# Global Assessment
# of the
# National Statistical System of Kyrgyzstan

**1 July 2021**

# Contents

# List of abbreviations

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| AIS | Automated information systems |
| BEC | Classification by Broad Economic Categories |
| BOP | Balance of Payments |
| BPM | Balance of Payments and International Investment Position Manual |
| CAPI | Computer assisted personal inquiry |
| CIS | Commonwealth of Independent States |
| CISSTAT | Interstate Statistical Committee of the Commonwealth of Independent States |
| COFOG | Classification of the Functions of Government |
| COICOP | Classification of Individual Consumption by Purpose |
| CN of FEA | Commodity Nomenclature of Foreign Economic Activity |
| CPI | Consumer Price Index |
| EAEU | Eurasian Economic Union |
| EECCA | Eastern European, Caucasus and Central Asia |
| EFTA | European Free Trade Association |
| e-GDDS | Enhanced General Data Dissemination System |
| ES CoP | European Statistics Code of Practice |
| FAO | Food and Agricultural Organisation |
| FDI | Foreign direct investment |
| FISIM | Financial intermediation services indirectly measured |
| GA | Global Assessment |
| GDP | Gross Domestic Product |
| GFS | Government Finance Statistics |
| GFSM | Government Finance Statistics Manual |
| GIZ | German Institute for International Cooperation |
| GLOS | Generic Law on Official Statistics |
| GPS | Global Positioning System |
| GSBPM | Generic Statistical Business Process Model |
| HBS | Household Budget Survey |
| HLFS | Household Budget and Labour Force Survey |
| HS | Harmonised Commodity Description and Coding Systems |
| ICT | Information and Communication Technology |
| ILO | International Labour Organization |
| IOT | Input output tables |
| ISIC | International Standard International Classification of all Economic Activities |
| IT | Information Technology |
| IMF | International Monetary Fund |
| ISCED | International Standard Classification of Education |
| ITRS | International Transactions Reporting System |
| KR | Kyrgyz Republic |
| LFS | Labour Force Survey |
| MCC | Main Computing Centre |
| MICS | Multi-Indicator Cluster Survey |
| MoU | Memorandum of Understanding |
| NACE | The European Union's Classification of Economic Activities (Nomenclature Générale des Activités Économiques dans les Communautés Européennes) |
| NBKR | National Bank of the Kyrgyz Republic |
| NSC | National Statistical Committee of the Kyrgyz Republic |
| NSS | National Statistical System |

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| OECD | Organisation for Economic Cooperation and Development |
| PIM | Perpetual inventory method |
| PPI | Producer Price Index |
| SBR | Statistical Business Register |
| SC ADT | State Classification of Administrative and Territorial Division |
| SCEA | State Classification of Types of Economic Activity |
| SDMX | Statistical Data and Metadata eXchange |
| SDDS | Special Data Dissemination Standard |
| SDGs | Sustainable Development Goals |
| SEEA | System of Environmental and Economic Accounting |
| SEIS | Shared Environmental and Information Systems |
| SITC | Standard International Trade Classification |
| SME | Small and medium size enterprise |
| SNA | System of National Accounts |
| SSCP | State Statistical Classification of Products |
| SPSS | Statistical Package for the Social Science |
| SSB | Statistics Norway |
| SUT | Supply and use tables |
| UN | United Nations |
| UNECE | United Nations Economic Commission for Europe |
| UNFPA | United Nations Population Fund |
| UNFPOS | United Nations Fundamental Principles of Official Statistics |
| UNICEF | United Nations International Children's Emergency Fund |
| UNSD | United Nations Statistics Division |
| USRSE | Unified State Register of Statistical Units |

## Preface

The Global Assessment of the National Statistical System of Kyrgyzstan was undertaken in partnership between the United Nations Economic Commission for Europe (UNECE), the European Free Trade Association (EFTA) and the Statistical Office of the European Union (Eurostat), at the request of the National Statistical Committee (NSC) of the Kyrgyz Republic. The Global Assessment was conducted by Mr Hallgrímur Snorrason (Lead expert – EFTA), Ms Avis Beneš (Eurostat), Mr Stefan-Logi Sigurthorsson (Eurostat), Mr Volker Täube (EFTA), Mr Rami Peltola (UNECE) and Mr Steven Vale (UNECE), in cooperation with the managers and staff of the NSC.

The Global Assessment was planned to be conducted along lines similar to previous such assessments of Central Asian statistical systems, involving utilising documentation provided by the national statistical authorities and two missions of the GA Team to the country. This plan, however, had to be abandoned owing to the COVID-19 pandemic. In the event, the GA Team carried out a mission to Bishkek in late January 2020 but the planned second mission to the country could not be realised. To compensate for that, the Team carried out a "virtual mission", i.e. a series of on-line meetings with Kyrgyz colleagues over three days on 24-26 February 2021. Thus, this report and its recommendations are based on documentation provided by Kyrgyz statistical authorities and the discussions with NSC managers and experts as follows:
- Self-assessment questionnaires completed by NSC and National Bank staff prior to the mission to Bishkek.
- An extensive review performed during the expert mission to Bishkek on 27-31 January 2020, including discussions with key stakeholder groups.
- A series of virtual meetings, the second "mission", between the GA Team and NSC managers and experts on 24-26 February 2021.
- Analysis of documents provided by the NSC and information available on their web site.

In this report, the names of government bodies are those indicated at the time of the missions. The names and functions of some of these bodies have since changed according to the Decree of the President of the Kyrgyz Republic (from May 5, 2021) DP № 114 on the Cabinet of Ministers of the Kyrgyz Republic.

The international experts would like to thank the UN Resident Coordinator's Office in Kyrgyzstan for providing interpretation for the expert mission and the virtual meetings.

The collaboration between the international experts and the staff of the NSC was positive and constructive throughout all phases of the work. The international experts would like to thank the NSC management and staff for this.

## Executive Summary

In general, Kyrgyz official statistics are found to have developed significantly in recent years, both institutionally and in substantive terms. Acting on recommendations of the 2012 Global Assessment, the Kyrgyz authorities, aided by the UNECE and the UNSD, have in the last few years undertaken a thorough review of statistical legislation in line with internationally recommended best practices. A new Law of the Kyrgyz Republic on Official Statistics was approved by the National Assembly in 2019 and endorsed by the President of the Republic on 8 July 2019. The Law was published officially and entered formally into force on 8 July 2020. Based on the new Law, a new Regulation on the National Statistical Committee of the Kyrgyz Republic was issued and entered into force on 22 September 2020.

The new Law on Official Statistics is based on the UN Generic Law on Official Statistics (GLOS) and thus on the UN Fundamental Principles of Official Statistics (UNFPOS). As recommended by the 2012 Global Assessment, it has significantly strengthened the legal provisions on some main issues of official statistics, in particular professional independence, coordination of the national statistical system, mandate to access administrative records and registers for statistical purposes, and confidentiality of individual statistical data. The new Law strengthens the role of the NSC as the main national producer of official statistics and entrusts it with the mandate to lead the development of official statistics and coordinate the national statistical system (NSS).

Kyrgyz official statistics have a fairly good track record as regards professional independence and basic freedom from political interference. It has been noted that the official statistics have come through the somewhat turbulent period of independence since 1990 basically untouched by political upheavals. One of the main issues that was changed in the Law on Official Statistics concerned the appointment and termination of appointment of the Chairperson of the NSC. The Law and the new Regulation incorporated all the main recommendations of the GLOS in this respect and brought it in line with the recommendations of the European Statistics Code of Practice and the UNFPOS. The main provisions are that the Chairperson is selected solely on the basis of professional experience and education and appointed by the President of the Republic for a period of seven years. Conversely, the appointment of the Chairperson within the seven-year period cannot be terminated for reasons other than own resignation, death or conviction in a court of law for criminal activity or gross negligence.

The term of office of the incumbent Chairperson was terminated and a new Chairperson was appointed by the President on 19 February 2021, in line with established rules and procedures for appointments at this level across government agencies. However, this has highlighted a conflict between the provisions of the new Law on Official Statistics (including the Regulation on the NSC) and the more general provisions for public sector appointments, which needs to be addressed. The global assessors strongly recommend that the provisions of the new Law on Official Statistics and the Regulation on the NSC should take precedence, otherwise this may risk weakening the professional independence of the NSC and its Chairperson and undermining public trust in Kyrgyz official statistics.

An important element in the Law on Official Statistics is the strengthening of the mandate for data collection, particularly the provisions on access by producers of official statistics to and utilisation of administrative records and registers for statistical purposes. The Global Assessment recommends that the NSC uses this opportunity to intensify its cooperation with the State Tax Service and other important holders of administrative data on facilitating the use

of key such data for statistical purposes, including on harmonising definitions and classifications and conducting training on how to use administrative data for statistics.

The Global Assessment finds that the financial resources of the NSC are limited and in particular there are severe restraints on funding of IT. It is recommended that NSC updates its IT strategy aiming to strengthen the capacity and sustainability of its current IT system, including not only hardware and software but also skilled IT staff.

As regards statistical methods and procedures, the GA recommends that the work already done on improving the quality of statistical outputs should be continued and strengthened as provided for in the new statistical legislation. Statistical confidentiality is well observed at the NSC, but the Law now places increasing emphasis on this which underpins the recommendation that the NSC and the National Bank continue to work together on harmonising statistical confidentiality rules, procedures and guidelines. It is further recommended that rules and procedures be standardized, documented and disseminated.

The Law on Official Statistics contains internationally recommended provisions on impartiality and objectivity as well as on statistical methodology providing that statistical work is to be carried out in accordance with the UNFPOS and internationally agreed statistical standards. It is recommended that the NSC establishes a dedicated methodology unit to continue the work on updating important standards and systems to the most modern editions and practices. The NSC has for some time worked towards introducing and applying the Generic Statistical Business Process Model (GSBPM) in its statistical productions processes. Following the ongoing documentation of statistical processes, the NSC is recommended to increase the standardisation of its statistical processes across statistical domains and start applying the model as a framework to organise a new statistical process or revise existing ones.

At the present time, the NSC relies on full-coverage data collection in many areas. In line with the recommendations outlined earlier, it is recommended that the NSC seeks cooperation with government departments on increasing the use of administrative data and reducing the reliance on full-coverage data collected in the field and being subject to multiple control at various instances of the collection and editing process. There are various benefits involved in this; response burden is greatly reduced and cost-effectiveness is improved. At the same time, the NSC is encouraged to start preparing and implementing organisational changes, not least to accommodate the use of administrative data and the switch from data collection using paper questionnaires to collecting data using digital technologies and devices, applying digital control and editing techniques. Such reorganisation should involve both replacing the current domain-based production model by a more functional model in line with the GSBPM and reconsidering the regional structure making it fit to deal with digital data collection and streamlining the electronic flow of data and data control.

The new Law on Official Statistics, including the new Regulation on the NSC, aims at strengthening the national statistical system (NSS) and the cooperation by the various statistical producers. The NSC is at the heart of the NSS, being responsible for its leadership and coordination. This requires that the NSS is properly defined by listing its members and their functions in the annual statistical programme and that the NSC reinforces its coordination mechanism and procedures.

The NSC has made good progress in developing statistics to monitor the implementation of sustainable development goals (SDGs) and NSC staff have been actively involved in various international activities related to SDG statistics. The NSC is encouraged to continue to develop and implement SDG statistics, focusing on improving the range of indicators covered and the availability of disaggregated data. apart from that, this report recommends that he NSC should seek technical assistance on the application of appropriate methodologies in compiling SDG indicators, such as in labour statistics, living condition statistics, and agricultural statistics.

For macro-economic statistics, there seem to be two main issues that need to be emphasized. On the one hand, there is a need to bring basic standards of economic statistics up to date and, on the other hand, collection of source data needs to be strengthened as discussed above. National accounts are still mainly based on the international System of National Accounts (SNA) from 1993. These need to be updated and the current SNA 2008 to be fully applied. For government finance statistics, the Ministry of Finance is still applying cash accounting and the IMF's government Finance Statistics Manual (GFSM) from 2001. In this respect it is important that the current plans of implementing the current GFSN 2014 in 2021, including accruals accounting principles, are fully adhered to and prioritised. In external trade statistics, the current IT platform for compiling foreign trade statistics is outdated and needs to be replaced. Also, new areas, as e-commerce should be studied and included in trade statistics. Balance of trade statistics are compiled by the National Bank, both according to the BPM5 and BPM6 manuals. The Bank is planning to update entirely to BPM6 but as that is compatible with SNA 2008 but not the earlier version used by NSC it is recommended that it continues applying BPM5 until the NSC has completed it migration to the SNA 2008. As regards the calculation of the CPI, it is recommended that the mobile application of price collectors is updated by including automated data validations and that the current Excel-based production system is replaced by a proper database system. Recommendations are also made on improving the housing component of the CPI and extending the coverage of data collection.

As regards the statistical business register and business statistics, it is recommended that the coverage of the current register is increased by systematically including self-employed professionals (non-employers or one-person enterprises). This should mainly be done by using administrative data but also, where necessary, by conducting targeted censuses of businesses. Structural business statistics are basically not compiled but it is recommended that the NSC should consider creating a dedicated unit for that purpose. In this as in so many other aspects, the NSC is encouraged to investigate further use of administrative data and speed up the transition to electronic reporting. NSC produces a range of short-term statistics and the report makes several recommendations to increase their quality and usability.

The main theme regarding social and demographic statistics is to increase to use of administrative data and the exchange of such data, not least through the new Tunduk system. The NSC is encouraged to support the development of a national population register that would form the basis of all registers of persons, greatly facilitating the use of such registers for both statistical and administrative purposes. Finally, the report makes several recommendations on strengthening various aspects of multi-domain statistics.

# Chapter 1: Professional independence

*Overview*

Following the recommendations of the Global Assessment carried out in 2012, the Kyrgyz National Statistics Committee (NSC) set about modernising the Law on State Statistics and aligning it to modern international thinking and recommendations. The Law on State Statistics had in many ways provided the basis for official Kyrgyz statistics but was found to lack sufficient provisions on some key issues of official statistics. The Global Assessment of 2012 recommended that the law be strengthened in several main instances and brought in line with the UN Fundamental Principles of Official Statistics (UNFPOS). This applied in particular to provisions on professional independence, coordination of the national statistical system (NSS), mandate to access administrative registers and records for statistical purposes, confidentiality of individual statistical data, and dissemination. The ensuing legislative work was carried out with support from UNECE, UNSD and World Bank. A new Law on Official Statistics was approved by the Kyrgyz National Assembly in 2019 and endorsed by the president of the Kyrgyz Republic on 8 July 2019. The date of enactment and date of official publication of the new law was one year later, 8 July 2020.

At the time of the first mission on the 2020 Global Assessment, the NSC had been working on preparing for the new law to enter into force. This work encompassed three main tasks; preparing a host of resolutions dealing with abolition of legal provisions contrary to or made redundant by the new law, preparing two main regulations setting out detailed implementation provisions of the new law, and introducing the new law and the new legal requirements for cooperation and coordination of the NSS to partner institutions of the NSS.

As regards professional independence, the old Law on State Statistics had in many ways served well. Kyrgyz official statistics had been basically free from political interference. As was pointed out in one of the GA meetings in January 2020, Kyrgyz official statistics had come through the period of independence, including two revolutions, untouched by political upheavals.

The new Law on Official Statistics contains most of the provisions on professional independence recommended in the United Nations Generic Law on Official Statistics for Eastern Europe, Caucasus and Central Asia (GLOS) and the European Statistics Code of Practice (ES CoP). The Law refers explicitly to the UNFPOS as regards professional independence, impartiality and objectivity, accuracy and reliability, coherence and comparability, transparency and clarity, statistical confidentiality and exclusive use for statistical purposes, and relevance. On professional independence, the Law stipulates that the producers of official statistics shall decide, independently and free from any pressures from political or other external sources regarding the development, production and dissemination of statistics, including the selection of data sources, concepts, definitions, methodologies and classifications to be used, and the timing and content of all forms of dissemination.

The Law stipulates that the NSC is the state authorised body with the status of national in the area of official statistics and leading producer of official statistics, ensuring coordination of activities of development, production and dissemination of official statistics in the National Statistical System. The NSC is accountable to the President of the Kyrgyz Republic. The NSC is led by a Chairperson appointed by the President for a period of seven years.

The GLOS recommends that the law on official statistics of a country stipulates that the Chief Statistician, the Chairperson of NSC in the case of Kyrgyzstan, is appointed by the Prime Minister/President of the country for a fixed term of years on the basis of open competition based on the relevant competences only. It also recommends that it is stipulated that the term of office of the Chief Statistician cannot be terminated before its expiry for any reasons compromising statistical principles and then goes on to list the reasons for possible termination, such as own resignation, death, and conviction for criminal act. The ES CoP, Principle 1, indicator 1.8, envisages that the procedures for the recruitment and appointment of the heads of national statistical institutes, and, where appropriate, statistical heads of other statistical authorities, are transparent and based on professional criteria only. Also, that the reasons on the basis of which the incumbency can be terminated are specified in the legal framework. These cannot include reasons compromising professional or scientific independence.

The conditions for the appointment and termination of office of the Chief Statistician, in this case the Chairperson of the NSC, set out in the GLOS and the ES CoP are not fulfilled in the new Kyrgyz Law on Official Statistics. Hence, the global assessors recommended at the end of their mission to Bishkek in January 2020 that such conditions should be spelled out in the regulation on the NSC which was being prepared at that time. This recommendation was taken into account in the new Regulation on the National Statistical Committee of the Kyrgyz Republic approved by Decree of the President of the Kyrgyz Republic on 22 September 2020, with the exception of the provision on open competition recommended in the GLOS and the one on transparency of appointment specified in the ES CoP. The provisions on the appointment and termination of office of the Chairperson of the NSC are set out in the Regulation, chapter VII, paragraphs 14-16. Paragraph 14 states that the Chairperson is appointed by the President of Kyrgyz Republic for a period of 7 years. Paragraph 15 outlines the qualifications of the person who may be appointed to the post of Chairperson. These are that the person is a citizen of the Kyrgyz Republic and "has the required qualification (higher education) and at least 10 years of professional experience in statistics, economics, management, sociology, information technology and law". Paragraph 16 contains the provisions on the conditions under which the Chairperson may be removed from office, which are basically the same as those listed in the GLOS. The NSC informed that under the constitution of the Kyrgyz Republic, the provisions regarding the term of office of the Chairperson can only be applied for appointments after the date they came into force, and did not apply in the case of the previous Chairperson, who was appointed under the previous law, which did not contain any provisions in this regard. They confirmed that the provisions of the current law regarding the term of office of the Chairperson will be applied to the current Chairperson.

The provisions in the Law on Official Statistics and the Regulation on the National Statistical Committee on the appointment and termination of office of the Chairperson of the NSC are mainly in line (the exceptions are provisions on open competition and transparency) with international recommended best practice in this respect and thus observe the conditions set out in both the GLOS and the ES CoP. However, these provisions do not seem to have been followed when a new Chairperson of the NSC was appointed on 19 February 2021. When this was raised during the second mission of the GA, the assessment team was informed that the appointment was done in accordance with the established practice for appointment of heads of departments in the Kyrgyz government administration. Thus, there seems to be a conflict between the provisions of the new Law on Official Statistics (including the Regulation on the NSC) and the more general approach to public sector appointments, which needs to be

addressed. The global assessors strongly recommend that the provisions of the new Law on Official Statistics and the Regulation on the NSC should take precedence in future. This is because the UNFPOS, the GLOS and the ES CoP emphasize the importance of separating the appointment of the head of the national statistical office from political changes, in order to preserve neutrality, impartiality and transparency which are the basic conditions for upholding public trust in official statistics.

It may be pointed out that the GLOS specifically recommends that appointments of chief statisticians should not follow changes in government but be independent of these. Also, that it should be avoided if possible that the fixed terms of years of heads of statistical offices should coincide with that of the government in order to discourage political considerations from influencing the selection of the chief statisticians.

As stated above, one of the main redeeming features of the official statistics of Kyrgyzstan in recent years is the fact that they have been professionally maintained through political upheavals and revolutions and been basically free from political manipulations. The global assessors would like to emphasize this good track record and the importance of its continuity. Hence, they strongly recommend that the relevant provisions of the current law and regulation are maintained, that they are fully observed in future appointments, and above all, that the government recognizes and supports the non-political and non-partisan stance of official statistics.

In January 2020, at the time of the first meetings of the global assessment team with NSC counterparts at the NSC in Bishkek, the NSC had already drafted a regulation on the Statistical Council. Assessing this draft at that time, the assessment team found that the draft gave the Statistical Council a mandate that seemed to come close to grant the Council some functions of a management board. The assessment team recommended that this be corrected and clarified in line with the law.

### *Recommendations*

1. It is strongly recommended that the provisions of the current Law on Official Statistics and Regulation on the National Statistical Committee on the appointment and termination of appointment of the Chairperson of the NSC are fully observed in future appointments, and above all, that the government recognizes and supports the non-political and non-partisan stance of official statistics.

2. The NSC should revise the Regulation on the Statistical Council with the aim of limiting the mandate of the Statistical Council to that of being solely an advisory body in accordance with the Law on Official Statistics, avoiding to grant it a mandate that includes any management or supervisory functions that may infringe on the professional independence of the Chairperson of the NSC.

# Chapter 2: Mandate for data collection

*Overview*

The Law on Official Statistics, Chapter 5, provides comprehensive provisions on the mandate for producers of official statistics for collection of data from enterprises, households, national and local authorities, and the public at large. Of particular importance are the provisions making it mandatory for national and local authorities to provide producers of official statistics, free of charge, with data in their possession at the level of detail necessary for the production of official statistics, also including metadata. The providers of administrative data are also obliged to consult the NSC or other producers of official statistics if they plan to organise a new data collection or undertake a major revision of their data collection. In addition to this, Article 16.4, allows producers of official statistics to exchange data and metadata in the NSS, exclusively for statistical purposes and under conditions of confidentiality of individual data.

The new Law on Official Statistics dispels any doubt as to the obligation of holders of administrative data to provide their data for statistical purposes. Moreover, based on the new Law, various resolutions will be issued abolishing any obstacles of current laws and regulations on the delivery of or granting access to their administrative data for the purposes of official statistics. Hence, following the enactment of the new Law, the NSC and other producers of official statistics should gain full access to all administrative data they may require for official statistical purposes.

The Government of the Kyrgyz Republic has recently been engaged in developing and implementing a new IT system (termed Tunduk) for data exchange within government. At the same time the Government of the KR is considering the option to restructure another project under the support of the World Bank known as "Digital CASA" whereas one of the largest sub-components of the project is related to the creation of the Government Cloud (G-Cloud) for processing, storage, exchange of data, development of architectural solutions, purchase of supporting infrastructure including for improved ability to address cyber-security threats, and related training of civil servants. This project would help the Government to implement certain activities on standardising and digitising government data in a cloud platform to improve the capacity to deliver government services. The global assessors find that these developments have substantial potential for accelerating and ensuring the safe use of administrative data for statistics, including promoting the use of statistical concepts, classifications and standards, and facilitating access to administrative data for statistical purposes, and would like to encourage the NSC to fully participate in these developments. In doing so, it will be necessary to ensure the clear separation of administrative and statistical data, to maintain statistical confidentiality and the trust of users and respondents of official statistics.

For the NSC, accessing and utilising tax and social security data are key issues in extending and improving the supply of data for economic and social statistics. Hence, the cooperation with the State Tax Service and the Social Fund are of primary importance. There are two main consideration is this respect; one is obtaining regular access to or being provided with data on a regular basis of high frequency, the other is that the source data is defined and classified in a way in which makes it readily usable for statistical purposes. For these reasons, it is recommended that the NSC seeks to intensify its cooperation with the above-mentioned authorities as well as other ministries and departments holding administrative data and uses its

newly acquired mandate to cooperate with the administrative authorities on harmonising definitions and classifications of data to facilitate statistical production. It should also be pointed out that there may be needs and grounds for conducting training on how to use administrative data for statistical purposes, on the appropriate procedures and methodologies for that as well as quality monitoring and control.

A specific feature of the tax system of Kyrgyzstan is that sole proprietors are allowed to fulfil their tax obligations by purchasing patents that permit them to operate their businesses and that they do not have to submit tax returns as businesses in which are legal entities. This system is reported to have the effect that many firms continue to be operated as sole proprietorships despite having gained a large size over time. Hence, this does not only result in a loss of data for administrative and statistical purposes but also entails that potential tax revenues are lost. Recognising that this may go beyond of the scope of this Global Assessment of the statistical system, the Kyrgyz authorities are encouraged to reconsider the basis for the patent system of sole proprietorships for reasons of both improving economic and social statistics and strengthening the tax base of the economy.

*Recommendations*

3. The NSC should proactively participate in the improvement of the "Tunduk" system for data exchange and ensuring data quality coordination within the government, and similar initiatives such as the "Digital CASA" project, to promote the use of statistical concepts, classifications and standards, and to identify new data sources and more efficient exchange possibilities.

4. The NSC should seek to intensify its cooperation with the State Tax Service and the Social Fund on accessing and utilising their data for statistical purposes as well as with other ministries and departments holding administrative data.

5. The NSC should use its newly acquired mandate to cooperate with the administrative authorities on harmonising definitions and classifications of data to facilitate statistical production.

6. The NSC with its Institute of Research and Capacity building should consider conducting training on how to use administrative data for statistical purposes, on the appropriate procedures and methodologies for that as well as quality monitoring and control.

7. The Kyrgyz authorities are encouraged to reconsider the basis for the patent system of sole proprietorships for reasons of both improving economic and social statistics and strengthening the tax base of the economy.

# Chapter 3: Adequacy of resources

*Overview*

The NSC has just over 1000 staff, split between the central office in Bishkek (112 civil servants), 7 regional offices, 2 city offices, 47 district offices, and two subordinated bodies (the Main Computing Centre and the Institute of Statistical Research and Capacity Building). About two-thirds of these staff are civil servants, whilst the rest are a mixture of interviewers, junior and technical support staff, and non-government employees. The latter group are mainly in the two subordinated bodies.

There are usually plenty of applicants for vacancies, but they don't always have the right qualifications. Retention of staff is also an issue, as even though salaries have increased by 30% since 2018, they are still generally higher elsewhere. The NSC has developed some measures to improve motivation and retention, including training, letters of recognition, and opportunities to attend international conferences. Recruitment by regional and district offices as well as the Main Computing Centre and the Institute of Statistical Research and Capacity Building does not follow an office-wide approach which may lead to some duplication in human resources roles. Applying a standard recruitment framework across the entire NSC can minimize such duplication and increase efficiency.

Originally, the 2020 budget amounted to 694.8 million Soms (approximately 8.7 million US Dollars). This was higher than for previous years, as it included 357.3 million Soms for the population and housing census. However, due to the Covid19 crisis the amount of 357.3 million Soms was withdrawn by the Ministry of Finance of the Kyrgyz Republic, since the population and housing census of the Kyrgyz Republic had to be postponed for an indefinite period.

The remaining budget was split between the central office (49.9 million Soms), regional, district and subordinated bodies (286.2 million Soms) and training / capacity development (1.2 million Soms). Salaries generally represent about 90% of the total budget, with 10% for all other expenses, including buildings and information technology (IT).

Additional financial support is provided by donors. In 2019, this was 20.6 million Soms, mostly to support census preparations, and for office equipment and furniture.

Most IT equipment is provided by donors and is usually linked to specific projects. However, a one-off appropriation of 9.8 million Soms was received from the state budget in 2019 for tablets and other equipment to support the census. The lack of regular, sustainable funding for IT equipment makes it difficult to plan for hardware and software upgrades on a systematic basis.

The quality of IT equipment is mixed, with some servers and other equipment already operating beyond their expected lifespan. Investment in information security is also needed. This means that there is a growing risk to NSC operations.

The NSC headquarters building has been partially renovated, but more investment is needed to renovate and improve the working environment for staff. This concerns aspects of workspace, functionality of installations and hygienic facilities. The adequacy of workspace is an important factor in staff motivation; improving that would help to motivate staff and strengthen job satisfaction.

*Recommendations*

8. The NSC should harmonise recruitment policies and human resources management for the central, regional and district offices, the Main Computing Centre and the Institute of Statistical Research and Capacity Building.

9. The NSC should develop training policies for the whole national statistical system, with the goal of improving overall statistical capacities, qualifications and retention of staff.

10. The NSC should consider how the use of additional non-financial incentives such as trainings or flexible working arrangements (including partial teleworking) could improve the recruitment and retention of staff.

11. The NSC should develop a detailed IT strategy, including a policy on upgrading hardware and software based on regular government funding as well as developing capacities of NSC and MCC staff in new areas of IT. As a first step, the NSC should commission, in cooperation with international partners, a sector review to evaluate the capacity and sustainability of its current IT system.

12. The NSC should seek additional resources to continue the renovation and upgrading of its buildings and their facilities, to improve the working environment for staff.

13. The Kyrgyz government should ensure that the NSC has adequate resources to do its job. This includes funding to improve the retention of staff via improved salaries and working conditions, funding to improve IT equipment and establish a systematic replacement policy for obsolete equipment, and funding to renovate and upgrade buildings and facilities.

# Chapter 4: Commitment to quality

*Overview*

There is a general commitment to ensure the quality of official statistics in the new Law on Official Statistics (Article 28), which also foresees the possibility of quality evaluations by the scientific community in order to assess and improve statistical methodology (Article 29). Measures to implement this are contained in the 2020-2024 Strategy for the Development of Statistics. A Quality Assurance Department has been established and preparation work for developing a quality management action plan has begun.

So far, quality activities and tools already implemented have focused on the quality of outputs. The quality of statistical reports is monitored, and a user satisfaction survey has been conducted. However, there is currently much less attention to the quality of inputs and processes. The increasing use of the Generic Statistical Business Process Model (GSBPM) and plans to move towards a process-oriented approach to statistical production, will help to increase the focus on process quality and standardisation.

One issue identified during discussions is the current lack of training for NSC staff on quality issues. This means that the knowledge and experience to conduct effective quality assessments need to be further developed. This could be done in partnership with universities and through strengthening the training programmes of the Institute of Statistical Research and Capacity Building both for the NSC and the wider national statistical system. Suitable infrastructure and standards for quality documentation also need to be put in place.

There is a clear need for capacity development support in implementing measures to manage quality, and to raise awareness of the importance of quality management throughout the NSC and the national statistical system. In addition, it is necessary to develop basic documents and a number of normative legal acts of the developed national quality framework applied throughout the NSC and the national statistical system. Quality management should also be included in other training activities as far as possible.

*Recommendations*

14. The NSC should build on the work already done regarding quality of outputs by:
    a. Introducing a more systematic measurement including quality of inputs and processes, in a coherent "Total Quality Management" approach
    b. Developing a national quality framework in line with international guidelines
    c. Adopting regulatory legal acts in accordance with the national quality framework, to be applied throughout the NSC and the national statistical system.
15. The NSC should increase its engagement with universities to increase the number of courses offered in statistics, and in particular related to quality.
16. The Institute of Statistical Research and Capacity Building should strengthen its statistical training programmes for the NSC and other NSS institutions, e.g. by developing a multi-year dynamic training programme, and offer training to other producers of official statistics outside the NSC, to improve coordination within the national statistical system.

# Chapter 5: Statistical confidentiality

*Overview*

Statistical confidentiality is comprehensively covered in Chapter 6 (Articles 21-27) of the new Law on Official Statistics. The provisions in this Law are fully in-line with international best practices. The priority is therefore to put in place the systems, procedures, policies and guidelines to fully implement the provisions of the Law.

All employees of state statistics bodies, including interviewers, are required to sign documents obliging them to maintain statistical confidentiality, and there are penalties for breaching confidentiality. A policy on statistical confidentiality within the NSC and subsidiary bodies was agreed in 2012. There are plans to review this and related guidance in the context of the new Law on Official Statistics. This provides an opportunity to document and further standardise practices on statistical confidentiality.

Statistical confidentiality practices are currently not harmonised between the NSC and the National Bank. This should be done, in line with the new Law on Official Statistics, and coordinated with the review of the NSC policy and guidelines referred to in the previous paragraph.

The NSC recognises the need to develop policies and procedures for the technical aspects of data protection, in-line with international best practices. Support in this respect was requested, and the first step will be to formulate exactly what support is needed.

There is currently rather limited access to anonymised population and housing census microdata for specific research purposes, on a case-by-case basis. However, although there are provisions in the new Law on Official Statistics concerning access to confidential data for research purposes (Article 25) the necessary principles and guidelines to implement these provisions have not yet been elaborated.

*Recommendations*

17. The NSC should standardise, document and formalise procedures and guidelines regarding the management of statistical confidentiality.

18. The NSC and the National Bank should work together to harmonise statistical confidentiality rules, procedures and guidelines in line with the new Law on Official Statistics.

19. The NSC should study international best practices on information security and implement measures to improve the technical and physical security of confidential data.

20. The NSC should elaborate and publish principles and guidance on granting access to statistical microdata for research purposes.

# Chapter 6: Impartiality and objectivity

*Overview*

Following the UN Fundamental Principles of Official Statistics, the recent Law of the Kyrgyz Republic on Official Statistics recognises under Article 5, paragraph 2, explicitly that "…official statistics are developed, produced and disseminated in a neutral, reliable and unbiased manner according to professional standards and have to be free from any political statements or considerations".

The NSC is an independent agency reporting to the President of Kyrgyzstan. It does not have organisational ties to any other government department or agency, and there is no special access to statistics before their public release.

The NSC can choose its data sources based on professional criteria. It is increasingly making use of administrative data, and the new Law on Official Statistics gives it wide-ranging powers of access to administrative sources (see Chapter 2).

Errors in published data are corrected when they are discovered, however, there is no specific policy on managing errors and revisions.

A metadata system is being developed to improve the information on methods and procedures available to users. The Statistical Work Programme, published on the NSC's web site, gives information about new or revised methods.

A release calendar is published on the NSC web site, and users are notified at least one day in advance of any deviations to published release dates.

*Recommendation*

21. The NSC should develop and publish a policy on managing errors and revisions to statistical data.

# Chapter 7: Sound methodology

*Overview*

In general, the methodology used in the National Statistical System of Kyrgyzstan follows international norms and guidelines. This is in line with Article 28(2) of the Law on Official Statistics, which states that statistical work is "undertaken in accordance with the Fundamental Principles of Official Statistics and internationally agreed statistical standards and recommendations". In some cases (e.g. National Accounts, government finance statistics and statistics on the Sustainable Development Goals), the latest international standards and methodologies are not yet fully applied, but plans are in place to complete the transition to them as soon as possible.

There is a Methodological Council of the NSC, comprised of senior managers. This Council oversees the development of methodology, forms and standards. It also considers reports from staff who have attended international training and conferences, to see if there are new developments that should be reflected in NSC methodologies. At the time of the expert mission, this Council only covered the NSC. The international experts recommended that to promote greater standardisation between producers of official statistics, its remit and membership could be extended to cover all members of the National Statistical System. By the time of the virtual meetings in February 2021, the National Bank had been included in this Council.

Within the NSC, methodologies are developed or revised in accordance with the annual statistical work programme and taking account of relevant international standards. In many cases, this is done with the support of international experts. Methodology tends to be developed domain by domain, and there is scope for greater harmonization across domains, and across the different organisations that comprise the National Statistical System. There is currently no central methodological department. The creation of such a department would help to improve standardisation within the NSC, and it could have a wider remit to support other members of the National Statistical System. A metadata system is currently under development, this should further encourage the use of standard concepts, definitions and classifications.

The national priority to increase digitalisation within the Kyrgyz government also offers some opportunities for the NSC to promote the use of standard methods, concepts and classifications across government. The argument for this is particularly strong when these are international standards. This would result in better quality administrative data, which can be used more easily for statistical production.

*Recommendations*

22. The NSC should consider how the scope of the Methodological Council could be further extended to cover the whole National Statistical System

23. The NSC should create a dedicated unit to standardise methodology across statistical domains, and promote harmonization of methodology across the National Statistical System

24. The NSC should take advantage of the current activities to digitalise government data, which provide an opportunity to promote the use of international standards and classifications across government.

# Chapter 8: Appropriate statistical procedures

*Overview*

The NSC is making the first steps to harmonise statistical procedures across different domains. It is considering whether and how to move from the current domain-based (or "stove-pipe") structure to a more process-based approach. This would bring benefits in terms of standardisation and efficiency. Most national statistical offices make this transition gradually, often starting with the consolidation of data collection and/or dissemination activities.

The NSC has introduced the Generic Statistical Business Process Model (GSBPM) as a basis for standardised documentation of statistical production processes. Processes are being documented as they currently are ("as is") and as they are expected to be in the future ("to be"). This allows the identification of strengths, weaknesses and opportunities for standardisation. Approximately 20 statistical processes had been documented in this way at the time of the assessment.

As the NSC gains further experience of documenting statistical production processes according to the GSBPM, the next step would be to use the GSBPM as a framework for designing a new production process or conducting a major revision of an existing process.

One impact of the current "stove-pipe" organisation is that staff in different areas of the NSC often do not have much knowledge of the statistical production processes outside their immediate area. This makes staff mobility and the sharing of good practices more difficult. To overcome this, the NSC could organise a series of internal seminars where different teams present their work and their ideas for future development.

There is a growing demand in many countries for national statistical offices to make greater use of geospatial information. This can support statistical production processes in many ways, from designing surveys and determining enumeration areas, through to integrating data from different sources, and dissemination of statistical data using maps. The first step is to collect and store geographic location for all units (businesses, households, etc.). There are plans to develop a national spatial data infrastructure for Kyrgyzstan. The NSC should actively engage with this initiative to ensure its needs relating to geospatial information are met.

In many areas of statistical production, there is currently a heavy use of spreadsheets. This format is not ideal for data integration, and many national statistical offices have moved to relational database formats. Databases can also be more robust, if correctly managed, and centralised database solutions reduce the dependence on specialised knowledge of domain-specific spreadsheet applications.

The use of relational databases also facilitates the introduction of external statistical software solutions. There is a growing body of such software solutions developed by national statistical offices, many of which are made available as open source software, free of charge. This re-use of software solutions between national statistical offices is becoming more widespread, as it saves each office having to develop all of its software itself.

One example of the re-use of free software developed by other statistical organisations is in the area of dissemination. It is becoming increasingly easy to implement a state-of-the-art statistical dissemination system based interactive databases and visualisation tools, using free

software such as "PC-Axis" (from Statistics Sweden) or ".Stat" from the OECD. As the NSC does not currently have such a system, it would be worth considering one of these options.

The NSC does not currently have an automated system for managing metadata. It would be important to develop such a system as part of the move towards a more standardised statistical production system. Many national statistical offices could advise on this, but, in general, the most effective metadata systems are often the simplest. The "IST" metadata-driven approach to statistical production, developed by Serbia and other Balkan countries, could be worth considering.

Data transfers within the national statistical system, and particularly with the National Bank, are currently rather ad-hoc, and may not be very secure. The assessors found cases of data transfer by paper, or files attached to e-mails. As part of the modernisation of statistical production systems, the NSC should consider implementing more secure data transfer systems, supported by the use of standard data formats. The SDMX (Statistical Data and Metadata exchange) format is widely used within the international statistical community, and its use is considered to be a good practice.

### *Recommendations*

25. The NSC should continue with plans to move towards a more process-oriented structure, in line with the GSBPM, to increase the standardisation of processes across statistical domains, starting with data collection and dissemination.

26. The NSC should continue activities to document all statistical processes according to the GSBPM and use this to improve interaction and the spread of good practices between statistical domains.

27. The NSC should, at the first available opportunity, move to the next stage of implementing the GSBPM by using it as a framework to organise a new statistical process or revise an existing one.

28. The NSC should consider holding regular seminars where one subject-matter area presents its work, to improve the knowledge of staff of the work of the NSC as a whole.

29. The NSC should be involved in the development of a national spatial data infrastructure for Kyrgyzstan and take advantage of the possibilities of geo-coding units and data to facilitate data integration and improve dissemination.

30. The NSC should move away from the use of Excel for statistical production, and implement more robust database solutions.

31. The NSC should consider the use of free and open-source software.

32. The NSC should implement an interactive data dissemination tool such as PC-Axis or .Stat.

33. The NSC should implement a metadata system but keep it as simple as possible.

34. The NSC should implement a secure means of electronic data transfer with the National Bank, using a standard data format such as SDMX.

# Chapter 9: Non-excessive burden on respondents

*Overview*

The NSC currently relies on full-coverage data collection in many areas. This is particularly true for economic statistics where mandatory reports from enterprises are the main data source. There are some sample surveys in specific statistical domains, for example, the quarterly household budget survey. The use of sampling seems to be gradually increasing, particularly for new activities.

The use of administrative data sources is also gradually increasing, facilitated by improved data access under the new Law on Official Statistics. The use of administrative data is expected to accelerate as a government digitalisation programme ("Taza Koom") is implemented. This will mean that administrative datasets that are currently only available in paper format, should increasingly be transformed to electronic files. The exchange of digital information across government will be facilitated by the implementation of the "Tunduk" system. The NSC has a long-term plan to move to a register-based population and housing census when the necessary infrastructure is developed.

The NSC has made considerable efforts to move to electronic data reporting in recent years. This work is on-going and is expected to allow the NSC to further reduce response burden. However, this transition has, so far, mainly consisted of reproducing existing paper questionnaires electronically. There could be further scope for burden reduction by making better use of the possibilities offered by electronic questionnaires, such as validation at source of data inputs, and better routing between questions.

The transition to electronic reporting also provides a good opportunity to remove any current duplication between forms. It will also allow the NSC to consider pre-filling some fields with existing data, so that respondents only have to confirm the data are correct, rather than providing them again.

*Recommendations*

35. The NSC should continue working with other government departments to identify and reduce duplication in data collection and improve data sharing.

36. The NSC should use the transition to e-reporting as an opportunity to evaluate whether all variables previously collected are still needed, and not simply create electronic versions of current forms.

# Chapter 10: Cost-effectiveness

*Overview*

Some issues relevant to this chapter are also covered in Chapter 3, Adequacy of Resources, and Chapter 13, Organisational and Structural Aspects. Chapter 3 highlights the need to improve the NSCs information technology infrastructure to reduce risk and improve efficiency. Chapter 13 highlights the need to move towards a process-based organisation structure to reduce duplication across subject-matter units, and to consider the future needs for staff at the district and regional levels, given the moves towards electronic reporting and the greater use of administrative data.

There is currently no systematic method for measuring the cost of individual statistical activities, though the costs of ad-hoc statistical surveys funded by external sources are estimated beforehand.

Chapter 8 describes the implementation of the Generic Statistical Business Process Model within the NSC, which is expected to increase cost-effectiveness and efficiency through greater standardisation of processes, methods and software tools.

As experiences in many National Statistical Institutes have shown, an increased digitalisation can generally be understood as one possibility to achieve a higher efficiency in many areas such as data collection, statistical production, dissemination and others. The NSC is increasing its use of administrative data and electronic reporting. This is described in Chapter 9 and is expected to improve efficiency whilst reducing response burden.

*Recommendations*

37. The NSC should consider developing a system for evaluating costs of statistical activities, e.g. work time accounting. Development and implementation could be tied to and support reorganisation towards process-based statistical production.

# Chapter 11: Relevance

*Overview*

The NSC has taken the first steps in user engagement, including conducting a quarterly user satisfaction survey. There are plans to extend this work to include re-establishing a Statistics Council, in line with the new legislation, and to increase consultations with user groups when developing the annual statistical programme.

There is limited information on how users are interacting with NSC products online, so this is an area that could be further developed, particularly to better understand how user needs change over time.

It was clear from discussions with users that the value and usefulness of NSC outputs could be better promoted, particularly within government. From exchanges with some selected experts during the GA exercise, they seemed generally satisfied with outputs, though more detail was requested by some. Users praised the responsiveness of the NSC to ad-hoc questions and seemed generally satisfied with the independence and objectivity of the NSC and its outputs.

Contacts with users of statistics in specific domains is currently rather informal and might benefit from the creation of sectoral user groups, e.g. for areas such as macro-economic statistics, labour market statistics, or others. This would also help to ensure, and possibly improve, the relevance of statistical outputs in these areas.

*Recommendations*

38. The NSC should take proactive measures to increase the understanding of the value of official statistics within government, and to promote evidence-based decision making.

39. The NSC should use web analytics to study the use of its Internet products, to help determine priorities for future developments, and to identify products that might be stopped.

40. The NSC should extend user consultation by creating user groups to advise on user needs for current and future statistical products.

# Chapter 12: Accessibility and clarity

*Overview*

The new Law on Official Statistics states that "Official statistics are disseminated on the basis of equal and simultaneous access of users" (Articles 5 and 30). Article 30 also provides for the free-or charge provision of official statistics, metadata and explanatory comments. Article 5 of the law requires that "official statistics are presented in a clear and understandable way" and that "applied methods and procedures are transparently communicated to users to ensure right interpretation of data".

Since the last Global Assessment, the NSC has made considerable improvements to its web site. A wide range of data is now available in Kyrgyz, Russian and English. A mobile app has also been launched with around 350 indicators.

The NSC is also making data available as machine-readable "open data" through its web site, and recently received the highest score for a Central Asian country in an independent review of open data provision.

Whilst data are published according to a release calendar, which is updated every 3 months and available on the NSC web site, there is currently no standard time for release on the given day. Some users would like to see this introduced, and it would bring the NSC in line with international best practices.

The NSC is investing efforts in further developing relations with the media and has put in place a press centre and monthly press conferences. In addition, the NSC has provided training for users from media organisations on statistical literacy and the main economic and social topics, though more training would be welcomed according to the media representatives met during the Global Assessment.

*Recommendation*

41. The NSC, the National Bank, and other producers of official statistics should introduce a standard release time for statistical outputs.

# Chapter 13: Organisational and structural aspects

*Overview*

## 13.1 Organisation of the National Statistical Institute

Currently, the organisation of the NSC is characterised by two main features; an organisational structure based on statistical domains, the so-called "stove-pipe" principle, and partial integration of the Main Computing Centre into the NSC. Furthermore, the regional structure of the NSC is inefficient and not conducive to modern digital data collection and electronic reporting.

The current organisation is based on statistical domains. Hence, it is limited by the usual rigidities of such an organisation and the relative isolation of each statistical domain from other domains, with fixed boundaries for management and staff as well as specific methodologies and procedures for each of the domains. This rigid structure does not encourage cooperation across the boundaries of the different domains and may in fact hinder it, nor does it encourage the use of standardised solutions for similar processes and tasks across the domains. The global assessors are of the opinion that the current organisational structure may function as a break on the development and modernisation of the NSC and its official statistics production.

In order to counteract the limitations of the traditional stove-pipe model in the production of official statistics, many countries have in recent years started to deploy the Generic Statistical Business Process Model (GSBPM). The main feature of the GSBPM is that the statistical processes are organised according to functions rather than statistical domains. Applying the GSBPM focuses on cooperation and coordination across boundaries of statistical domains, the use of standardised solutions for methodologies and applications in the various domains, and systematic application of quality management and control throughout the statistical business processes, including the systematic recording and use of process metadata to guide the reiterative statistical production. The NSC has recently been engaged in studying the GSBPM and applying its principles and structure for documenting several statistical processes. This is a necessary step in preparing for the adoption of the GSBPM for guiding the statistical processes of the NSC. The global assessors, however, are of the opinion that the NSC should consider reorganising its current operating structure; abandoning the domain based stove-pipe model and adopting the functional organisation of the GSBPM.

Concomitant with the reorganisation of the NSC, the MCC needs to be fully integrated within the NSC. The current position of the MCC is not tenable as it is. On the one hand, it serves as a main depository of data collected by the district (rayon) and regional (oblast) offices. The activities of the district and regional offices and the MCC are not streamlined and involve repetitious and inefficient data control. On the other hand, the MCC is the main processing unit of the NSC. Again, there is lack of coordination between the statistical processing of the MCC and the statistical analysis and production of the NSC.

## 13.2 Regional structure

The regional structure of the NSC is becoming old-fashioned, based as it is on the traditional methods of collecting data in the field at the district level, assembling and controlling the district data at the level of regions, and controlling and processing the regional data at the MCC/NSC. This structure is fast becoming obsolete due to technical changes and is highly

inefficient because of duplication of work. As regards the technical changes, two main changes in data collection for Kyrgyz official statistics seem bound to take place in the very near future; increased digital data collection at the primary collection level, i.e. the district (rayon) level, and increased centralisation of data collection at the NSC as a result of increased use of administrative data. The current three-layered regional structure of the NSC will need to give way for another structure adapted to the procedures and technologies of digital data collection, including the application of automatic control and editing in the data collection devices, and the increased collection and use of administrative data at the highest level. This entails that the whole production line from data collection in the field through control and editing to the final processing and analysis at the central level can and should be simplified and streamlined, reducing the number of instances concerned and cutting duplication of tasks. For administrative data, consideration may be given to possibilities of strengthening services for supporting the rendering and submitting of administrative records at the rayon or oblast levels. In any case, the regional structure and division of responsibilities need to evolve to encourage and facilitate the application of electronic data collection and reporting and greater use of administrative data.

## 13.3 Statistical Council

The global assessors are aware of discussions on the size and the functions of the Statistical Council which will be reconstituted under the new Law on Official Statistics. As stated in chapter 1 of this report, they are of the opinion that the role of the Council should be limited to that of an advisory body in accordance with the Law. As regards the size of the Council, the global assessors recommended at the close of their first mission that, for the sake of efficiency, the number of Council members should be kept rather small, i.e. no more than 10-15 members. The current version of the Regulation on the Council stipulates that there should be 15 council members. It is recommended both that the number of council members will not be increased beyond that and that the Council should not be allowed to expand through multiple task forces and similar bodies.

*Recommendations*

42. The NSC should start preparing to adopt a new organisational structure based on the GSBPM and abandon the current domain-based structure.

43. The NSC should reconsider its regional structure, making it fit to deal with digital data collection and streamlining the electronic flow of data and data control.

44. The MCC should be developed into an integrated division of the NSC for the reception and processing of both survey data and administrative data.

45. The reconstituted Statistical Council should be fully aligned with its role as an advisory body on statistical policies and practices. The Council should not be overly large, containing some 10-15 members. The Council should not be allowed to expand through multiple task forces and similar bodies.

# Chapter 14: Coordination

## 14.1 Coordination of the National Statistical System

*Overview*

Chapter 2 of the recent "Law of the Kyrgyz Republic on Official Statistics, 2019" (hereafter called the Law on Statistics) provides the legal basis for the organisation of the National Statistical System (NSS) in Kyrgyzstan. It determines the National Statistical Committee of the Kyrgyz Republic as well as other producers of official statistics – such as the respective statistical subdivisions of the National Bank as well as national and local authorities involved in the production of official statistics – as the central statistical producers in the NSS.

Furthermore, the law specifies that the National Statistical Committee (NSC) of the Kyrgyz Republic is not only the leading producer of official statistics but also ensures coordination of activities on development, production and dissemination of official statistics in the NSS. The chairperson of the NSC provides a list with other administrative bodies to be considered producers of official statistics to the Kyrgyz government for approval.

The chairperson also proposes the composition of the Statistical Council – an advisory body to the NSC consisting of representatives of different groups of users of official statistics – to the President of the Kyrgyz Republic (see also chapter 3 of the Law on Official Statistics).
Chapter 4 of the Law on Official Statistics gives the legal basis for the coordination of the NSS. On the formal side, coordination of the NSS is mainly achieved through issuing statistical midterm and annual statistical programmes. Those programmes are provided for recommendations to the Statistical Council and after approved by the Kyrgyz government. The mid-term statistical programme defines the areas of strategic development priorities for the NSS over five years, including a specification of the necessary resources. The annual programme targets the statistical activities implemented by the producers of official statistics in the NSS. The NSC also publishes an up-to-date release calendar, publicly available on their website (http://www.stat.kg/en/publications).

The NSC seeks actively for consultations with users of official statistics for setting-up the annual statistical programme, which the Statistical Council reviews and evaluates its implementation. The NSC also conducts regular user satisfaction surveys; via an online form, users have the opportunity to give feedback on their satisfaction with the services provided by the NSC. Around 7000 respondents per year provide feedback to the NSC in this way – also via regional offices.

In total, 47 district offices collect data and deliver them to the seven regional and 2 city statistical offices, which then provide the data to the NSC.

The NSC also maintains a main computing cent and an institute of statistical research.

The assessors had the general impression that the legal provisions for the organisation and coordination of the NSS in Kyrgyzstan correspond to international recommendations and build a solid basis for the organisation of the Kyrgyz NSS. However, the law is rather new (2019) and not all provisions have yet been implemented (state spring 2020). Currently, no exhaustive list with producers of official statistics exists. It is also often not clear by which means the NSS in general and data providers in particular will be coordinated. Some problems are persisting that are mainly linked to missing digitalisation of data transmitted to

the NSC; e.g. most of administrative data is still delivered in paper form to the NSC and metadata is often missing, also due to a missing common metadata system in the NSS.

*Recommendations*

46. The NSC and other producers of official statistics should define which organisations are part of the national statistical system.

47. The NSC should define coordination mechanisms for the national statistical system and for data providers in the new Regulation on the NSC.

48. The NSC should develop its capacity in coordination, ready to take on the roles envisaged in the new law.

## 14.2 Coordination of international cooperation and donors

*Overview*

The Kyrgyz Law on Statistics states under article 34 on "International Relations of the National Statistical Committee", that the NSC has the right to establish and maintain international relations with government bodies and international organisations dealing with statistics.

The NSC maintains cooperation with different international organisations such as e.g. the World Bank, different UN bodies (UNECE, UNFPA, UNICEF, UNSD), Eurostat, EFTA, the IMF and CIS Stat, of which some are also listed on NSC's webpage under the link "International organisations".

Noteworthy is a current project with the World Bank providing 17.5 million US Dollars to the NSC of which half the sum is given as a loan. The UNECE, EFTA and Eurostat include the NSC regularly in their regional conference and training programmes targeting the Eastern Europe, Caucasus and Central Asian countries (EECCA) and provide Global Assessments and/or other reviews if requested so.

The NSC has also received support by the Norwegian Statistical Office (SSB) and the German GIZ, especially as concerns the development of e-forms (e.g. for small and medium enterprises).

The assessors gained the impression during the first mission of the Global Assessment 2020 that the NSC actively seeks the exchange and support with/from different international partners in order to assure statistical production is up to international standards. In addition, the NSC is striving to develop further the NSC capacities through cooperation projects with international organisations, as well as by sending staff to regional training courses. Since it was not always clear what strategy the NSC pursues as concerns cooperation with external and international partners and donors, the NSC should consider developing a strategy for the support sought from international donors for various needs.

*Recommendation*

49. The NSC should further develop mechanisms for interaction with, and coordination of, international organisations and donors.

## 14.3 Sustainable Development Goal Indicators

*Overview*

The NSC has made, and continues to make good progress on developing statistics to monitor the implementation of the Sustainable Development Goals (SDGs). A national coordinating commission has been established with 5 sub-groups. The NSC is represented in all of these, and chairs the sub-group on monitoring and evaluation. A national reporting platform has been developed in line with the Conference of European Statisticians Roadmap on SDG Statistics, using the "Open SDG" platform.

So far, 102 of the 231 unique global SDG indicators are available. 35 more global indicators (according to road map of SDG monitoring) are planned. In addition, 57 national indicators are available, which provide proxies for global indicators. Another 27 national SDG indicators are planned. Metadata for SDG indicators is also available through the platform, and the NSC is developing guidelines on metadata for broad audiences.

In 2020, a voluntary national review of the implementation of the SDGs in Kyrgyzstan noted that the provision of disaggregated data is more of an issue than the coverage of indicators. Efforts to improve the availability of disaggregated data were helped by a multi-indicator cluster survey (MICS) in 2018 and will be further boosted by the population and housing census, now due to be conducted in 2021.

NSC staff have been actively involved in various international activities regarding SDG statistics, including representing the Central Asia region on the Inter-Agency and Expert Group on SDG Indicators, and the Conference of European Statisticians Steering Group on SDG Statistics.

Priorities for future work include the development of a strategy for monitoring the SDGs, and an associated action plan. This will focus on adding indicators and improving the availability of disaggregated data. A communication strategy is also planned to improve interactions with producers and users of SDG statistics.

*Recommendation*

50. The NSC should continue the good progress in the development and implementation of statistics for the SDGs, with a focus on improving the range of indicators covered and the availability of disaggregated data.

# Chapter 15: Macroeconomic statistics

## 15.1 National accounts

*Overview*

The NSC has compiled annual national accounts since 1993 and quarterly accounts since 1995. In addition, the gross regional product has been compiled since 1995. The current practices are in line with the recommendations of the System of National Accounts (SNA) 1993. The latest international classifications are used in the compilation. The sequence of accounts is presented up to the capital account. For residents, accounts are available by five institutional sectors. Linkages between residents and non-residents (international transactions) are reflected in the Rest of the World account. The production account, the generation of income account are compiled by types of economic activities. The Financial account is not yet produced. Geographically the entire territory of the Kyrgyz Republic is covered. Both annual and quarterly accounts include estimates for the non-observed economy since 1995. The estimates on the size of the non-observed economy in value terms and by economic activity are calculated on annual basis. The current expenditure and income of general government units are recorded on a cash basis.

In the Kyrgyz Republic, input-output tables (IOT) have been compiled annually since 1994. Since 2017, the production interval was changed to every three years. Supply and use tables (SUT) are compiled annually since the 2016 reference year. A proper software for the compilation of SUT and the transformation of SUT to IOT would facilitate the production process.

The work towards the implementation of the 2008 SNA is underway since the beginning of 2017. There are several experimental estimates already produced to improve the quality and exhaustiveness of the national accounts and to meet the requirements of the 2008 SNA. These include estimates for illegal activities, expenditures on research and development (and their capitalization), financial intermediation services indirectly measured (FISIM), output of the central bank, owner-occupied housing services and adjustment of household assets in pension funds. The National Accounts department has a clear understanding of the remaining issues and plans for tackling them. The purpose is to implement all the new methodologies in one go by the end of 2022. In addition, the implementation of the System of Environmental-Economic Accounting (SEEA) forestry accounts is ongoing.

### Organisation and international cooperation

Department for Economic Statistics and National Accounts in the NSC consist of nine persons, only three of them having a long experience in compiling national accounts. There are no additional national accounts' experts at the regional offices or in the MCC. The high turnover and lack of qualified staff are a challenge in the national accounts department. Proper implementation of the 2008 SNA and the compilation of financial and other remaining accounts would benefit from training of the current staff and recruiting additional skilled resources. This may, however, be challenging with the current financial resources.

There is also a need for training and supporting respondents in filling in the questionnaires. Sometimes the quality of data received from respondents is not good enough. Moving to electronic data collection with proper validations could improve the situation.

International experts should be hired to help with the development of required new methodologies. This assistance should cover SUT and IOT calculation, improvement of sectoral accounts, compiling the financial account and other remaining accounts, implementation of the perpetual inventory method (PIM) or other alternative method of assets revaluation and finalizing the move to 2008 SNA.

**Current practices**

GDP is compiled by all three approaches, i.e. production, expenditure and income. The main method is the production method. GDP by production approach is calculated annually, quarterly and monthly in current prices, prices of the previous year and prices of a base year. GDP by production approach is also calculated according to 7 regions and the cities of Bishkek and Osh. GDP is also compiled by the expenditure approach (annually and quarterly in current prices and previous year's prices) and the income approach (annually in current prices only). The data used in these three approaches are coherent. There is no statistical discrepancy remaining in annual calculations after repeated balancing based on revised and verified input and output data.

All classifications used to produce national accounts comply with international standards. The main classifications applied are:

- State Classification of Types of Economic Activity SCEA-3 (based on ISIC, rev.4) 2010
- Classification of Individual Consumption by Purpose (COICOP)
- Classification of Functions of Government (COFOG)
- Standard International Trade Classification (SITC)

In addition, the following classifications are used:
- State Statistical Classification of Products (goods and services) SSCP-3
- State Classification of Fixed Assets (in accordance with 2008 SNA)
- State Statistical Classification of Financial Assets (in accordance with 2008 SNA)
- State Classification of Institutional Sectors of the Economy (in accordance with 2008 SNA)

A wide range of data sources are used in the compilation of national accounts. Primary data sources are:

- Full count surveys (of enterprises, banks, insurance companies, budget-funded organizations, non-profit organizations)
- Sample surveys (Household Budget and Labour Force (HLFS) surveys, surveys of small agricultural producers, surveys on prices, surveys on trade)
- Balance of Payments statistics (produced by the National Bank of the Kyrgyz Republic (NBKR))
- Banking statistics provided by the NBKR and commercial banks
- Report on the execution of the state budget (Ministry of Finance of the Kyrgyz Republic)
- Report on Budget Execution of the Social Fund
- Report on the budget execution of the Compulsory Medical Insurance Fund
- Data from the State Tax Service of the Kyrgyz Republic
- Data from the State Customs Service on import and export of goods

- Data from other ministries and agencies

Recently, the NSC has gained access to new administrative data sources and is currently analysing the quality and usefulness of those data. Their full potential should be utilised to make the production process more effective and to produce national accounts according to the latest international standards.

**Work plan and dissemination**

Preliminary annual GDP is published 10-15 days and the final national accounts data 10-11 months after the reporting period. Preliminary quarterly accounts are available 90 days after the end of the reference quarter and they become final after reconciliation with the annual national accounts in November of the following year. Monthly preliminary estimates of GDP are posted on the website 8-15 days after the end of the reference period.

The main distribution media is the official website of NSC (http://www.stat.kg/). An advance release calendar is available on the website of NSC. Annual and quarterly national accounts data are published also in paper publications. An advance schedule of publications is presented in the annual statistical work program. Implementation of an interactive dissemination database would improve usability of national accounts data.

In addition, national accounts data and metadata are available through IMF's dissemination standards bulletin board following the Special Data Dissemination Standard (SDDS).

**Challenges and future plans**

Department for economic statistics and national accounts of the NSC faces many challenges in the coming years. Taking into account the current financial and staff resources, clear planning and prioritisation is necessary. The main challenges are:

- Implementation of the 2008 SNA
- Improving the compilation of sectoral accounts
- Acquiring software and training staff for the compilation of SUT/IOT
- Implementing the perpetual inventory method (PIM), or another alternative method of asset revaluation for measuring stocks and flows of fixed assets, and completion of the transition to 2008 SNA.
- Estimation of financial assets and other non-produced assets (tangible and intangible)
- Compilation of the financial account
- Compilation of other remaining accounts

*Recommendations*

NSC is encouraged to:

51. Continue developing and implementing carefully but without a delay the concepts of the 2008 SNA and start publishing the data with time series back to 2010 (look for the best practices in back calculation), inform users well in advance of the upcoming revision and cooperate and coordinate with colleagues from other relevant entities within the NSC and beyond.

52. Strengthen the interagency cooperation with the Ministry of Finance, National Bank and other relevant data producers on expert level (working group) in order to

coordinate the changes (e.g. in classifications or administrative data collection) and to advance development work.

53. Clearly indicate the limitations that current staff resources put for completing all the necessary improvements.

54. Analyse the quality of administrative data and use it in electronic format as soon as possible.

55. Consider purchasing software for the compilation of SUT and the transformation of SUT to IOT.

56. Further develop estimates for imputed rent of owner-occupied housing and for illegal activities and incorporate them into the National Accounts.

57. Continue developing financial accounts within the forthcoming World Bank project and with relevant partners.

58. Explore the feasibility of implementing the perpetual inventory method (PIM), or another alternative method of asset revaluation for measuring stocks and flows of fixed assets, to complete the transition to 2008 SNA.

## 15.2 Government finance statistics

*Overview*

Responsibility for producing and disseminating GFS is divided between the Ministry of Finance and the NSC. In the NSC, the responsible unit is the department of finance statistics. GFS is based on administrative data from the Ministry of Finance, Central Treasury of the Ministry of Finance, Social Fund and State Tax Service. The NSC uses the data for the production and dissemination of official statistics.

GFS is compiled according to the IMF's Government Finance Statistics Manual (GFSM) 2001. The data cover only budget institutions. Off-budget operations and social security program operations (Social Fund) are not included in the data. Data on central government and local authorities are compiled on a cash basis. The fiscal year corresponds with the calendar year.

## Organisation and international cooperation

Department of Finance Statistics of the NSC consist of 5 persons. A leading specialist is in charge of the conduct of GFS. The regional offices of the NSC are responsible for statistics on local budgets (according to the Central Treasury). The cooperation between the Ministry of Finance and NSC is very good, but mostly based on informal contacts. Meetings and workshops are held, but no official cooperation on the expert level exists between the organisations.

Involving international experts in improving the delineation of the general government sector would be advisable.

## Current practices

The Central Treasury produces monthly and annual reports on the execution of the state budget. Responsible unit in NSC supplements and processes the results in order to meet the

requirements of national accounts. The major deviation from the requirements of the SNA is the cash base recording of income and expenditure of the budget.

Classifications used are based on IMF's Government Finance Statistics Manual (GFSM) 2001.

- Classification of income
- Classification of expenditures by functions of governments
- Economic classification of expenditures
- Classification of operations with assets and liabilities
- Administrative classification of governing bodies

**Work plan and dissemination**

The Central Treasury publishes summary reports on the website of the Ministry of Finance. Reports are also included in the paper publications of the Ministry. The data are preliminary when first released. The data become final after reconciliation with the annual report in May of the following year.

NSC publishes long time-series of GFS data (annual and monthly) on its website, thus making them part of official statistics.

Metadata on GFS are available through IMF's dissemination standards bulletin board following the Special Data Dissemination Standard (SDDS).

**Challenges and future plans**

The implementation of the GFSM 2014 will take place in 2021. In this context, there are plans for a systematic recording of data on an accrual basis.

There are some challenges in the delineation of the general government sector. This is mainly due to the entities that are not fully financed through the national budget. The work in improving the delineation of the general government sector could benefit from involvement of international experts.

*Recommendations*

NSC and Ministry of Finance are encouraged to:

59. Improve communication on the expert level between NSC and the Ministry of Finance.
60. Implement the GFSM 2014 guidelines for the production of GFS as soon as possible and apply the accrual accounting principle for data recording.
61. Set up a working group to develop guidelines for the delineation of the general government sector and the correct classification of entities. Involve international experts to facilitate the work.

## 15.3 External Trade Statistics

*Overview*

The NSC is responsible for compiling external trade statistics of goods and services. Statistics are compiled by commodities, types of services and partner countries. Main data sources consist of surveys conducted by NSC and administrative datasets of from the State Customs Service, the National Bank and the State Tax Service.

**Organisation and international cooperation**

The NSC has, at the central office level, four persons working at the department of foreign trade statistics. In addition, the MCC has a department for preparing data on foreign trade activities. Specialists at regional and district level offices perform the data collection conducted by the NSC. Capacity building in the form of staff training in the area of foreign trade in goods and services staff would be beneficial.

At international level, the NSC is committed to mirror exercises with major trade partner countries. The work towards solving the reasons for trade asymmetries with China is very important.

Important international cooperation is also ongoing with the Eurasian Economic Union (EAEU). As mutual trade data with the EAEU member states are collected through a survey, the coverage of respondents is checked on a quarterly, semi-annual and annual basis against the data from the State Tax Service. To ensure the quality of data, NSC annually conducts bilateral comparisons of export and import volumes on the level of goods with other EAEU member states. Based on a signed Memorandum, even micro data can be exchanged with Russia and Kazakhstan to find the reasons for possible asymmetries.

**Current practices**

Production of foreign trade statistics is based on two approved methodologies - one for mutual trade with the EAEU member states and another for trade with third countries. Definitions and classifications recommended by international manuals are applied for the compilation of foreign trade and mutual trade statistics.

- International Merchandise Trade Statistics: Concepts and Definitions 2010
- Balance of Payments Manual, 6th edition, 2010
- Manual on Statistics of International Trade in Services 2010
- Standard International Trade Classification (SITC) Revision 4
- Eurasian Economic Union's Commodity Nomenclature of Foreign Economic Activity (EAEU CN of FEA)
- Classification by Broad Economic Categories (BEC) Revision 4
- Standard Country or Area Codes for Statistical Use (M49)
- State Classification of Types of Economic Activity CCEA-3 (based on ISIC, rev.4) 2010
- Interstate classification of currencies
- Unified State Register of Statistical Units (USRSE)
- State classification on Administrative and Territorial division of the KR (SC ATD)

The main data source for mutual trade in goods is a monthly survey conducted by the NSC. All economic entities engaged in foreign trade of goods with the Eurasian Economic Union member states are covered in the survey.

The main data source for the trade third countries is the monthly received administrative dataset from the State Customs Service. It consists of declarations of exported or imported goods.
Additional data for both mutual and foreign trade statistics are gathered through special monthly surveys on export and import of gas, electricity and bunker fuel, and on livestock markets (bazaars) in border regions.

The NSC also conducts a survey on the turnover of traded goods at the border crossing points with the Republic of Kazakhstan. This survey brings additional monthly information for the mutual trade statistics on the goods exported or imported by individuals. The main data source for mutual and foreign trade in services are the NCS survey on export and import of services and the National Bank data on foreign trade in services through the banking system.

**Work plan and dissemination**

Foreign trade in goods statistics are released according to the statistical work plan. Preliminary monthly data are published around 45 days after the reference period. Preliminary annual data becomes available in about 50 days and the final annual data during the third quarter after the end of the reference year. Monthly data are revised once the final annual data is available. Statistics are published monthly, quarterly and annually in various NSC paper publications and on the website. Regularly updated metadata is also available on the NSC website.

**Challenges and future plans**

The current IT platform for compiling foreign trade statistics needs improvements. A new solution for receiving and processing data should include the electronic reporting of mutual trade with other EAEU countries.

A new methodology for calculating monthly average prices and volume indices in external and mutual trade in goods should be developed.

New areas of foreign trade, such as e-commerce and cross-border commodity trade, should be studied and methodologies to better include them in foreign trade statistics should be developed.

Further, the estimation of the volume of commodity flows in the border areas with Uzbekistan, Tajikistan, China by individuals and entities that do not report to the State Customs Service should be improved.

*Recommendations*

NSC is encouraged to:

62. Replace the IT-solution used for the compilation of foreign trade statistics.

63. Continue the practice of conducting mirror exercises with the Eurasian Economic Union and with other important trade partners, while ensuring statistical confidentiality.

64. Promote participation of NSC in mirror studies between Kyrgyz Customs and Chinese Custom, while ensuring statistical confidentiality.

65. Further develop methodologies for e-commerce and cross-border commodity trade by individuals.

## 15.4 Balance of Payments

### *Overview*

The balance of payments is compiled by the Balance of Payment and external Debt Division of the National Bank since 1993. Currently, the classifications and definitions of both the fifth and sixth edition of the IMF Balance of Payments Manual (BPM5 and BPM6) are followed. Data cover all resident units of the Kyrgyz Republic and their transactions with the rest of the world. Non-observed economic activities are estimated for export of goods and remittances. Adjustments for illicit trade are not made. The Head of the Financial Statistics and Review Department has the sole responsibility for deciding on statistical methods, standards and procedures of producing balance of payments statistics.

### Organisation and international cooperation

Compiling balance of payments statistics involves resources from both the NSC and the National Bank. Formal cooperation agreements exist between these two and other public institutions concerning the collection, compilation, and dissemination of balance of payments statistics. There is good communication among producers of official statistics in different institutions. Meetings are held when necessary to discuss conceptual and methodological issues. On an annual basis, the Financial Statistics and Review Department of the National Bank participates in the revision of questionnaires used by the NSC for surveys to ensure appropriate coverage and consistency with the statistics produced. There is also a MoU between the National Bank and the NSC on data provision.

The NSC provides data for external trade of goods and services. It is also responsible for FDI data collection which is done on a quarterly and annual basis through full count surveys of enterprises and organizations with foreign capital, as well as enterprises and organizations with capital in foreign companies. Data are collected following the BPM6 format based on the asset/liability principle.

Value of exports and imports of goods in balance of payments statistics is calculated on a FOB basis. CIF/FOB adjustment is made by the National Bank based on the coefficients created by the NSC from a survey of major importers (around 400 enterprises) conducted in 2007. Other transactions are evaluated at the market prices. Additional adjustments are made by the National Bank on re-exports of light oil products.

### Current practices

The compilation of balance of payments statistics is already largely in accordance with the BPM6, but the official publication is still according to BPM5. The National Bank additionally publishes summary information based on BMP6. Classifications by institutional sectors and financial instruments are fully consistent with international standards. Data are also consistent or reconcilable with merchandise trade, national accounts and monetary statistics. To facilitate internal consistency with national accounts, the balance of payments should be compiled

according to BPM5 (along with the BPM6 version), until the transition to the SNA 2008 methodology is completed.

Data for compiling balance of payments statistics are derived from several sources. For the current account, the NSC provides data on exports and imports of goods.

Export and import of services are compiled based on several data sources:

- Exports of transportation services are estimated based on data collected by NSC from transport organizations and other agencies (by types of transportation) and data collected through the international transactions reporting system (ITRS[1]).
- Data on travel services is based on information from customs declarations, surveys of tourist companies (the number of persons entering/leaving the country) and standard government allowance for business trips.
- Construction services are compiled based on ITRS data.
- Data on government services are collected by the National Bank through ITRS and provided by the Ministry for Foreign Affairs.
- Data for financial services comes from ITRS.
- Communication services and other business services are compiled by data from NSC and ITRS.

Compensation of employees is based on NSC surveys from large enterprises employing foreign staff and from industrial companies.

Data on income from direct investments are obtained from the NSC. Data on income from portfolio investments and other investments include data from National Bank, Ministry of Finance, NSC and commercial banks.

Data on transfers are divided into current and capital transfers. Data on humanitarian aid are provided by NSC. Technical assistance data are based on estimates of the IMF. The National Bank provides data on contributions to funds of international organizations. Data on worker's remittances are compiled on the basis of ITRS and NSC data on postal remittances. The National Bank compiles data on official capital transfers. To estimate transfers of migrants the NSC submits data on number of migrants. The National Bank uses estimations on cost of assets of households.

For the financial accounts the data sources are the following:

- The NSC compiles data on direct investments from joint and foreign companies and the National Bank on the banking system.
- Data on portfolio investment are compiled from the National Bank, commercial banks and the NSC.
- Data on derivative financial instruments are compiled from commercial banks.
- The National Bank compiles data on foreign assets/liabilities from commercial banks.
- The Ministry of Finance provides data on drawings of foreign loans of the Government and data on public debt service.
- Data on loans of National Bank are obtained from internal sources.

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[1] ITRS data are collected and processed by the National Bank.

- The NSC provides data on non-government debt.
- Data on trade credits with non-residents and data on accounts of residents abroad are compiled by the NSC.
- The National Bank obtains data on other assets (mainly contributions of Kyrgyzstan to the funds of international financial institutions).
- Data on reserve assets and IMF credits and other assets and liabilities of the National Bank are obtained from internal sources.

## Work plan and dissemination

Preliminary data are disseminated on the National Bank website and bulletin no later than three months following the end of the reference quarter. Final data are published four months after the reference quarter in the publication "Balance of Payments of the Kyrgyz Republic".

The National Bank publishes balance of payments time-series in US dollars since 2001 on its website. The more detailed presentation is available in the February, June, August and November issues of the quarterly Balance of Payments of the Kyrgyz Republic, published in three languages (Russian, English, and Kyrgyz) since 1998[2]. The publication also provides metadata on data sources, compilation procedures, and various adjustments.

Revisions may be made throughout the reporting year. Further, the National Bank reserves the right to adjust the data for the period of ten years.

## Challenges and future plans

The National Bank plans to finalise the implementation on the BPM6 soon. It is important to guarantee production of balance of payments data according to BPM5 for national accounts and consistency purposes until the move to 2008 SNA is finalized.

The NSC should advance the developments planned for the external trade statistics and statistics on services. It should further develop the production system of the FDI statistics, for instance by implementing the e-forms system for data collection.

### *Recommendations*

The NSC and National Bank are encouraged to:

66. Confirm that National Bank continues producing balance of payments statistics according to BPM5 until the move to 2008 SNA is finalized.

67. Continue good communication to guarantee the quality of the source data for both national accounts and balance of payments (e.g. external trade in services, remittances, CIF/FOB adjustment etc.), including collaboration under the new Law of Kyrgyz Republic on Official Statistics.

68. Transform the FDI questionnaire to e-forms system.

69. Consider cooperation in developing financial accounts in the context of national accounts.

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[2] The final data are ready at the end of January, May, July and October, but publishing on the website takes about 2 weeks.

## 15.5 Consumer Price Indices, Housing and PPPs

*Overview*

The Consumer Price Index (CPI) is compiled by the department of price statistics of the NSC in accordance with the current Consumer Price Index Manual: Theory and Practice (ILO, IMF, OECD, Eurostat, UN, World Bank). The representative goods used in CPI calculations are distributed according to the classification of expenditures by purpose that is in line with the international standard (COICOP).

## Organisation and international cooperation

Staff resources at the central office and MCC are quite limited and the turnover, especially in the MCC, is high.

The geographic coverage of CPI has been expanded within the 2015-2019 Program for Improvement and Development of state statistics. A World Bank project took place to facilitate the development work. Currently, the price collectors at local offices (24 people) collect prices in 16 cities and 2 villages. The population of the selected cities covers at least 35% of the urban population of the region.

In 2013, within the FAO supported project, the data collection was moved from the paper form to electronic format using CAPI technology. A new mobile application running on smartphones was developed. This application allows sending prices registered in retail outlets directly to the database in NSC.

## Current practices

The index is compiled using Laspeyres method from price data for 371 goods and services, which are collected from more than 2000 sampled enterprises. They are selected as a sample of goods and services most commonly consumed by the population for all areas. In total, around 45,000 prices are collected each month. The data collection period is from the 1st to the 30th day of each month. Imputing missing prices takes place during the calculation.

The 371 goods and services consist of 107 food and non-alcoholic beverage items, 9 alcoholic beverages and tobacco products, 194 non-food items and 61 services. Their prices are collected daily, weekly and monthly as indicated below:

- Daily: 17 food items, gasoline and fuel
- Weekly: 81 food items
- Monthly: 190 non-food items, 61 services, alcohol and tobacco products, 9 canned goods and 10 dried fruits

The structure of consumer spending derived from a sample household survey is used as a weight structure of the index calculation. Current weights from 2018/2019 have been used since January 2020/2021).

The calculation program includes procedures to impute missing prices using the price movement of an equivalent good or group. Goods and services that are unavailable for a prolonged period are subject to substitution. Substitution objects are duly chosen usually at the end of the year. Adjustment for difference in quality is made by substituting the product

with a new one. Completely new products are normally presented at the time weights are replaced.

**Work plan and dissemination**

The index is published monthly for four major groups of goods and services (food, alcoholic beverages and tobacco, non-food goods, and services) at the level of country and with a territorial breakdown. The data are final when published.

**Challenges and future plans**

The main challenge is to improve the production system by automating the calculation as far as possible. This would benefit from implementing in validations already in the mobile application used by price collectors. Price statistics are not included in the e-form pilot.

Creating a database with long time-series, implementing the methodology of chain linking with new weights every year, seasonal adjustment and quality adjustments should all be considered. The geographical coverage could also be further improved. Taking into account the limited resources, improvements should be carefully prioritised.

The CPI is currently mostly missing the housing component. There are plans to implement rents and real estate prices.

The new round of purchasing power parities would benefit from additional resources.

*Recommendations*

NSC is encouraged to:

70. Improve the mobile application of price collectors by including automatic data validations.
71. Replace the current Excel-based production system by proper database and software for index calculation.
72. Improve the housing component of the CPI by including rents and real estate prices.
73. Consider including a treatment for quality changes in products.
74. Strengthen resources for the new PPP round.

# Chapter 16: Business statistics

## 16.1 Statistical business register (SBR)

### *Overview*

The "Unified State Register of Statistical Entities (USRSE)" contains basic official data on all economic units established in the Kyrgyz Republic. The legal basis for the collection of data on businesses and the maintenance of the statistical business register at the NSC comes from:

- The Law of the Kyrgyz Republic "On Official Statistics", 2019 No. 82;
- The Law of the Kyrgyz Republic "On state registration of legal entities, branches (representative offices)", 2009, No. 57;
- Decree of the Government of the Kyrgyz Republic, 2002, No. 42 "On the mandatory use of the general identification code of enterprises, organizations and individual entrepreneurs (OKPO) and codes of state classifiers".

The USRSE uses different data sources, such as:
- Data on the registration of legal persons (provided by the Ministry of Justice);
- Weekly data on individual entrepreneurs (provided by the State Tax Service) – the NSC has access to the tax base register which provides the tax codes of the enterprises since January 2016; and
- Statistical censuses, surveys, statistical reporting, information from administrative registers and the Internet.

The USRSE contains approximately 900.000 business entities of which approximately 724.000 are active. Kyrgyzstan's business register also includes information on enterprise groups. Data from Ministry of Justice, Tax Service and from other possible sources for better identifying enterprise groups, should be further investigated and analysed. Although the USRSE provides full coverage of economic units and geographical coverage, there is currently no systematic coverage of "self-employed" in the USRSE. The "2010 Eurostat Business Register Recommendations Manual" points out in this regard:

"One of the most problematic areas of under-coverage in registers concerns self-employed professionals (non-employers or one-person enterprises), who play a very important role in several NACE sections. Many countries have administrative sources covering at least some of these, e.g. social security sources, tax files on persons, files of Chambers of Crafts, lists of doctors, etc. Nevertheless, attempts should be made to include these units in the statistical business register wherever possible."

To a large extent data are still provided to the NSC in paper form. Recently a platform ("Tunduk") for the exchange of data between administrative bodies and the NSC has been set up. The Tunduk system is currently only used by the NSC for receiving data from the Ministry of Justice. In the future, the system will also be used for the data retrieval with the tax authorities. The NSC has already concluded an agreement with the tax authorities on info/data exchange via Tunduk.

The NSC recently received support from SSB Norway for the modernisation of the USRSE statistical business register in order to transform it into a more standard Statistical Business

Register (SBR). The aim of this project was to bring the USRSE in line with UNECE and 2008 SNA recommendations. However, this project was not completed.

The new classification for economic sectors is now in place in the USRSE. Problems still persist as concerns mapping the public sector through the information contained in the USRSE.

### Recommendations

The NSC should:

75. Increase the coverage of its business register and business statistics by including individual entrepreneurs working on a patent. Primarily this should be done by using administrative data from the tax service, but where necessary, by conducting targeted business censuses of enterprises and individual entrepreneurs. More complete business register would allow wider use of sample surveys.

76. Extend the use of the Tunduk System also to the exchange of data with the tax authorities.

77. Identify data sources and develop mechanism for detecting and deleting dead units from the register.


## 16.2 Structural business statistics

### Overview

There is no dedicated section at the NSC that deals with structural business statistics and/or enterprise demography. The statistics production takes place in units based on statistical domains, which compile annual, quarterly and monthly statistics on the area they are responsible for. Those statistics are based on exhaustive statistical reporting on turnover on monthly, quarterly (small legal units) and annual basis, and sample surveys of individual entrepreneurs. In standard publications monthly and quarterly data are presented on cumulative basis. Further, the SBR (USRSE) contains partial information on enterprise births and deaths. The NSC publishes some information on business demography, notably in the context of an annual publication on small and medium enterprises (SMEs). As concerns enterprise structure, information on the distribution of employment on local entities comes through survey.

One problem as stated by the NSC lies in the relatively few and unexperienced staff available for this work. There are only five persons at the NSC and four persons at the Main Computing Center (MCC) that work on the Business Register and all statistics related to it.

As already mentioned in the chapter on the SBR/USRSE above, one problem consists in the missing digitalization of data handling; administrative data from other bodies in the Kyrgyz Republic mostly comes in paper form. A main challenge in this regard is the transition to the new e-form system, which started for SMEs end 2019, and the question how the old output tables can be maintained. The Norwegian project on development of a statistical model business register in accordance with the UNECE and 2008 SNA guidelines also supported the work related to e-forms, but was not completed.

*Recommendations*

The NSC should:

78. Consider creating a unit to deal with Structural Business Statistics and Business Demography and provide the necessary human resources to deal with related statistics.

79. Investigate further use of administrative data to reduce the burden on respondents.

80. Speed up the transition to electronic reporting.

81. Extend the use of sample surveys.


## 16.3 Short Term Statistics (STS) including PPI

*Overview*

The NSC produces many short-term business statistics, mostly on a discrete monthly basis, including industrial production, output in construction, investment, turnover in retail and wholesale trade and services, services volume, and producer prices. According to the program of statistical work, STS also include quarterly indicators of the number of employees and wages by economic activity. Some short-term indicators, such as those on SMEs, are released quarterly as cumulative data only.

STS also include statistics on energy with information on supply and transformation of energy commodities, renewables, oil and petroleum strategic stocks. GDP is also compiled monthly by production approach, and quarterly by expenditure approach. Other short-term releases on a quarterly basis include enterprises, institutions and individual entrepreneurs active in tourism.

The STS produced are largely consistent with major international recommendations and classifications. In addition to the Law on official statistics of 8 July 2019, the program of statistical work provides the framework for STS production.

### Current practices

The key data sources are statistical forms, i.e., surveys of businesses by economic activity. The STS on industry, construction, trade and services are based on complete enumeration of legal entities: Monthly and annual reporting includes large and medium enterprises, and quarterly and annual reporting comes from the smaller enterprises. Data of the State Tax Service of the Kyrgyz Republic on the number of patents (a form of simplified taxes) are also used. Individual entrepreneurs are covered by quarterly sample surveys to measure their turnover.

The NSC provides the users of statistics with detailed metadata on their website accompanying statistical releases.

### Work plan and dissemination

The STS are published according to an advance release calendar. STS data are released to all users simultaneously in monthly online publications on the Social and Economic Situation of the Kyrgyz Republic and Key Economic Indicators on Industry. They are also disseminated among state authorities in a timely manner. In recent years, the publications have been developed to include more data on services, e.g. hotels and restaurants, transport,

communication, financial services, education, social services and other services for consumers.

Short-term statistics on average wages and salaries are also part of the monthly report on the Social and Economic Situation of the Kyrgyz Republic. Data are also published under Open Data tag of the official website of the NSC. Release on main indicators of development of tourism in the Kyrgyz Republic is posted quarterly on the website of the NSC.

**Challenges and future plans**

The statistical business register does not provide a fully comprehensive statistical framework for carrying out the quarterly sample survey of individual entrepreneurs.

The procedure of checking the quality of data is carried out by means of logical control of forms, as well as comparison and control of indicators between various forms. There are also instructions and brief methodological explanations of statistical forms. NSC has also worked to develop time series availability.

The NSC challenges with STS mainly relate to their dissemination, which is a key issue for STS, which aim at the provision of early signals to decision makers and society. The way in which STS are released and communicated is crucial for ensuring their full value for all users of statistics.

*Recommendations*

NSC is encouraged to:

82. Improve the content of statistical releases. In recent years, very brief textual description of statistical figures has been added to some statistical releases. This practice, however, remains insufficient and as such limits the use of official statistics and hampers their perceived value for society. Statistical releases should deliver key messages up front describing the main findings from data in order to also facilitate fast reception by users and media, which would contribute also to the visibility of the NSC. Key messages should be the focus of releases, not data tables.

83. Accompany each publication with a release date, for instance clearly mentioned next to the link to the statistical release. It might be worth dividing key STS to individual, separate domain releases to ensure that statistics are made available as soon as they are available. This also allows highlighting important developments in each domain, such as industry, construction, trade and services.

84. Develop a revision policy for all statistics, including STS. Currently, corrections or revisions to releases are not visible on the NSC website. Revisions to correct earlier releases should be clearly indicated, e.g., with an asterix and a footnote explaining the change, its source and date of correction. Business data accumulate and cannot be final by first release.

85. Improve access to time series data of all statistical releases. A link from the statistical release to the related section of the statistical database would be helpful. Seasonally adjusted time series should be made available, and these should be the focus of statistical releases. NSC has performed seasonal adjustment of industrial STS, and this practice should be regularised.

86. Review STS release practices by a desk study of other national statistical office's websites, assess these and introduce best practices into the NSC work. The NSC could contact UNECE for bilateral advisory support on statistical dissemination and communication.

# Chapter 17: Social and demographic statistics

## 17.1 Population Register

*Overview*

Kyrgyzstan does not have a comprehensive, unified population register. The current population register consists of many separate electronic databases that can be connected using unique identification numbers of the population. The State Registration Service under the Government of the Kyrgyz Republic, along with other line ministries, is in charge of implementing a system of interagency electronic data exchange, termed "Tunduk". Current plans call for the creation of a database on vital statistics based on information provided by the State Registration Service. The NSC plans to access this database through the Tunduk system.

A precondition for a functional population register, even a harmonised database on vital statistics, is that the register – and the database – is provided with and makes full use of unique identification numbers of the population. The same identification numbers should be introduced and used in all registers of persons in the Kyrgyz public administration system. Hence, the same identification numbers should be used in the population register, the register of vital events, in social security registers and records including registers on labour force and on employment and unemployment. This would allow the linking of records for statistical purposes, as is authorized in the new Law on Official Statistics, and greatly increase the possibilities for generating important demographic and social statistics.

*Recommendations*

87.  The NSC should encourage and support the development of a comprehensive national population register for enabling and facilitating the use of register data for the purposes of official statistics.

88.  A future population register as well as an interim database on vital events should be provided with and make full use of a system of identification numbers of persons. Such a system should be used in all registers of persons in the Kyrgyz public administration system.

## 17.2 Demographic statistics

*Overview*

The Department of Demographic Statistics at the NSC is responsible for the production and dissemination of demographic statistics. The decennial population censuses are the main source of demographic data together with annual population estimates produced on the basis of the civil registration system (under the State Registration Service). One of the potential sources of statistical data on the population will be the database on vital events that will be developed based on data from the State Registration Service.

The records of civil registration system are the primary documents of statistical records of demographic events on births, deaths, marriages and divorces. Medical death certificates serve as a basis for coding and compilation statistics on causes of death.

Production of population migration statistics is done in electronic format. The State Enterprise "Infocom", under the State Registration Service, is in charge of registration and maintenance of records on citizens of the Kyrgyz Republic, foreign citizens and stateless persons using the Automated Information Systems (AIS) for population registration. The electronic database with input data is sent monthly to the MCC, which is in charge of production of output tables.

Civil registration records are used to compile outputs on vital events; the electronic database on migration is used to compile outputs on population migration and based on both of these sources, NSC complies population estimates.

Data on the total population are compiled as of the beginning of the year disaggregated by urban and rural population, by sex, age and key ethnic groups.

### *Recommendations*

89. The NSC should work towards the application of digital technology for collecting and exchanging administrative data for demographic statistics between the relevant NSS institutions.

90. All administrative data on the population should include identification numbers of persons as recommended above.

## 17.3 Population and Housing Census

### *Overview*

The last population and housing census in Kyrgyzstan was carried out in 2009. A new population and housing census was scheduled to take place in late March 2020. Owing to the covid19 pandemic, this census was postponed and is now tentatively planned to be carried out in late 2021. The NSC carried out the population and housing census in 2009 and is responsible for the planning and execution of the 2021 census, including the enumeration, processing and dissemination of the census results.

In February 2019, the Kyrgyz authorities decided that the 2020 census should be carried out using digital equipment. The NSC decided to use a data collection software based on the mobile application "Survey Solutions" developed by the World Bank. In order to prepare the enumeration and test the data collection methods, pilot censuses were held in two Chui district and the city of Tokmok in March-April 2019, in Issyk-Kul district in ayil aimak (rural government) in July 2019, and in Osh city in November 2019. The experience of the pilots was assessed as successful, demonstrating that the mobile data collection was reliable, quality of data was improved, processing time was reduced, and data control and editing was largely automated.

The census enumeration will be carried out by door-to-door canvassing. Lists of addresses have been derived from the Address Register of the State Registration Service and GPS coordinates were derived from the Real Estate Register. This became the basis for lists of buildings and the creation of enumeration maps. The methodology and the set of concepts and definitions applied is based on the UN recommendations for population and housing censuses.

Apart from that, the census questionnaire will include model blocks of questions on labour migration of the member states of the EAEU and the CIS. There will also be a block of questions on disability in order to allow compilation of related SDG indicators. A final addition to the questionnaire is the inclusion of questions on the incidence and impact of the covid19 pandemic.

## 17.4 Labour Market Statistics

*Overview*

Regular labour market statistics are basically twofold. On the one hand, the NSC compiles statistics on the economically active population, employment, unemployment and underemployment based on a quarterly integrated household budget and labour force sample survey. The data is collected electronically using tablets. Up to 2019, the labour market concepts and definitions were based on ILO recommendations from 1985 but since 2019 the NSC applies the current ILO recommendation from 2013. On the other hand, the NSC collects monthly data on the number of employees and wages from enterprises, institutions and organizations that have the status of a legal entity. These submit electronic reports on the number of employees and wages to state statistics bodies at their location. The fact that sole proprietors do not submit tax reports undermines and limits the value of the labour statistics collected through the tax system.

After checking for completeness, the district statistical offices send their databases to the regional and city statistical bodies. After checking and supplementing the data, the regional statistical offices send the databases to the Main Computing Center (MCC) of the NSC. The labour force survey data is processed and released annually by the NSC whereas the employee and wage statistics are published each month. Currently, the NSC, the State Tax Service and the Social Fund of the Kyrgyz Republic are working on developing a combined reporting form for economic and social statistics held by these administrations.

The NSC and several other Kyrgyz authorities are currently engaged in compiling SDG indicators. So far, SDG indicators on informal employment have not been developed. The global assessors recommend that the NSC seeks technical assistance on the application of appropriate methodologies for such indicators.

*Recommendation*

91. The NSC should seek technical assistance on the application of appropriate methodologies for compiling SDG indicators relating to issues on labour force and employment.

## 17.5 Living Condition Statistics

*Overview*

Statistics on living conditions are mainly based on the quarterly household budget sample survey and on administrative data on pensions and social security contributions. The household budget survey is the main vehicle for collecting data on household income and expenditure, and living conditions, including household food consumption and their energy

value. Data on social protection is provided by the Social Fund and all ministries that are responsible for pension payments. The social protection information includes data on recipients of pensions and on pension payments, social support payments, disability and related issues.

Crime and judiciary statistics are based on administrative sources, i.e. reporting by the Ministry of Internal Affairs, the Judicial Department, the General Prosecutor's Office and the State Penitentiary Service. In addition, data on the activities of crisis centres, shelters, "aksakal" courts, and centres providing social and psychological assistance to the population are collected by the territorial statistics bodies.

The NSC and several other Kyrgyz authorities are currently engaged in compiling SDG indicators, including SDG living condition indicators. The global assessors recommend that the NSC seeks technical assistance on the application of appropriate methodologies for such indicators.

*Recommendation*

92. The NSC should seek technical assistance on the application of appropriate methodologies for compiling SDG indicators relating to living conditions.


## 17.6 Education Statistics

*Overview*

Education statistics cover public as well as private education at any level and in any subject. This includes education implemented by various organizations within the framework of the regular school system, vocational education, and adult education. Education statistics are classified according to ISCED 2011. The main data sources are regular reports submitted by the various organizations and schools at all levels of the school system as well as reports from district administrations and the Ministry of Education and Science. Statistics on the level of education are derived from the decennial population and housing censuses.

Statistical information on education is disseminated and presented to users in statistical publications, mass media, posting on the official website of the National Statistical Committee, and in a mobile application. Certain information is published on social networks, in accordance with concluded agreements.

Joint work by the NSC and the Ministry of Education and Science is underway to revise the statistical reporting forms and develop electronic reporting for all types of educational institutions. A part of this work is the creation of a database of educational institutions.

*Recommendation*

93. The NSC should encourage and support the development of a management information system at the Ministry of Education and Science for the collection and generation of data for the purposes of official statistics on education in Kyrgyzstan.

## 17.7 Health Statistics

*Overview*

Data for statistics on the health and morbidity of the population is collected by district and city statistical offices, channelled through regional offices and presented in a consolidated form to the MCC of the NSC (20 forms). The statistics are disaggregated by territory according to the system of the Ministry of Health and by medical institutions managed by other ministries and departments. Summary statistics on primary disability statistics are submitted to the NSC by the Main Directorate of Medical and Social Expertise under the Ministry of Social Protection (3 forms). Data on occupational injuries is collected by the regional statistical offices directly from enterprises and organizations and is subsequently processed by the MCC (1 form).

The NSC and the Ministry of Health cooperate closely on the collection and generation of health and disability statistics. The data exchange between these authorities, however, is currently hampered by incompatibilities of the software used by the NSC and the Ministry.

*Recommendation*

94. The NSC should give priority to reconciling the incompatibilities between the software used for exchanging data between the Ministry of Health and the NSC.

# Chapter 18: Agricultural Statistics

*Overview*

Agricultural statistics comprise agricultural prices, economic accounts for agriculture, crop production, animal production, and farm structure.

Kyrgyzstan conducted an agricultural census in two stages in 2002 and 2003. Due to lack of resources, no agricultural census was conducted during the 2010 round of censuses. Plans for holding such a census in 2018 were also abandoned for the same reason. Currently, there are plans for conducting an agricultural census in 2024 based both on register and administrative information and field surveys.

The total of agricultural units is currently divided into three main categories; state and collective farms counting 600 units, peasant farms and individual entrepreneurs engaged in agricultural production counting over 400,000 units, and private subsidiary farms of the population of more than 840,000 units. Information from the activities of state and collective farms is submitted directly by these farms on standardised forms to the district statistical offices. Data on the agricultural area and production of peasant and entrepreneurial farms is collected through a full coverage survey. Information about the activities of private subsidiary farms of the population is collected by sample surveys. Moreover, there are two ad hoc surveys each year, for cattle and poultry in December and sown area of crops for the current year in May.

The MCC maintains a register of farms containing peasant (farm) households and farms of individual entrepreneurs engaged in agricultural production. The register is updated through the regular surveys mentioned above.

*Recommendation*

95. The NSC should seek technical assistance on the application of appropriate methodologies for compiling SDG indicators relating to agriculture.

# Chapter 19: Multi-domain Statistics

## 19.1 Transport Statistics

*Overview*

The NSC produces a range of monthly, quarterly and annual statistics on different aspects of transport, in line with international standards. These statistics are based on mandatory reporting forms from all relevant enterprises, a sample survey of individual entrepreneurs, and administrative data on permits ("patents") issued by the tax agency. It may be necessary in the future to consider sampling of enterprises, rather than full coverage, to reduce costs and response burden. This would require the construction of a suitable sampling frame, probably based on the statistical business register.

The statistics produced cover the following areas, with different indicators for transport of passengers and goods where appropriate:

- Road transport, including trolleybuses
- Air transport
- Rail transport
- Inland water transport
- Transport via pipelines

Transport statistics are produced according to well-established methodological guidelines dating from 2001. Whilst this helps to ensure consistent time series data, there is a risk that the methodology might need updating to reflect developments in the transport sector during this period.

The main areas identified by the NSC for the future development of transport statistics include the greater use of administrative sources to reduce response burdens and greater use of electronic reporting to improve efficiency.

*Recommendations*

96. The NSC should review the methodological guidelines for transport statistics, to see if they need updating based on international standards.

97. The NSC should continue with plans to move to e-reporting, and to make greater use of administrative data to reduce response burden.

98. The NSC should consider whether the statistical business register, in combination with administrative sources, could provide a possible future sampling frame for transport statistics on enterprises and individual entrepreneurs.


## 19.2 Tourism Statistics

*Overview*

The NSC is responsible for compiling and publishing tourism statistics in Kyrgyzstan. Statistics are produced on a quarterly and annual basis, and the main publication is the annual handbook on "Tourism in Kyrgyzstan".

Data are collected via:

- Mandatory, full-coverage enterprise reporting forms
- Sample surveys of households providing tourism services, with a particular focus on the Issyk-Kul region, which is the main tourist destination in Kyrgyzstan
- Administrative data in the form of a quarterly report from the State Border Service on arrivals and departures at border crossing points

There are various methodological challenges, including separating out border crossings for day trips, e.g. for shopping purposes, from genuine tourism activities. The methodology of the United Nations World Tourism Organisation is generally applied, but the NSC recognises that further improvements are needed to the methodologies and definitions used. Developing methods to calculate the volume of tourism services and preparing satellite accounts for tourism statistics are areas identified by the NSC for future development work.

The coverage of households and private entrepreneurs in tourism statistics is a challenge for the NSC. The development of a satellite register on tourism, linked to the main statistical business register, could help in this respect.

In addition to methodological improvements, the main areas identified by the NSC for the future development of tourism statistics include the greater use of administrative sources to reduce response burdens and greater use of electronic reporting to improve efficiency.

### *Recommendations*

99. The NSC should continue with plans to improve the coverage of tourism statistics, particularly for the activities of individual entrepreneurs. This could include the creation of a satellite register for tourism linked to the statistical business register.

100. The NSC should develop and implement better definitions and methodologies for tourism statistics in cooperation with users and based on international standards, and strengthen cooperation with external holders of relevant data, including neighbouring countries.


## 19.3 Energy Statistics

### *Overview*

The NSC produces a range of energy statistics which are published on their web site and included in monthly and annual publications, including the annual "Fuel and Energy Balance" report. The main data source is information on production and consumption of energy collected in various reporting forms which are mandatory for all registered enterprises. Monthly data on the import and export of energy are provided by the customs authority.

The methodology used by the NSC to produce energy statistics seems to be in line with international standards, such as the Energy Statistics Manual of the International Energy Agency and the United Nations Statistical Division's International Recommendations for Energy Statistics. The fuel and energy balance is calculated based on ten types of energy products.

The NSC plans to:

- Review the reporting forms and indicators, with the aim of being able to produce data for SDG indicator 7.2.1 on the proportion of renewable energy sources in total energy consumption.
- Move towards electronic data collection where possible, to reduce the burden on respondents.
- Review methodology, and make improvements where necessary, to ensure continued alignment with international standards, particularly regarding the compilation of fuel and energy balances.

*Recommendation*

101. The NSC should continue with plans to improve energy statistics, including reviewing forms to take into account SDG data requirements, and developing statistics on energy efficiency.

## 19.4 Environment Statistics

*Overview*

The NSC produces statistics on various environment-related topics, in collaboration with the State Agency on Environment Protection and Forestry. Six priority areas for environment statistics in Kyrgyzstan are air pollution, water resources, biodiversity, land resources, waste and expenditure on environmental protection.

The NSC collects data directly from enterprises through mandatory, full coverage reporting forms, and also administrative data from various state bodies. These data sources are still mostly paper-based, though some administrative data are now available electronically as spreadsheet files.

Data are disseminated through the NSC web site and various publications, including an annual compendium of environment statistics. The NSC and the State Agency on Environment Protection and Forestry are jointly developing the "KEREGE" information management system for environmental information. This system will be based on the UNECE's Shared Environmental Information Systems (SEIS) indicators, and aims to provide the basis for collecting, reviewing and synthesizing available environmental data and information.

The NSC is gradually introducing the System of Environmental-Economic Accounts (SEEA). Work so far has focused on forest and energy accounts, and a pilot exercise to compile land accounts has been conducted.

Statistics on climate change is also a priority area for the NSC, particularly in the context of the SDGs. Kyrgyzstan is a pilot country for the implementation of the UNECE climate change indicators.

102. The NSC should continue to implement forest accounts, land accounts, energy accounts, and others, in line with the requirements of the System of Environmental-Economic Accounting.

103. The NSC should continue to develop and implement indicators on climate change, in line with international standards.

104. The NSC should improve communication and coordination with other producers of environment statistics, particularly administrative data sources, to improve the environment statistics.


## 19.5 Research and Development and Innovation Statistics

*Overview*

Research and development statistics as well as statistics on innovation are produced within the NSC under the heading "Science Statistics" on an annual basis.

Enterprises and other institutions engaged in R&D and innovation activities report annually to the regional statistical offices that provide the data to the Main Computing Centre (MCC) which processes all such data and delivers output tables in form of excel files to the respective department in the NSC. The Social Statistics Department in the NSC produces a number of key indicators on scientific and technical work, including conducted scientific research and development as well as scientific and technical services.

The specialists of the national accounts and economic statistics department did recently an experimental calculation of R&D spending as a share of GDP based on the 2008 SNA methodology, based on gross research and development costs reported by enterprises and other institutions. The gross costs were broken down by type of economic activity (ISIC, 4th edition) and by type of R&D expenditure (natural, technical, agricultural, medical, etc.).

R&D expenditure data by source of funding is used in the system of national accounts to separate the elements of gross output into market sales and GFCF at own expense for market and non-market producers, such as ISIC 72 and ISIC 85.


## 19.6 ICT Statistics

*Overview*

The NSC publishes an analytical review together with the results of the statistical monitoring of the implementation of modern information technologies at enterprises and organizations of the republic on an annual basis. Data are provided on the number of ICT tools (personal computers, local area networks, electronic mailboxes, internet access points), the number of employees using such tools, as well as other figures.

However, the NSC does currently not produce internationally comparable ICT statistics by means of standardized questionnaires for enterprises and households. Instead, some indicators

on postal and communication services are provided in the above-mentioned publication, such as:

- Income from postal and courier services
- Income from communication services
- Main indicators of postal services
- Main indicators of telephone services
- Main indicators of development of mobile cellular communications

Internationally comparable information on topics like mobile internet access, social media use, e-commerce, internet security, cloud services, digital skills and employment of ICT specialists are missing.

The NSC is invited to take note of the Eurostat Model Questionnaires for enterprises: (https://ec.europa.eu/eurostat/cache/metadata/EN/isoc_e_esms.htm);
and households / people:
(https://ec.europa.eu/eurostat/cache/metadata/en/isoc_i_esms.htm)


### *Recommendation*

105. The NSC should consider the production of dedicated statistics on Information and Communication Technologies (ICT), which should be provided separately for households/people and businesses/enterprises.


## 19.7 Gender Statistics

### *Overview*

This sub-chapter is not a standard element of global assessment reports, but has been added at the request of the NSC.

Gender statistics have been developed over at least 25 years in Kyrgyzstan. They are currently under the responsibility of the Department of Social Statistics within the NSC, but are produced in collaboration with other sectoral units. Data are taken from various sources, including statistical and administrative reports, population censuses and special surveys and analyses of specific topics. Gender statistics are seen as essential for supporting national strategies on gender equality.

As well as the main annual publication "Women and men in the Kyrgyz Republic", gender statistics are included in various other sectoral and special publications, as well as via the NSC web site.

The development of gender statistics in Kyrgyzstan has been supported by various UN and other international agencies, though it was noted that this sometimes brings restrictions, as it has been easier to obtain funding to produce data on women and children than it has been for data on men.

Challenges include limited resources and high staff turnover, as well as limited possibilities to obtain additional data. NSC staff described problems related to adding gender-related questions to existing surveys, due to their sensitive nature having an adverse impact on response rates. There is a clear preference in the NSC for separate surveys to collect gender data where possible. However, the assessment team considers that new surveys should be used as a last resort after other options such as administrative and other data sources that involve less response burden are considered.

Statistics for the Sustainable Development Goals often include a gender break-down. This has helped to focus attention on gender statistics, but it should be noted that gender statistics are much wider, covering many more indicators.

### *Recommendations*

106. The NSC should continue the good progress so far in developing gender statistics, taking care to assess all potential data sources, and keep any additional response burden to the minimum.

107. The NSC should ensure that gender statistics are not seen as a subset of statistics on the Sustainable Development Goals and should continue to develop a wide range of gender statistics, ideally in a distinct organisational unit.