Pursuant to the provisions of Article 10 of the Law on Official Statistics („Official Gazette of RS“, number 109/25), the acting director of the Statistical Office of the Republic of Serbia, based on the proposition of the National Coordination Committee of Official Statistics, is adopting

CODE OF PRACTICE OF THE OFFICIAL STATISTICS OF THE REPUBLIC OF SERBIA

The purpose of the System of Official Statistics is the continuous, professionally independent and transparent production and dissemination of quality, relevant and reliable results along with the strengthening of public trust and the alignment with the UN official statistics principles, Law on Official Statistics (hereinafter: the Law), and European Statistics Code of Practice.

The Code of Practice of the Official Statistics of the Republic of Serbia (hereinafter: the Code of Practice) is based on the European Statistics Code of Practice (hereinafter: European Code), the latter being the cornerstone for establishing a unique quality framework for the European Statistical System.

The main objective of the Code of Practice is to establish a common framework of standards and guidelines for developing, producing and disseminating official statistics, as well as to continuously improving their quality. The standardisation is aimed at providing a high-quality System of Official Statistics and the comparability of official statistics results on national and European levels.

The Code of Practice is divided into 16 principles, developed through corresponding indicators and grouped in three major areas: the institutional environment, statistical processes and statistical outputs.

Each principle begins with a short description, followed by the indicators representing the measures for assessing their practical use. The indicators are clearly and specifically defined requirements and obligations that responsible official statistics producers are to meet for providing harmonisation with the principles of the European Code in producing and disseminating official statistics results being in their field of institutional competence.

The System of Official Statistics is based also on the principles of managing data, integrating several data sources and on ethical data use according to modern international standards.

I. INSTITUTIONAL ENVIRONMENT

Institutional and organisational factors have a significant influence on the effectiveness, integrity and credibility of a statistical authority developing, producing and disseminating official statistics. In this area, the following principles are defined: professional independence, coordination and cooperation, mandate for data collection, adequacy of resources, quality commitment, statistical confidentiality as well as impartiality and objectivity.

1. PRINCIPLE OF PROFESSIONAL INDEPENDENCE implies that responsible official statistics producers perform their activities independently, including operational independence in practice without direct or indirect political or other external influence.

INDICATORS:

1.1. The independence of the national statistical institute from political and other external interference in developing, producing and disseminating official statistics is regulated by law and assured also for other responsible official statistics producers.

1.2. The head of the national statistical institute has a hierarchical standing to ensure access to policy and administrative public bodies. She/he has adequate professional competence.

1.3. The head of the statistical institute has responsibility for ensuring that statistics are developed, produced and disseminated independently.

1.4. The head of the national statistical institute have the sole responsibility for deciding on statistical methods, standards and procedures, an on the content and timing of statistical releases.

1.5. The statistical work programme/plan is published and reports on its implementation are periodically provided.

1.6. Statistical releases are clearly distinguished and issued separately from political reports and statements.

1.7. The Statistical Office of the Republic of Serbia and other responsible official statistics producers have established procedures for responding in cases when professional independence, including critics and misuse of official statistics are compromised.

1.8. The heads of statistical institutes are appointed in a transparent manner and solely based on professional competence. The reasons on which the mandate of the heads of statistical institutes can be terminated are legally regulated and cannot be connected to reasons that could compromise the professional and scientific independence of the statistical institute.

1bis. PRINCIPLE OF COORDINATION AND COOPERATION implies that the Statistical Office of the Republic of Serbia is the main coordinator of all activities for developing, producing and disseminating official statistics, and that responsible official statistics producers cooperate actively so as to ensure the development, production and dissemination of official statistics.

INDICATORS:

1bis. 1. The Statistical Office of the Republic of Serbia coordinates the statistical activities of other responsible official statistics producers. Legal frameworks and clearly defined procedures are established for implementing the coordination role.

1bis. 2. When necessary, the head of the Statistical Office of the Republic of Serbia produces national guidelines ensuring quality in the development, production and dissemination of official statistics. Their implementation is monitored and reviewed.

1bis. 3. Responsible official statistics producers continuously maintain and develop cooperation with each other, as well as the cooperation with academic institutions and internationalbodies.

1bis. 4. The Statistical Office of the Republic of Serbia monitors the compliance of other official statistics producers with the principles of official statistics and quality standards, provides professional and methodological recommendations for improving compliance and monitors their implementation.

2. PRINCIPLE OF MANDATE FOR DATA COLLECTION implies that responsible official statistics producers have mandate, within their competences, to collect data from multiple sources for official statistics purposes.

INDICATORS:

2.1. The mandate to collect data from multiple sources for the development, production and dissemination of official statistics is specified in law.

2.2. Responsible producers are allowed by the Law to access administrative and other data sources free of charge, respecting the principles of data minimization, –suitability for the purpose and data protection. They are involved from the beginning in the design, development and discontinuation of administrative and other data sources, in order to make them more suitable for statistical purposes.

2.3. On the basis of the Law, a responsible official statistics producer may require the provision of data for the purposes of conducting a statistical survey.

2.4. The Statistical Office of the Republic of Serbia may collect data that are not covered by the official statistics programme and plan solely for statistical, research and development purposes, provided that the purpose of collection is clearly specified. Those activities are carried out by fully respecting the principle of professional independence, ensuring that no external body can influence the selection of data sources, methodology, processing, analysis and dissemination of results. The scope and duration of data collection have to be proportionate to the purpose, time limited and aligned with the principles of and data minimisation and data protection. In case that the activities are conducted at the initiative of other bodies, the initiative must not influence other statistical standards, methodological solutions or the content and time of release of results.

3. PRINCIPLE OF ADEQUACY OF RESOURCES implies that adequate resources - financial, personnel and infrastructure - must be available for responsible official statistical producers to conduct smoothly the activities of official statistics and to meet international requirements.

INDICATORS:

3.1. Human, financial and technical resources, adequate in magnitude and quality, are available for meeting official statistics needs.

3.2. The scope, detail and costs of official statistics are commensurate with specified needs.

3.3. Procedures exist to assess and justify demands for new statistics against their cost, taking into consideration user priorities and available resources.

3.4. Procedures exist to assess the continuity of existing statistics to see if their production can be discontinued or curtailed to free up resources for priority activities.

4. PRINCIPLE OF COMMITMENT TO QUALITY implies that responsible official statistics producers are committed to continuous quality improvement of statistical processes and outputs.

INDICATORS:

4.1. Quality policy is defined and made available to the public. Adequate organisational structure and tools exist to deal with quality management.

4.2. Procedures are in place to plan, monitor and improve the quality of the processes of statistical production, including the integration of data from multiple sources.

4.3. Output quality is regularly monitored and assessed with regard to various combinations of their dimensions, and results are reported according to the quality criteria of the European statistics, including the monitoring of user satisfaction as one of the components of quality assessment of statistical outputs.

4.4. The quality of key statistical outputs is regularly reviewed, and when necessary external experts are used, when possible.

5. PRINCIPLE OF STATISTICAL CONFIDENTIALITY AND DATA PROTECTION implies that the privacy of data providers, confidentiality of transmitted data, use of data solely for statistical purposes and the security of data must be completely guaranteed.

INDICATORS:

5.1. Statistical confidentiality is guaranteed in law.

5.2. The employees in responsible official statistics producers sign a commitment that they will respect the legal obligation to protect statistical confidentiality on their work appointment.

5.3. Penalties are prescribed for any wilful breach of the regulation on statistical confidentiality.

5.4. Guidelines and instructions are provided to employees on the protection of statistical confidentiality in statistical processes. The confidentiality policy is made known to the public.

5.5. The necessary regulatory, administrative, technical and organisational measures are in place to protect the security and integrity of statistical data and their transmission.

5.6. Clearly defined protocols are in place to allow external user the access to statistical microdata for research purposes, based on predetermined criteria, procedures and conditions for access.

6. PRINCIPLE OF IMPARTIALITY AND OBJECTIVITY implies that responsible official statistics producers develop, produce and disseminate official statistics in an objective, professional, impartial and transparent manner respecting the scientific independence so that all users are treated equitably.

INDICATORS:

6.1. Statistics are compiled on an objective basis determined by statistical criteria.

6.2. The selection of data sources and statistical methods, as well as decision-making about the dissemination of statistics are based on statistical criteria.

6.3. Errors discovered in published statistics are corrected and published as soon as possible.

6.4. Information on data sources, methods and procedures used by responsible official statistics producers are publicly available.

6.5. Statistical release dates and times are pre-announced.

6.6. The public is given advance information on major revisions or changes in methodologies.

6.7. Responsible official statistics producers decide on the time and content of statistical releases, taking into account the goal of providing complete and timely statistical information. All users have equal access to statistical releases at the same time. Any privileged pre-release access to any outside user is limited, adequately justified, controlled and publicised. In case of breach of this provision, pre-release cases are reviewed so to ensure impartiality.

6.8. Statistical publications, releases and statements at media conferences are objective and impartial.

II. STATISTICAL PROCESSES

European and other international standards, guidelines and examples of good practices are fully observed in statistical processes used by responsible official statistics producers to develop, produce and disseminate official statistics. The principles defined in this area are: sound methodology, appropriate statistical procedures, non-excessive burden on respondents and cost effectiveness.

7. PRINCIPLE OF SOUND METHODOLOGY implies that responsible official statistics producers commit to develop and implement adequate methodologies to produce high-quality official statistics results, which are based on internationally recognised statistical standards, adequate tools, procedures and expertise.

INDICATORS:

7.1. The overall methodological framework used for official statistics follows European and other international standards, guidelines and good practices, while constantly striving for innovation.

7.2. Procedures are in place to ensure that standard concepts, definitions, classifications and other statistical standards are consistently applied throughout the overall official statistics system.

7.3. Registers and frames for sample selection, used for official statistics, are regularly evaluated and adjusted and improved as far as it is necessary to ensure high-quality statistical processes.

7.4. National statistical classifications are harmonised with corresponding European classifications.

7.5. Experts from relevant academic disciplines are engaged for developing and improving statistical methodologies.

7.6. Responsible official statistics producers implement the policy of continuous vocational training of employees.

7.7. Responsible official statistics producers maintain and develop cooperation with scientific and academic communities, including universities, research institutes and other relevant research organisations in view of improving methodologies and using modern tools and methods.

7.8. Methods for using alternative data sources (e.g. administrative sources, big data, privately-owned sources) are developed and implemented in line with statistical standards, while evaluating the quality and ethics of data use.

7.9. When AI or ML methods are used in statistical production, the methodological framework covers a clearly specified purpose of use, data sources and quality for training, pre-processing procedures, model selection, validation method, limitations in using and the conditions under which results may be used in official statistics.

7.10. Documentation allowing reproducibility and confidentiality of results, including data versions, model versions, parameters, applied classifications, used metadata and decisions on algorithm selection is provided for AI/ML methods.

7.11. The use of AI/ML methods does not replace statistical methodology and expert responsibility but represents an accessory tool in the scope of a clearly defined methodological process, with a mandatory possibility of human checks, especially in cases of low reliability, inconclusive results or methodologically sensitive classifications.

8. PRINCIPLE OF APPROPRIATE STATISTICAL PROCEDURES implies that appropriate statistical procedures implemented throughout statistical processes are the basis for producing quality official statistics results.

INDICATORS:

8.1. When official statistics are based on administrative and other data sources, the concepts, definitions and classifications used for non-statistical purposes are aligned with statistical requests.

8.2. Tools for data collection (questionnaires, electronic forms) are systematically tested prior to data collection.

8.3. Statistical processes are regularly monitored and improved and revised when necessary.

8.4. Metadata related to statistical processes are managed throughout overall statistical processes and disseminated, as appropriate.

8.5. Revisions are made according to pre-determined, standardised and transparent procedures and publicly available revision policy.

8.6. Agreements are made with holders of administrative and other data, based on which is defined their shared commitment to the use of all data for statistical purposes, unless that that cooperation and commitment are specified in special regulations.

8.7. Responsible official statistics producers cooperate with the holders of administrative and other data sources to improve the quality of data used for producing official statistics.

8.8. Procedures for monitoring, validating and controlling results quality, including accuracy evaluation, model stability over time, possible bias and influence on final statistical results are established when AI/ML-based algorithms are used.

8.9. Thresholds of result acceptability, procedures for manual checks or expert revisions, as well as rules for dealing with insufficient reliability, non-alignment with classifications or unexpected output values are defined for AI/ML processes.

8.10. In the procedures using generative artificial intelligence results are based solely on checked official sources, metadata and controlled accesses to data. The system must not generate statistical values, identifiers, links or interpretations not being based on verified sources.

8.11. Technical and methodological records, allowing subsequent check of procedure, including records of input data, model versions, validation rules, used thresholds, experts' intervention and quality control of results, are kept for AI/ML systems.

9. PRINCIPLE OF NON-EXCESSIVE BURDEN ON RESPONDENTS implies that the burden on respondents is proportionate to the needs of the users of official statistics and is not excessive for respondents. Responsible official statistics producers monitor the response burden and set activities to reduce it gradually.

INDICATORS:

9.1. The demands related to the range of detail and frequency of data collection are limited to what is absolutely necessary.

9.2. The response burden is spread as wildly as possible over the whole survey population and monitored by responsible official statistics producers.

9.3. Information collected from business subjects are, as far as possible, based on the data that are easily accessible in accounting and other records of business subjects.

9.4. Administrative and other data sources are used whenever it is possible to avoid duplicating requests for data and to reduce response burden.

9.5. Data linking and integration of different sources, while respecting statistical confidentiality and data protection, are widely applied to minimise response burden.

9.6. Responsible official statistics promote measures that enable the linking of data and use of several data source as well as the use of modern technologies and data collection methods to minimise response burden.

10. PRINCIPLE OF COST EFFECTIVENESS implies that resources for producing official statistics are used effectively, cost-effectively and purposefully.

INDICATORS:

10.1. Mechanisms for regular internal and independent external monitoring of the use of resources of responsible official statistics producers are in place.

10.2. The productivity potential of information and communication technologies is optimised to maximise the effectiveness of statistical processes.

10.3. Active efforts are made to improve the statistical potential of administrative and other data sources and thus restrict recourse to direct data collection and to rationalise the costs of statistical production.

10.4. Responsible official statistics producers share and implement standardised, organisational and technical solutions to increase the cost-effectiveness, effectiveness and efficiency of the statistical process.

III. STATISTICAL OUTPUT

Statistics available to users meet their needs. Statistics are harmonised with European quality standards and serve the needs of public policy holders, research institutions, business subjects and the public. The quality of statistical outputs is measured by the extent to which they are relevant, accurate and reliable, timely, coherent, comparable across regions and countries, as well as available and understandable for users. The principles specified in this area are: relevance, accuracy and reliability, timeliness and punctuality, coherence and comparability, accessibility and clarity.

11. PRINCIPLE OF RELEVANCE implies that official statistics meet the needs of users.

INDICATORS:

11.1. Procedures are in place to consult users, monitor relevance and practical usefulness of existing statistics to meet the needs of users and identify their emerging needs and priorities. Innovation is pursued to continuously improve statistical outputs.
11.2. The needs of users are ranked by priorities and are reflected in the statistical programme.
11.3. The results of consultations with users are used in planning and improving statistical activities.
11.4. User satisfaction is regularly monitored and is systematically followed up through adequate activities.

12. PRINCIPLE OF ACCURACY AND RELIABILITY implies that official statistics show accurately and reliably reality.

INDICATORS:

12.1. Source data, integrated data, preliminary results and statistical outputs are regularly assessed and validated.

12.2. Sampling and non-sampling errors are measured and systematically documented according to European standards.

12.3. Revisions, i.e. changes in data are regularly analysed to improve source data, statistical processes and outputs.

13. PRINCIPLE OF TIMELINESS AND PUNCTUALITY implies that official statistics results are released in a timely and punctual manner.

INDICATORS:

13.1. Timeliness meets the highest European and international release standards.

13.2. The standard daily time for the release of statistical data is made public.

13.3. The periodicity of statistics release is, as much as possible, aligned with user needs.

13.4. Any divergence from the dissemination time schedule is publicised in advance, while explaining the reasons and stating the new release date.

13.5. Preliminary results of acceptable accuracy and reliability may be released when deemed useful.

14. PRINCIPLE OF COHERENCE AND COMPARABILITY implies that official statistics must be consistent internally and over time, as well as regionally and internationally comparable. Related data from different sources may be combined and shared.

INDICATORS:

14.1. Statistics are internally coherent and consistent (e.g. arithmetic and accounting congruences are taken into account).

14.2. Statistics are comparable in a reasonable period of time.

14.3. Statistics are compiled on the basis of common standards with respect to scope, definitions, units and classification in different surveys and data sources.

14.4. Statistics from different data sources and different periodicity are compared and reconciled.

14.5. Cross-national data comparability is ensured in the scope of the European Statistical System through periodical exchange between the European Statistical System and other statistical systems.

15. PRINCIPAL OF ACCESSIBIILTY AND CLARITY implies that official statistics results are presented in a clear and understandable form, released in a convenient and suitable manner, available and accessible on an impartial basis with supporting metadata and guidelines.

INDICATORS:

15.1. Statistics and the corresponding metadata are presented and archived in a form that facilitates proper interpretation and meaningful comparisons.

15.2. For data dissemination used are modern information and communication technologies, including standard open data and machine-readable formats, as well as corresponding methods and platforms for data release and exchange.

15.3. When disseminating statistical data one takes into account different levels of user literacy, through adapted manner of presenting and explaining statistical results.

15.4. Custom-designed analyses are provided when feasible and made known to the public according to available resources and rules on statistical confidentiality.

15.5. Access to microdata is allowed for research purposes based on special rules and protocols.

15.6. Metadata related to statistical outputs are managed and disseminated according to European standards.

15.7. Users are informed about methodology of statistical processes, including the integration of administration and other data.

15.8. Users are informed about the quality of statistical outputs according to European statistics quality criteria.

15.9. When AI tools are used to improve access to statistical data, especially through natural language search or chatbot it is ensured that responses are based on official metadata, period of time, territory and other relevant dimensions.

15.10. In AI systems one uses mechanisms for managing multilingualism, alphabets, synonyms and user terminology to minimise the risk of improper interpretation of data and of to allow larger access to official statistics for a wider circle of users.