue and sustainable development.

Indeed, the growth of regional bodies has been a significant trend since the 1990s. Across the ACP countries, numerous regional organisations have emerged. The EU and the ACP countries continue to rely on a multi-level system of governance that allows taking action at the most appropriate level (national, regional, continental or ACP), in line with the principles of subsidiarity and complementarity.

Subsidiarity is a key guiding concept for regional development projects and programmes. It is in the interest of all partners involved to deal with issues at the level that will maximise the efficiency and effectiveness of the activities. This is also vital to strengthen the feeling of ownership amongst decision-makers at both regional and national level and strengthening their commitment to the statistical programmes and projects. It is also important with respect to alignment of the statistical programmes and projects with both regional and national development priorities. However, strong co-ordination and monitoring is crucial to assure that efficiency and effectiveness are realised.

PARIS21 has developed an approach to develop and implement Regional Strategies for the Development of Statistics (RSDS). An RSDS is a masterplan for regional statistical development, providing guidance to good practice in regional statistical co-operation. It is linked to national and regional priorities and is consistent with the NSDS of the member states of the regional organisation. It is formulated with the objective of responding to specific regional policy objectives, providing an action plan that will meet the information needs of regional integration policies. It should ensure that the statistics from the NSSs are comparable, by applying international standards and good practices.

The RSDS aims at facilitating the development of a regional statistical system, as well as data with a strictly regional dimension (e.g. on climate change or on common water resources). The RSDS is complementary to the national NSDS processes, and vice versa. Success factors are political commitment at the highest regional and national levels, constructive dialogue between data producers and users, availability of required resources and co-ordination with technical and financial partners. The PARIS21 approach is presented in a dedicated website [https://nsdsguidelines.paris21.org/node/289] and in the booklet 'The RSDS Approach in a Nutshell'. The PARIS21 overview page on RSDS [https://paris21.org/rsds] also that also contains several examples of RSDS: Association of Southeast Asian Nations, CARICOM Community, Comunidad Andina, Pacific Community, Southern African Development Community, South Asian Association for Regional Cooperation.

In its final report 'Coordination of statistical capacity building programs at the sub-regional level', the Coordinating Committee for Statistical Activities (CCSA) Task Team on Co-ordination at the Sub-regional Level argued that an RSDS should be the basis for co-ordinating donor assistance and for ensuring that development assistance is well targeted. The RSDS should be based on the NSDSs in place, on general regional development strategies and on a detailed assessment of the strengths and weaknesses of the regional statistical system.

C.8.6.2. REGIONAL ORGANISATIONS WITH A STATISTICAL MISSION OR COMPONENT

The motivation and role of regional organisations for development of statistics were presented in section B.2.4.2, which also lists a number of regional organisations with statistical activities (see Box 2.33). Strengthening regional trade and/or economic development is often the core objective of regional organisations. To monitor this development and evaluate the impact of regional policies, comparable statistics covering all member states of the organisation is required.

Regional statistical co-operation often involves a regional statistical system that operates under a regional statistical steering committee, which is normally composed of chief statisticians from the regional organisation's member states. The steering committee meet regularly to guide the implementation of the regional statistics strategy, statistical capacity development and action plan. In many cases, these activities are coordinated and facilitated by a statistics secretariat, often organised as an office or department within the central commission of the regional organisation.

Regional organisations promote and support the implementation of common standards in the member states, e.g. common classifications, methodologies and quality systems (see section C.8.6.3). Regional data series and indicators compiled by regional organisations are normally generated on the basis of data reported by their member states. Thus, the departments responsible for statistics in the regional organisations need effective communication of data from the NSIs of their member states, as well as access to international statistical databases.

STATAFRIC, the African Union Statistical Institute, is based in Tunis and provides support to all member states of the African Union, i.e. all countries on the continent [https://au.int/en/ea/statistics/statafric]. It has a central role in supporting the implementation of the provisions of the African Charter on Statistics and the Strategy for the Harmonization of Statistics in Africa 2017-2026 (SHaSA 2). It is at the centre of the promotion and production of harmonized official statistics in Africa and carries out a range of different activities to strengthen statistical capacity and the quality of statistics across Africa, both by itself and in cooperation with the EU and other donors. STATAFRIC itself is an outcome of SHaSA's objectives *'To establish an effective coordination mechanism'* of the strategic theme '*To coordinate the production of quality Statistics for Africa'*.

The European Union has been supporting STATAFRIC from its inception through the Pan African Statistics Programmes (PAS I (2016-2021) and PAS II (2021-2025)). PAS has been providing technical support to STATAFRIC among others for the update of the Strategic Plan for 2019-2023 in view of the Agenda 2063, SHaSA 2, the 2030 Agenda and other key strategies and agendas, as well as for a proposed roadmap to establish an action plan, a staffing strategy and a work programme (see also section B.1.2.4).

For development partners providing support to statistics at regional level, capacity development is often a major concern, both at regional (for the statistical secretariats or units of the regional organisations) and at national level (for the national statistical systems of their member states). In general, communication and co-ordination is essential. A good practice to improve co-ordination and involve national stakeholders in the regional process is to identify or designate national focal points. This generally improves communication and feedback and strengthens the member states' sense of ownership and involvement in the regional process.

The regional organisations are also in a position to exploit economies of scale by working closely with their member states on common statistical needs. In particular, this concern training of staff (see section C.8.7), building up IT infrastructure, databases and software (see section C.8.9), etc.

When the number of professionals in each member state needing a specific training is small, it may be more efficient to organise such training sessions at regional level. This also has the added value of creating a forum for exchanging and

discussing professional experiences and good practices across the member states. However, practical considerations and costs may be prohibitive. Alternatively, economies of scale may also be achieved through running the same training courses in individual member states or by setting up elearning courses.

Common statistical software also creates economies of scale, both in software development, introduction, maintenance and training. The use of common software enables the development of local expertise and makes training and support more efficient.

AFRISTAT is an example of a sub-regional body with an exclusively statistical purpose. Its statistical functions as a regional organisation are presented in Box 8.5.

Box 8.5: A sub-regional statistical body: AFRISTAT

AFRISTAT is a sub-regional organisation with an exclusively statistical purpose. Its goal is to support the development of statistics in its member states, with an emphasis on economic, social and environmental statistics. AFRISTAT currently comprises 19 member states. Its headquarters are located in Bamako, Mali.

AFRISTAT responds to the need for regional economic integration through its support for comparable statistical information. It has statutory power in terms of harmonisation of concepts, standards and statistical methods. Its member states define a work programme, which is implemented by operations to support collection, processing and dissemination of statistical information and its economic analysis.

Sources: AFRISTAT (the Economic and Statistical Observatory of Sub-Saharan Africa) (website)

C.8.6.3. RANGE OF REGIONAL STATISTIC PROJECTS

Improving regional organisations' use of statistics in their policy formulation, analysis and evaluation is one of the key motivations and aims of regional projects (see also section B.2.4.2). Generally, regional and international organisations do not involve themselves in the collection of data, but rather on ensuring that their member states work in a coordinated manner towards commonly agreed goals. The aim is to provide data for the organisation's member states that are as comparable as possible, in order to provide stakeholders at all levels with information for viable analyses of regional development, comparisons of individual countries and a consistent evidence base for policy decisions and monitoring. These stakeholders include decision makers at regional level as well as on national level, donors, international organisations, NGOs, analysts and researchers, media and the general public.

For regional organisations with a mission to strengthen regional economic integration, multilateral monitoring is essential to pursue the objectives of regional integration and convergence of the economic policies of the member states. In this context, the quality, comparability and timeliness of macro-economic statistics are of high importance. Furthermore, donor decisions on country resource allocation use macro-economic statistics as a key input (see section B.3.3.1); thus, the availability, reliability, comparability and timeliness of these macro-economic statistics are vital. This also applies to a number of social and environment statistics.

Regional organisations may also focus on other areas. For regional organisations of developing countries, a key area is progress towards the Sustainable Development Goals, including social issues such as poverty and hunger, health and education, gender equality, as well as environmental sustainability. The need for specific disaggregations e.g. by gender, age, rural versus urban regions, etc., raises major challenges for many statistical systems.

The CCSA Task Team on Coordination at the Sub-regional level distinguished between two types of regional statistics projects: Projects that support regional integration and strengthen the statistical capacity of regional organisations and projects supporting national statistical systems through a regional approach.

The first group of projects often support several objectives: development and application of common classifications, methods and definitions for the member states of the regional organisation; promotion of common data collection programmes using harmonized methods; collection, compilation, dissemination and analysis of statistical data for the region. Typically, the key activities include one or more of the following:

- Strengthening co-ordination and management of regional statistics, including the regional legal framework;
- Developing and strengthening regional statistical infrastructure, including harmonisation of definitions and classifications and development of databases;
- Investment in appropriate infrastructure, especially information and communication technology (see section C.8.9);
- Support for regional data collection activities and for the compilation of harmonized regional statistics;
- Supporting data dissemination;
- Human resource development (see section C.8.7).

The second group of projects covers those aimed at improving the capacity of national statistical systems, with support organised and delivered at regional level. Such projects and programmes are especially interesting if the countries in the region covered are small, they have a common background, a common language and/or face similar challenges regarding their statistical systems.

A considerable share of the European Commission's funding for statistical development is channelled through regional and sub-regional organisations and programmes such as the African Union through the Pan African Statistics Programme 2021-2025 (PAS II) and ASEAN through the ARISE Plus 2017-2022 programme (see section C.7.4.5 for more details).

Based on its review of regional programs and operations of the World Bank 1995-2005, the World Bank's Independent Evaluation Group (IEG) concluded that there seem to be five key determinants of success for any regional program:

- Strong country commitment to regional co-operation;
- The scope of objectives has to match both national and regional capabilities;
- There needs to be clear delineation and coordination of the roles of national and regional agencies;
- Acceptable governance arrangements take time to be put in place, but are crucial;
- Planning to sustain the benefits once the program comes to an end must be built in from the beginning.

In a more recent evaluation, 'Data for Development: An Evaluation of World Bank Support for Data and Statistical Capacity' (2017), the World Bank's IEG developed a list of features of successful national data systems of the future:

- Institutions based on: Open data laws; Rights to privacy; Accountability to users; Broad outreach to society; Harmonized data conventions.
- Organisations that have: Budgetary autonomy; Trained staff; Adequate installations; Connected databases; Early warning systems; International partnerships.
- Data that are: Up to date; Disaggregated; Easy to manipulate and visualize; Accessible in remote areas; Georeferenced; Contestable; From integrated data sets.
- Users who are: Connected; Data literate; Diverse (e.g., academics, civil society organizations, media, and local and central governments).
- Data uses: Planning; Policy making; Monitoring; Targeting; Research; Advocacy; Lobbying; Citizen empowerment.

Compilation of regionally comparable data involves procedures for data transfer from the member states to the regional level. These procedures should define the list and format of data to be transferred, the transfer mode and the transfer schedule. A lack of timely data in a member state (or even late transfer) disturbs the production process of regional statistics; dependent on the context, estimations may be used for the country concerned. However, in the longer term this is not a satisfactory solution. The issues preventing timely transfer of national data should be addressed together with the country concerned, in order to seek permanent solutions to assure the availability of national data. This issue highlights the importance of efficient co-ordination at regional level and of good communications with the focal points or coordinators at national level.

Box 8.6: Example: The African Trade Statistics Yearbook and production of trade aggregates for the African Union and the RECs

The African Trade Statistics Yearbook was prepared by STATAFRIC, the African Union Institute for Statistics, using data provided by the AU Member states. The Trade Yearbook was produced with the support of the European Union through the Pan-African Statistics Programme 2016-2021 (PAS I). The Trade Yearbook is the result of close collaboration between STATAFRIC, statistics departments and divisions of the Regional Economic Communities and national statistical offices, customs authorities and other institutions responsible for trade statistics in the AU Member states.

Significant efforts were allocated to compile trade aggregates for each of the eight Regional Economic Communities and for the African Union as a whole. The compilation of trade aggregates for the African Union is a first step towards harmonisation of practices and methodologies for preparation of trade statistics across the AU Member states.

Compilation of trade statistics is a high priority for the African Union and its Member states. With the adoption of the 'Agenda 2063: The Africa We Want' in 2013 and its first ten-year implementation plan, a number of aspirations, objectives and targets are related to trade. Thus, various trade policies need to be enacted.

In addition, in January 2012, the Assembly of Heads of State and Government of the African Union adopted a decision to establish the African Continental Free Trade Area (AfCFTA). The main objectives of AfCFTA are to create a single continental market for goods and services, with free movement of business, persons and investments, and thus pave the way for accelerating the establishment of a customs union. Due the COVID 19 pandemic, the operationalisation of AfCFTA was postponed to January 2021

In this context, harmonised and high-quality trade data are very important to support trade negotiations. There is a need to get comprehensive, detailed and reliable statistics on merchandise trade in African Union. Moreover, detailed Intra- and Extra-African Union trade statistics are needed to evaluate the effectiveness of the measures taken by African leaders to boost Intra-African trade, which have a high impact for the economic development of the continent.

Reliable foreign trade statistics for Africa must be available to all who need them. STATAFRIC is putting maximum effort to ensure availability of the needed statistics.

Source: African Union: African Trade Statistics Yearbook 2020 (2020)

In Africa, the African Union Commission, the African Development Bank, the United Nations Economic Commission for Africa and the African Capacity Building Foundation have cooperated to develop the 'Strategy for the Harmonization of Statistics in Africa 2017-2026' (SHaSA 2). SHaSA 2 highlights the priority statistical requirements for the African Union's vision for the future of the continent, "Agenda 2063: The Africa We Want" and of the Agenda 2030 for Sustainable Development. It defines four Strategic themes:

- Strategic theme 1: Produce quality statistics for Africa;
- Strategic theme 2: Coordinate the production of quality statistics for Africa;
- Strategic theme 3: Develop sustainable institutional capacities of the African Statistical System
- Strategic theme 4: Promote a culture of quality policy and decision-making

The African Union statistical institute STATAFRIC plays a central role in the implementation of SHaSA 2 and its strategic themes and objectives.

SHaSA 2 is supported by a ten-years Action Plan, a Financing Plan and Resource Mobilisation and Financing Strategies. The Action Plan constitutes a common statistical initiative of the African Statistical System (ASS). The framework used to prepare it is the Results-Based Logical Framework Matrix (RBL-FM) derived from the strategic matrix of SHaSA 2 (see also section B.1.2.4).

Box 8.7 Example: Practical issues in a region-wide statistical data collection – the UEMOA harmonised price index

Each UEMOA state produces a harmonised price index. It is based on a methodology common to all eight member states. In each member state, data are collected on a monthly basis and a monthly index is calculated using the same software (so-called CHAPO). The data are transferred to the UEMOA Commission every month and are used in the calculation of the UEMOA regional price index.

Occasionally, member states were unable to produce their index for several months due to a hard-disk failure in the computer that was hosting CHAPO. The consequence was that during this time, due to a very basic technical problem, the UEMOA Commission was unable to produce the UEMOA regional price index.

This example illustrates the importance to regional projects of proper routines and contingency plans at both regional and national level. Furthermore, it clearly shows the critical importance of proper ICT structures and equipment for transmission of data and administration of common software solutions (see also section C.8.9).

When harmonisation is deemed the most appropriate approach to improve comparability of member states' data, harmonisation objectives must be defined in a realistic way. Two approaches to harmonisation could be envisaged:

- **Harmonisation of concepts, nomenclatures and methodologies:** International recommendations are adjusted to the specific requirements of the regional organisation's member states and to their situation regarding statistical capacity and the development of the statistical system.
- **Harmonisation of tools:** Common statistical and technical tools are defined and put in place. When processing tools in the regional organisation's member states are missing or of poor quality, the conditions for developing and/or implementing shared tools are favourable, leading to higher efficiency, stability and comparability at lower costs.

Box 8.8: Examples: Regional harmonisation of methodologies and tools – PARSTAT 1-2-3 surveys and COMESA statistical software support and training

Harmonisation of statistical methodologies:

In the framework of PARSTAT, the statistical part of the UEMOA Community programme to support regional integration (PARI), the same methodology for observing the informal sector (1-2-3 survey) was shared by the member states Benin, Burkina Faso, Ivory Coast, Mali, Niger, Senegal and Togo. The 1-2-3 survey was based on the principles of modular mixed mode (household/enterprise) surveys. The use of a harmonised methodology made it possible to analyse the size and the characteristics of the informal sector across the UEMOA and between its member states. The same methodology has since been applied in e.g. the Democratic Republic of Congo, Burundi and Vietnam.

Source: Union Économique et monétaire Ouest Africaine (UEMOA): L'emploi, le chômage et les conditions d'activité dans les principales agglomérations de sept États membres de l'UEMOA and Razafindrakoto, M., Roubaud, F. and Torelli, C.: 'La mesure de l'emploi et du secteur informels : leçons des enquêtes 1-2-3 en Afrique', African Statistical Journal, Volume 9 (2009)

Harmonisation of statistics processing tools:

The COMESA States have chosen the Eurotrace software suite, developed by Eurostat, to produce their external trade statistics. The choice of a common software solution has enabled the development of local expertise and the COMESA Secretariat has continuously provided training and technical support to Eurotrace installations in its member states. Regional trainings have been organised on an annual basis, where participants from each member state have been invited to the COMESA secretariat for one or two week trainings, with the ultimate objective of sharing the acquired knowledge with their colleagues back in the NSI. However, the high turnover of staff in the NSIs and the redeployment of staff to other units lead to rapid loss of the acquired expertise. I response to this challenge, the COMESA Secretariat has developed an e-learning platform and e-learning course material for Eurotrace, called E-Eurotrace.

Source: Eurotrace (website), Eurotrace User Community (website) and COMESA's e-Learning portal (website)

C.8.6.4. INSTITUTIONAL ISSUES

Coordination is crucial to regional projects. A strategy for coordination of the project should be defined from the outset. One should keep in mind that the actors are not only the official statisticians; governments have to have awareness of the importance of quality statistics to evidence-based policy making. Governments are both key users of statistics and responsible for strategies and resource allocation, on national level as well as on regional level, through their role in the decision-making processes of the regional organisations.

Advocacy for statistics is thus an important action in the context of regional and national commitment to statistics, their harmonisation and their inclusion in regional and national development strategies. The regional approach may strengthen the national advocacy efforts for statistics, by building pressure on governments to comply with at least the minimum of the requirements of the regional project.

Effective advocacy for statistics, both in terms of promoting evidence-based decision making as well as ensuring that statistical activities are properly financed and resourced, is crucial to the development of national statistical systems. PARIS21 has developed a range of statistical advocacy materials and an advocacy tool-kit and maintains a library of regional and national advocacy (see section C.8.5).

A key question is who will co-ordinate the regional project. Several options are feasible; a regional organisation with a dedicated statistics function is often a natural coordinator. Alternatively, one of the national statistical institutes or other national institutions involved may take on a coordinating role. Another solution would be to establish an ad-hoc coordination entity for the specific regional project.

Often, regional projects involve a number of different stakeholders at national level. It is a good practice to use national focal points/coordinators to coordinate the networks of national stakeholders and activities at national level, when possible.

User-orientation is a key aspect of statistical quality (see section C.5.3). However, the user group for regional statistics is wider than the user group outlined in Box 2.29. Obviously, governments within the region are key users, both in their function as national decision makers and through their role in the decision-making processes of regional organisations. Commissions or Secretariats of regional or sub-regional organisations are other key users, requiring consistent regional data and comparable national data for multilateral monitoring of policies and national compliance, for evaluating the progress of regional integration, etc. International organisations are also important users of national statistics, and thus have a strong interest in the comparability of national statistics and their consistency with international principles, standards and good practices. Donors and other technical and financial partners also require regional and national data.

C.8.6.5. PROJECT ISSUES

The scope of regional projects is linked to the mandate of the regional organisations, their capacity and their ability to coordinate with their member states. Each regional organisation has its defined mandate and objectives; this will naturally also limit the domain and the scope of project they can deal with.

There is no standard approach or rule that can be applied to all regional projects; regions are simply too different. The importance of efficient coordination and a well-designed strategy for the project must be underlined. However, there are some core principles to be considered:

- User relevance
- Efficiency of a regional versus a national approach
- Advocacy and commitment of regional and national decision-makers
- Integration in and consistency with general development strategies at regional and national level
- Coordination strategy
- Subsidiarity
- Capacity development
- Sustainability of results

Training and capacity building are crucial. Regional projects must have a realistic approach regarding the available IT environment and the expected investment in IT. The sustainability of the investment in IT infrastructure and associated human capital is critical for the long term viability of the project, on regional and on national level.

Training is also a key part of statistical capacity building. A regional approach may often prove efficient for training on specific statistics-related issues. Regional organisations are well situated to co-ordinate and set up training programmes to meet the needs of its member states. If regional trainings are arranged centrally, a budget for travel costs must be included. Alternatively, the same training courses can be offered in individual member states, thus reducing the travel required to the instructors, or by setting up elearning courses. Issues concerning training for official statistics are further described in section C.8.7.

To find out more…

about the regional dimensions of European Commission support to statistics

- Eurostat: International cooperation (website)
- Eurostat: International statistical cooperation – Overview (website)
- Eurostat: International cooperation – Pan African Statistics Program (PAS) (website)
- Eurostat: Pan African Statistics Programme II, Eurostat presentation to the 9th meeting of the Forum on African Statistical Development (FASDev) 14.12.2020
- Eurostat: Statistical cooperation - European Neighbourhood Policy-South (ENP-S) and MEDSTAT programme (Statistics Explained online background articles)
- Eurostat: ENP-South statistical cooperation and MEDSTAT IV (websites)
- Commission Implementing Decision C(2020) 7372 final of 29.10.2020 on the annual action programme part II in favour of the European Neighbourhood Instrument (ENI) South countries for 2020 - Annex 2: Support to the statistical systems of the Neighbourhood South countries (MEDSTAT V)
- Delegation of the European Union to ASEAN: ASEAN, EU launch flagship programmes on policy dialogue and economic integration (press release; 2018)
- Eurostat statistical cooperation first point of contact: ESTAT-STATISTICAL-COOPERATION@ec.europa.eu
- European Commission Communication COM(2008) 604: Regional integration for development in ACP countries
- Evaluation of the Commission Support for Statistics in Third Countries (2007)

about statistics in a regional or sub-regional context

- African Charter on Statistics
- African Development Bank, African Union Commission and UN Economic Commission for Africa: Strategy for the Harmonization of Statistics in Africa (SHaSA) and Strategy for the Harmonization of Statistics in Africa 2017-2026 (SHaSA 2)
- UN Economic Commission for Africa: Statistical Commission for Africa
- African Union: Conference of African Ministers responsible for Civil Registration
- African Union: Pan-African Institute for Statistics (STATAFRIC)
- Pan African Statistics (PAS) programme: Peer reviews of NSIs/NSSs in African countries: proposed methodology (draft) (2016)
- Pan African Statistics (PAS) programme: Pan African Statistics programme - presentation leaflet
- ASEAN: ASEAN Regional Integration Support from the EU (ARISE Plus) (website) and ARISE Plus Component 4: ASEAN Economic Integration Monitoring and Statistics (website)
- ASEAN: ASEAN Regional Integration Support from the EU (ARISE Plus) presentation brochure (leaflet)
- World Bank Independent Evaluation Group (IEG): Data for Development: An Evaluation of World Bank Support for Data and Statistical Capacity (2017)

about Regional Strategies for the Development of Statistics (RSDS)

- PARIS21: Regional Strategies for the Development of Statistics (RSDS) - Overview (website) and The RSDS Approach in a Nutshell (leaflet)
- PARIS21: Regional Strategies for the Development of Statistics – Methodological approach (website)
- Association of Southeast Asian Nations (ASEAN): ASEAN Community Statistical System (ACSS) – Two decades of cooperation in statistics (online video)
- Caribbean Community (CARICOM): Caribbean Community (CARICOM) Regional Strategy for the Development of Statistics (RSDS) 2019-2030 and CARICOM Regional Statistics (website)
- Comunidad Andina (CAN): Estadística (website) and Programa Estadístico Comunitario (PEC) 2018-2022
- Pacific Community: A Pacific Island region Plan for the Implementation of initiatives for strengthening statistical services through regional approaches 2010-2020
- Southern African Development Community (SADC): Regional Strategy for Development of Statistics 2013 - 2018

C.8.7. Statistical training

Human resources management and training are essential parts of statistical capacity development. Training in the context of strengthening the capacity of national statistical offices and national statistical systems to efficiently produce quality statistics in line with international standards and user needs were already described in section C.6.2.2 'Capacity development through training of human resources'.

The European Union has funded a number of projects for the initial training of statisticians (scholarships, study awards, funding and other assistance to statistical training schools) as well as for vocational training.

These actions have been largely appreciated. The 'Evaluation of the Commission Support for Statistics in Third Countries' indicated that:

> *"Particular improvements could be observed in partners' capacity to collect and process data, in early warning indicators and regional trade data, in the conduct of surveys, and in a move towards adoption of internationally recommended practices."*

Training courses, covering face-to-face trainings, video seminars as well as e-Learning courses, are part of Eurostat's activities to support the statistical capacity development in partner regions and countries. They are important and integral parts of Eurostat regional cooperation programmes Pan-African Statistical Programme, MEDSTAT and ARISE Plus (see section B.1.2.4 and C.7.4.5). In addition, training courses are arranged and supported on a case-by-case basis on request from regional organisations or national statistical offices in partner regions. Eurostat's training offers focus on key issues of statistical capacity development and issues where Eurostat and the European Statistical System has specific expertise and experience, in particular the statistical capacity tools developed by Eurostat and specific software tools for official statistics that have been developed with support by Eurostat.

Eurostat regularly organises, in collaboration with partner statistical institutions, seminars that bring together statisticians across a region. These seminars focus on a range of themes, such as topics relating to the assessment of statistical systems, statistical governance or quality issues.

In addition, Eurostat occasionally organises an 'International Study Visit' (ISV) at its premises in Luxembourg, aimed at staff of National Statistical Offices from non-EU countries. The topics covered include governance, legislative framework, how Eurostat staffs, plans and finances its activities, how the different actors (Eurostat, EU Member States etc.) work together. There are also presentations on Eurostat and the ESS practice within individual statistical domains. The speakers are all Eurostat staff.

Most of the initial training activities have been developed at the sub-regional level and have succeeded in creating regional networks of statisticians who often keep in touch after their initial education. This is a very important long-term effect, in that it enables South-South and peer-to-peer learning and creates support networks for key statistical tools that reinforces national and regional ownership of know-how and practical experiences.

Many UN organisations and other international organisations, such as UNSD, UNDP, UNPE, ILO, FAO, WHO, World Bank, IMF, PARIS 21, Regional Development Banks and UN regional commissions, have developed training courses aimed at statistical capacity building in developing countries and regions. In addition to traditional face-to-face training courses, the proliferation of more stable internet connections and higher bandwidths coupled with technical progress, have seen a rapid growth in web seminars, e-learning solutions and mixed-mode solutions also in the field of statistical training and capacity development. The COVID-19 pandemic has strongly accelerated this process.

Vocational training is particularly necessary in **new information and communication technologies**, with an emphasis on their application in analysis and dissemination, as well as **new and untraditional data sources** within the so-called **'Data Revolution'** and new **models for modernising official statistical organisations, systems and processes** (see section C.5.3.3). But vocational training is also justified to help statisticians to adapt to the national and global development agendas. Statisticians educated a decade ago have probably not been trained in the production of environment or governance statistics or in the analysis of gender issues.

Experience has shown that such **training is often more efficient at sub-regional level**. However, there are also limits to the possibilities for arranging training at regional level, such as different language skills or too different competence levels between the countries.

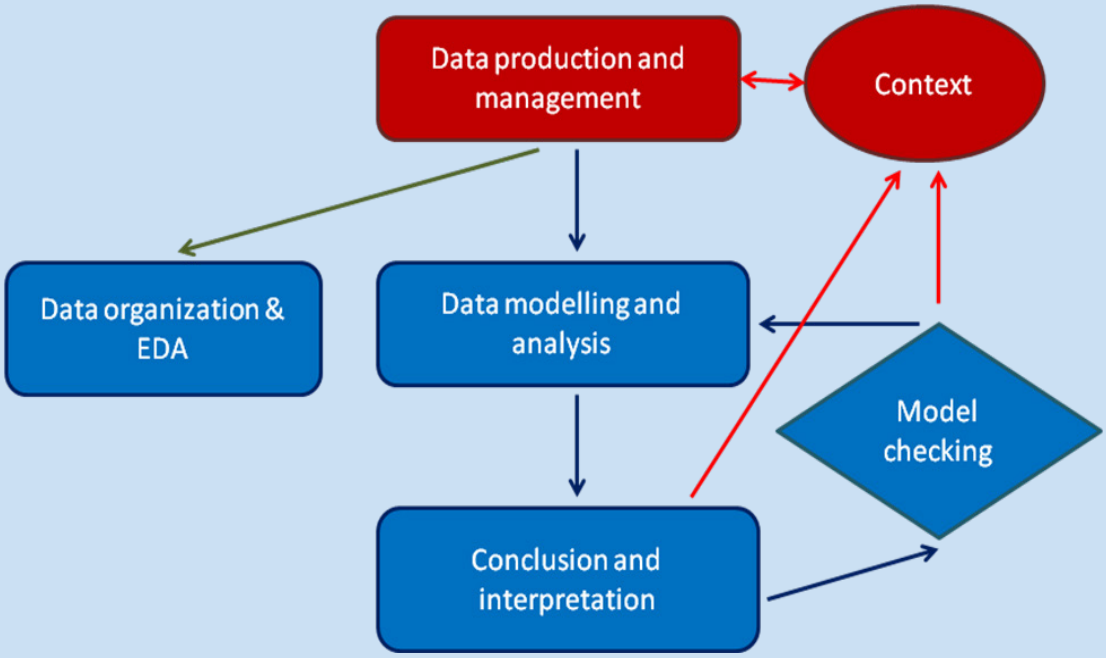
A number of Statistical Training Centres have been set up in Africa. In addition, many statisticians have been trained outside the region. However, Africa still lacks statisticians and related professionals, in particular with up-to-date knowledge of new statistical subjects, methodologies and tools. In response, more and more African countries have created national training centres within their NSI or co-operate with national universities to further the education of statisticians.

The adoption of the African Charter on Statistics and the Strategy for the Harmonization of Statistics in Africa (SHaSA) has given strong impetus to cooperation between regional organisations, regional economic communities, national statistical offices and others in strengthening the statistical capacity in Africa. The Strategy for the Harmonization of Statistics in Africa 2017-2026 (SHaSA 2) has formed the basis and provided the vision for establishing the African Union Statistical Institute, STATAFRIC, and the Pan-African Statistical Training Centre (PANSTAT), based in Yamoussoukro, Ivory Coast. The European Union is supporting the development and activities of these key African statistical institutions through the Pan African Statistics Programme 2021-2025 (PAS II).

STATAFRIC is cooperating with international partners to arrange virtual trainings and workshops on strategic planning for data and statistical development. PANSTAT has in its mission to coordinate and harmonize training in statistics and demography in Africa and support capacity building, training and research in statistics and demography. It also acts as an accrediting body for Schools of Statistical Training in Africa.

Box 8.9: The gap between university education and skills used in National Statistics Offices

Most of the work of the National Statistical Institutes (NSIs) is concerned with the red area (*Data production and management)* of the diagram below, while universities focus mainly on the blue area (*Data organization and exploratory data analysis; Data modelling and analysis; Conclusions and interpretation; Model checking)*. The participants of a SADC 'training of trainers' workshop were asked to estimate the proportion of time spent in the red and blue areas. Participants from NSIs said that they spent over 95% of their time in the red area, while universities said they spend 100% of their time in the blue area. Participants saw this distinction as the reason why most university graduates need further training before they are efficient in jobs in the National Statistics Systems (NSS).



The issue is how to close the gap or how to provide sustainable alternative or complementary training. Solutions may be different between regions and linguistic areas, on the basis of different educational and administrative structures.

Source: SADC Secretariat, European Development Fund and Eurostat

To find out more…

- Eurostat: International statistical cooperation – Sharing values and practice (website)
- Global Network of Institutions for Statistical Training (GIST): Courses Inventory (website)
- African Union: Strategy for the Harmonization of Statistics in Africa 2017-2026 (SHaSA 2) (website); STATAFRIC, the Pan-African Institute for Statistics (website) and PANSTAT, the Pan-African Statistical Training Centre (website)
- United Nations Economic Commission for Europe (UNECE): Human Resources Management and Training – Compilation of Good Practices in Statistical Offices (2013)
- PARIS21: PARIS21 Academy (website)
- Asian Development Bank/Development Asia: Designing Online Courses for Statistical Capacity Building (website)
- Dag Roll-Hansen: In-house training in statistical organisations – Some issues to consider and suggestions for courses, Statistics Norway Documents 31/2012 (2012)
- Centre d'Appui aux Écoles de Statistique Africaines (CAPESA) (website)
- Food and Agriculture Organization of the United Nations (FAO): Capacity development – How to assess learning needs (website)
- World Health Organization (WHO): Evaluating training in WHO (2010)
- United Nations Economic Commission for Europe (UNECE): Making Data Meaningful - Part 4: A guide to improving statistical literacy (2014)
- African Group on Statistical Training and Human Resources (AGROST): Statistical Training Programme for Africa (STPA)
- UN ECA – African Centre for Statistics (for AGROST): 'Trends of statistical training and human resources development in Africa'; 'Statistical training needs and capacity assessment'; 'Compendium of African Statistical Training Centres' (in French); 'Review of the statistical training curricula in Africa' (in French); 'Harmonization and standardization of statistical curricula and qualifications' (2011)
- United Nations Economic Commission for Africa: Global Strategy for Improving Statistics for Food Security, Sustainable Agriculture, and Rural Development: Action Plan for Africa 2011-2015 – Training Component (2012)

C.8.8. Other support

Training remains a core aspect of statistical capacity development (see sections C.6.2.2 and C.8.7). However, at each step of the statistical process, support can take a number of other forms, depending on the needs of the partner country or region:

Developing statistical infrastructure:

- Implementing modern frameworks and models for operation of national statistical systems, such as the Generic Statistical Business Process Model (GSBPM) and the Generic Activity Model for Statistical Organisations (GAMSO), as well as the Generic Statistical Information Model (GSIM), the Common Statistical Production Architecture (CSPA) and the Common Statistical Data Architecture (CSDA) (see section C.5.3.3);
- Implementing relevant recommendations of the UN Statistics Division's Handbook on Management and Organization of Statistical Systems (see section B.1.3.3);
- Providing Geographical Information System (GIS) software to help in the design of a census or of a sample for another survey;
- Providing ICT hardware and software, for instance for building and maintaining business registers, person registers, administrative registers, etc., for contacts with data providers and contacts with data users and for use as sampling frames;
- Methodological and general documentation of all core activities, processes and tools;
- When internet access is limited or unstable, making sufficient paper copies of relevant international classifications, standards and methodologies available to the data producers concerned;
- Ease the access to internet;
- Spread information on cost-effective methodologies and good practices that have been developed in other countries.

Data collection:

- Standard questionnaires: for household surveys, the International Household Survey Network (IHSN) offers useful information, including a Question Bank which provide a repository of international questionnaires, interviewer instructions, classifications, concepts and indicators; IHSN with actual country questionnaires; advice on the key principles of questionnaire design (see section B.1.2.1)
- The Accelerated Data Program (ADP) helps countries improve their survey programs and increase the use and value of survey data. ADP provides technical and financial support to survey data documentation and dissemination, and to the improvement of survey methods (see section B.1.2.1);
- The World Population and Housing Census Programme maintains a key knowledge base and resource centre for countries that are planning a population and housing census, one of the key sources to detailed and disaggregated data required e.g. for the SDG indicators (see section B.1.2.1).

Data processing:

- Modern statistical software, which is more and more efficient. Key examples of tools that strengthen statistical capacity in developing countries are Eurotrace (statistics on international trade) and ERETES (national accounts). Eurostat was central in the development of Eurotrace and ERETES, and actively supports implementation, training and developing practitioner networks (see section C.8.9);
- Implementation of SDMX standards for transfer of statistical data. Eurostat actively supported the development of SDMX together with a network of key international organisations, and SDMX is extensively used within the European Statistical System. Eurostat has set up an SDMX info space on its website, and actively promotes the take-up and implementation of SDMX in developing countries and regional organisations, including sharing of own experiences and good practices and training offers (see section C.8.9);
- Development of standard tools for processing surveys, automation of the production process for short-term indicators;
- Archiving tools. (For example, the establishment of national survey databanks is one of the key outputs of the Accelerated Data Program's work with developing countries).

Analysis:

- Modern statistical software offers more and more powerful analytical tools (see section C.8.9);
- Examples of similar analysis made in other countries.

Dissemination:

- A GIS software is needed to present data broken down by district. This may attract new users and uses, for example decision makers at local levels and detailed analysis of how poverty, health supply and supply of education is distributed between local districts;
- Providing standard tools for dissemination of databases to the general public;
- Tools for visualisation of data, e.g. for online dissemination through websites and social media platforms;
- Tools to design websites.

From the list above, it is obvious that the supply of **new ICT tools**, both on the hardware side and the software side, play a major role. Of course, the supply of such tools must come together with the training needed to use them properly.

To find out more…

- High-Level Group for the Modernisation of Official Statistics (HLG-MOS): working areas Human resources, organisational frameworks and evaluation; Statistical production, methods and information technology; Data collection and data sources; Dissemination and communication, and; Standards and metadata.
- Generic Statistical Business Process Model (GSBPM) (Version 5.1, January 2019)
- Generic Activity Model for Statistical Organisations (GAMSO) (Version 1.2, January 2019)
- Generic Statistical Information Model (GSIM) (Version 1.2, August 2019)
- Common Statistical Production Architecture (CSPA) (Version 2.0, 2019)
- Common Statistical Data Architecture (CSDA) (Version 2.0, 2019)
- Data Documentation Initiative (DDI) website; IMF Factsheet on DDI
- United Nations Statistics Division (UNSD): Handbook on Management and Organization of National Statistical Systems (wiki online page; Beta v2.3 as of September 2021)
- United Nations Statistics Division (UNSD): Global Inventory of Statistical Standards (website)
- International Household Survey Network (IHSN) (website)
- Accelerated Data Programme (website)
- UN Statistics Division: Household Sample Surveys in Developing and Transition Countries (2005)
- UN Statistics Division: World Programme on Population and Housing Censuses (website)
- UN Statistics Division: Census Knowledge Base (website)
- United Nations Population Fund (UNFPA) – Census website
- PARIS21: Data visualization toolkit (website)
- PARIS21: Guidelines for developing statistical capacity – A roadmap for capacity development 4.0 (2020)

C.8.9. Support for IT in statistical capacity development

The existence and the proper management of an appropriate Information and Communication Technology (ICT) system is essential to produce modern statistics and is a key component of a sustainable statistical capacity. This applies not only to the NSIs and their regional offices, but also to all other statistics-producing agencies within the NSS. The NSS in many developing countries faces problems caused by a lack of modern computer and networking equipment, suited to the tasks at hand, sometimes coupled with instable internet connections and power supply. ICT is important in the whole statistical process: from registers (sampling frames), via sampling, data collection and processing, data storage, data transfer, to analysis and dissemination.

In response to these challenges, ICT has a natural, integrated role in several development cooperation programmes addressing statistical capacity and statistical systems. However, national statistical offices and other producers of official statistics often encounters specific challenges that require software solutions specifically designed to overcome such issues. Common regional statistics actions have often been based around development and implementation of common statistics tools.

Eurostat has been central in the development of several very useful tools for national statistical offices, statistical departments in national organisations and regional organisations, supporting development, implementation as well as training in these tools. Eurotrace is an application for collection, compilation and dissemination of external trade data at national and regional level. It is a generic and open system able to be adapted to national and regional requirements and to most types of statistics. It is used by customs administrations and national statistical offices in countries across the world. Eurotrace has an active user community with exchange of experiences and advice. The 'Common Market for Eastern and Southern Africa' (COMESA) has developed e-Learning courses on Eurotrace (see Box 8.8). Eurostat continues to support training in Eurotrace, through its regional projects like the Pan-African Statistical Programme 2021-2025 (PAS II), MEDSTAT 2021-2026 (MEDSTAT V) and ARISE Plus 2017-2022 (see section C.7.4.5), in addition to training arranged in other regions.

Also in the important domain of national accounts has Eurostat been developing a specialised software solution together with INSEE, the French national statistical institute. ERETES is an application used for the elaboration of national accounts according to the SNA 2008. It is used in around 30 countries all over the world. Main programmes concerning the implementation are carried out in Africa and in Latin America and are funded by different partners. Through the Pan-African Statistics Programme, Eurostat supported the of training for trainers on national action plans for implementation of ERETES and the SNA 2008, organised by the African Union and the UN Economic Commission for Africa for the African Regional Economic Communities. Eurostat provides support to ERETES training also within other programmes and to other countries.

SDMX is an initiative to develop and implement standards for the exchange of statistical information. It is sponsored by Eurostat together with the Bank for International Settlements (BIS), the European Central Bank (ECB), the International Monetary Fund (IMF), the Organisation for Economic Cooperation and Development (OECD), the United Nations (UN) and the World Bank. Eurostat has supported several trainings in SDMX for developing countries.

In addition to these statistical tools, Eurostat has also supported the development of some more specialised tools. One of these is JDemetra+, a tool for seasonal adjustment developed by the National Banks of Belgium and Germany in cooperation with Eurostat. JDemetra+ is recommended to the members of the European Statistical System and the European System of Central Banks for seasonal and calendar adjustment of official statistics. JDemetra+ implements the concepts and algorithms used in TRAMO/SEATS and X-12ARIMA. Besides seasonal adjustment, JDemetra+ includes other time series models, including outlier detection, nowcasting, temporal disaggregation and benchmarking. JDemetra+ is a collection of reusable and extensible Java components, easily accessible

through a graphical interface. The software is a free and open-source software developed under the EUPL licence.

Through the EU Framework Programmes for Research and support by Eurostat, European national statistical institutes and universities have developed the τARGUS and μ-ARGUS software for statistical disclosure control for tabular data and microdata respectively, addressing issues specific to official statistics. Both τARGUS and μ-ARGUS are open source software, with an active user community in national statistical institutes and other organisations.

R is a programming language and free software for statistical computing and analysis. It is widely used among statisticians for programming statistical processes and procedures and for data analysis. It is used in many national statistical offices. Through this widespread use, there are numerous scripts and procedures developed for official statistics in the relevant libraries, free to be adapted and reused. Eurostat offers training in the use of R in official statistics as part of its European Statistical Training Programme (ESTP). There are also frequently workshops and trainings in R arranged through summer schools, seminars and statistical conferences. The official R software is freely available under the GNU General Public License.

The 'Advanced Data Planning Tool' (ADAPT) has been developed by PARIS21 to help (national statistical offices and other data producers to plan effectively for data required by policymakers and to monitor the progress continuously. ADAPT is a free, cloud-hosted data planning. It promotes reuse of data and quality assessment of data sources. Additionally, it reinforces a co-ordinated data infrastructure in a national or regional context. ADAPT enables detailed data demand and supply analysis. The tool supports monitoring of data plan activities, including costing and budgeting.

Other international organisations also support development and implementation of software solutions relevant to official statistics. The World Bank's Data Group has developed the free software 'Survey Solutions', which assists governments, statistical offices and non-governmental organisations in conducting complex surveys with dynamic structures using tablet devices. It can be used for Computer-Assisted Personal/Web/Telephone Interviews (CAPI/CAWI/CATI) as well as mixed mode surveys.

The U.S. Census Bureau has developed the Census and Survey Processing System (CSPro). CSPro is a public domain software package for entering, editing, tabulating, and disseminating census and survey data. CSPro is designed to be as user-friendly as possible. It can be used by a wide range of people, from non-technical assistants to senior demographers and programmers. CSPro supports data collection on Android devices (smartphones and tablets), and the data entry Android app works in collaboration with the desktop version of CSPro.

If statistical software is designed to be multilingual and to handle different local settings from the start, it is much easier to share. The UNECE Secretariat and the Conference of European Statisticians Sharing Advisory Board published 'Principles and Guidelines on Building Multilingual Applications for Official Statistics' (2012) with practical guidelines for software developers to facilitate international collaboration.

The hardware requirements of an NSI and/or the NSS must be carefully reviewed in cooperation with the beneficiaries, to assure that the equipment is appropriate both to the tasks and to the national situation. A realistic assessment of the needs and of the material capacity of the partner, as well as their absorption capacity, is crucial. Large-scale investments in IT normally involve a certain time-lag from order to actual installation. It might also take time to adapt new software to the specific environment in the NSI. Scheduling should take this into account. In particular, training activities should be scheduled so that one can be certain that the equipment and software are in place.

Increasingly, classical paper interviews are supplemented by new tools such as web-based questionnaires and portable devices such as smartphones, tablet PCs, etc. Using portable tools and Computer-Assisted Personal/Web/Telephone Interviews (CAPI/CAWI/CATI) increases the efficiency of interviewers while yielding better quality data, more rapidly. However, costs are still relatively high: one needs a smartphone, tablet PC or similar for each interviewer, and programming and training costs can be considerable. There are also practical issues to consider, such as the robustness of the devices and the possibilities to recharge them while in the field. The suitability of the software and the questionnaire is also crucial. Thus, the pros and cons of electronic survey solutions must be carefully considered. A number of examples are given in the 'To find out more' box below.

Physical and electronic security is crucial for confidentiality (i.e. that no identifiable individual data are available for non-statistical purposes), therefore for NSI integrity. Physical protection, well-functioning firewall technology and encryption routines are important.

Data access through the web and access controlled institutional portals are helping National Statistical Institutes and development organizations to reach out to users. Open Data portals increasingly make data available to the general public, thereby improving transparency of official data and promoting increased and innovative use of the data.

The African Development Bank launched an Open Data Platform for Africa at the end of 2011, with the aim of facilitating and strengthening user access to quality data in African countries. This has now turned into the 'African Information Highway' (AIH). A steadily increasing number of developing countries have adopted the Open Government Partnership; open data portals are established in more and more developing countries.

To find out more…

about software for official statistics

- Eurotrace software for external trade of goods statistics; Eurotrace User Community and Eurotrace e-Learning developed by COMESA.
- ERETES software for national accounts; ERETES on Eurostat's website
- Statistical Data and Metadata Exchange (SDMX); SDMX on Eurostat's website
- JDemetra+ tool for seasonal adjustment
- τARGUS and μ-ARGUS software for statistical disclosure control
- R free software for statistical computing and graphics
- Advanced Data Planning Tool (ADAPT), developed by PARIS21
- Survey Solutions software for Computer-Assisted Interviews (CAPI/CAWI/CATI) and mixed mode surveys, developed by the World Bank's Data Group
- Census and Survey Processing System (CSPro) software, developed by the U.S. Census Bureau
- KoBo toolbox, a free open source software suite with tools for field data collection in challenging environments
- Data4SDGs Toolbox, a set of tools, methods and resources developed by Global Partnership for Sustainable Development Data to help countries to create and implement data roadmaps for sustainable development

about Open Data for measuring development

- World Bank: Open Data Initiative
- data.europa.eu: The Open Sustainable Development Goals Data Hub
- Global Partnership for Sustainable Development Data: Open Data for Sustainable Development, part of the Data4SDGs Toolbox (website)
- African Development Bank: Africa Information Highway (AIH), a network of live open data platforms (ODPs) electronically linking all African countries and 16 regional organizations; The AIH's data portal Open Data for Africa
- openAFRICA, non-governmental independent repository of open data on Africa
- Open Government Partnership (OGP)

about use of new technological data collection tools

- UNECE and the Conference of European Statisticians Sharing Advisory Board: 'Principles and Guidelines on Building Multilingual Applications for Official Statistics'(2012)
- UNDP and UN Global Pulse: 'A Guide to Data Innovation for Development: From Idea to Proof of Concept' (2016)
- UN Economic Commission for Africa and Global Partnership for Sustainable Development Data: Data for a Resilient Africa (2021)
- Petrov, O., Gurin, J. and Manley, L.: Open Data for Sustainable Development, Connections 2016-5. World Bank, Washington, DC. (2016)
- Goldstein, M., Banerjee, R. and Kilic, T.: Paper v Plastic Part I: The survey revolution is in progress and Paper or Plastic? Part II: Approaching the survey revolution with caution, World Bank blog (2012)
- Amankwah, A., Oseni, G., Palacios-Lopez, A., Sagesaka, A. and Shaw, J. A.: Remote Technical Assistance for Surveys, World Bank (2021)
- World Bank's Open Learning Campus: Remote Training on Phone Surveys (website)
- Croke, K., Dabalen, A., Demombybes, G., Giugale, M. and Hoogeveen, J.: Collecting High Frequency Panel Data in Africa Using Mobile Phone Interviews, Policy Research Working Paper; No. 6097, World Bank, Washington, DC. (2012)

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he EU Open Data Portal (http://data.europa.eu/euodp/en) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

PDF: KS-GQ-21-010-EN-N

Guide to statistics in European Commission development cooperation 2021 edition

The "Guide to statistics in European Commission development cooperation" provides extensive information on statistics in development cooperation, presenting key international initiatives supporting developing countries in building sustainable statistical systems that produce quality statistics. This new edition of the Guide is updated with information on key developments, including the Sustainable Development Goals and the SDG indicators framework, the UN World Data Forum and other significant initiatives.

The Guide explains the 'statistical machinery', covering the organisation, functioning and products of national statistical systems, as well as key international quality frameworks and principles. It presents tools for assessing statistical systems, strategic plans for developing statistical institutions, management of national projects/programmes in the field of statistics, training, as well as different aspects of statistical capacity building.

It presents a summary of EU support to statistics, including issues such as requests for support to statistical capacity building, indicators to feed result-based management tools, monitoring development partnerships or assessing the performance of policies and interventions.

The Guide can be used to identify and develop actions to support statistics and statistical indicators to define and follow-up cooperation programmes, including sector policies. It provides insight into the statistics in a wide range of specific sectors, from agriculture to social statistics, from sustainable development indicators to business statistics. This new edition of the Guide groups the previous sector chapters into four new thematic volumes on: the Sustainable Development Goals and indicators; Social statistics; Economic statistics (will be updated at a later stage); Environment and climate change.

Finally, it should be noted that this is the fifth edition of the Guide, the previous editions being done in 2011, 2012, 2013 and 2017.

For more information

https://ec.europa.eu/eurostat/

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