

Strategic directions in the work of statistical offices and geospatial agencies

Item 2 of joint plenary session of CES and UN-GGIM: Europe



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Growing need for integrated data



- The 2030 Agenda for Sustainable Development
- requires integrated geospatial and statistical data
- to monitor progress and make informed decisions
- but there is a shortage of capacity for this type of data integration

Benefits of data integration



- Improved data quality and accessibility
 - consistent access to information covering various aspects, including geographical, social, economic, and environmental
- Enhanced efficiency and cost savings
 - data integration can reduce duplication of effort and resources by promoting data sharing and reuse
- Improved data analysis and policy decisions
 - data analysis is enhanced by the ability to combine different data layers
 - this leads to better insights for decision-making and developing policies that are locally, regionally, and globally relevant

Key organizations promoting data integration



- Global level
 - the United Nations Statistics Division
 - the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM)
- European level
 - UNECE
 - Eurostat
 - UN-GGIM: Europe
 - European Forum for Geography and Statistics

Obstacles to data integration



- Financial
 - a lack of funding is a major obstacle to data integration, especially in Eastern Europe, the Caucasus, and Central Asia
- Communication and engagement
 - there is a need for improved communication and engagement strategies to promote data integration and build awareness about its benefits
- Data and technical
 - challenges include data interoperability issues, inconsistent data formats, and a lack of unique identifiers

Strategic directions of CES work



A. Cross-cutting areas

B. Individual statistical subject-matter domains

A. Cross-cutting areas (1)



- Principles, values and ethics,
- The role of official statistics in the new digital world,
- Timely data with sufficient granularity,
- Foresight,
- Innovation and modernization,
- AI and large language models,
- New data sources,
- Partnership with academia and the researches,

A. Cross-cutting areas (2)



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- Data linking and integration,
- Georeferencing of statistical data,
- Trust,
- Communication,
- Legislation,
- SDGs,
- Capacity development,
- Resources,
- Human resources.

Principles, values and ethics



- The core aim of determining principles and values for official statistics is to ensure that
 - statistics published by countries are reliable and trustworthy
 - statistics are produced by internationally agreed methods, standards, and ethics
- Agreed principles and values are universal despite many differences among countries in their statistical production and gathering of data
- Data ethics is getting a new meaning and importance due to
 - the use of new data sources
 - the changing role of national statistical offices (NSOs)
- Communicating statistics as a public good based on high ethical standards is crucial to maintaining trust and social acceptability of official statistics
- Call for developing a broad framework covering the data ethics issues that NSOs must consider

The role of official statistics in the new digital world



- No longer the monopoly for data
- The transition from data providers to data stewards
- The role in a digital ecosystem
- Providing services instead of (just) data
- Providing valuable insights and governance support for data management

Timely data with sufficient granularity



- The need for agility in data production without compromising quality.
- The ability to produce timely and granular data is critical, especially in a competitive data environment
- The place for both
 - core statistics where quality cannot be compromised
 - more experimental statistics where the results can be ‘good enough’ and still give valuable insights

Key questions:

- What should be measured in the face of new global trends and challenges?
- How to provide an indispensable element in the information system of a democratic society?

Innovation and modernization



Exploration of new areas:

- artificial intelligence (AI)
- data science
- data governance
- open source
- cloud computing

A corporate-wide issues:

- leadership
- strategy
- clear communication to staff
- cultural change
- new working practices

Strategic priority is to continue efforts and to identify new opportunities to innovate and modernize official statistics work

New data sources



- Using data from multiple and diverse sources to increase the productivity of official statistics
- Access to data is a key, including new types of private data sources
- Access to and use of administrative data are important in the context of the development of register-based censuses across the UNECE region
- Using mixed data sources requires changing official statistics methodologies, models, and standards

Data linking and integration



- The integration of diverse data sources, including administrative and private data
- Developing methodologies and standards for mixed data sources will enhance official statistics' relevance
- Driving the demand for NSIs to provide statistical insights across multiple domains
- Benefits of data linkage
 - can mitigate challenges related to declining response rates, missing data and data quality
 - create opportunity-driven solutions to improve the efficiency of national statistical systems (NSSs) by reducing survey costs, response burden, and data redundancy in NSSs'
 - are a cost-effective means for generating data that is more frequent and responsive, disaggregated at subpopulation and geographic levels'
 - have the capacity to detect multidimensional social and economic phenomena that are invisible in single data sources

Georeferencing of statistical data



- Strengthening partnerships with the geospatial community to improve statistical and geospatial data integration
- Statistical and geospatial communities should work together to identify common areas to collect data only once
- Identification of opportunities regarding new data sources
- Development of new types of geostatistical outputs
- Georeferenced data and statistics are essential to monitoring and analyzing some SDGs and are helpful for decision-makers

Public trust and communication



- Maintaining public trust is a challenge in an age of accessing, linking, and integrating data from different sources (including from private data holders)
- Raise awareness to the public that statistical offices act in the public interest and an ethical manner
- As a result, it may increase response rates and overcome difficulties in reaching respondents
- Engaging citizens and effective communication is crucial to enhance social participation in the national statistical system

Sustainable Development Goals



- Data needs to be investigated to assess progress
- Requirement of many NSOs to step up their activities in coordinating national data in line with their evolving data stewardship role
- CES supports countries in their endeavors through its Roadmap on Statistics for SDGs, supporting tools, regular expert meetings, and workshops
- Time to collect lessons learned from different dimensions of the SDG process: global, regional, national, and local
- Identification of SDG data gaps that statisticians can fill and focus on the ones that matter the most during the remaining years until 2030

Capacity development and sharing of good practices



- The importance of:
 - communication
 - exchange of ideas and experiences
- to cope with the pressure on NSIs to develop in new directions
- Sharing ideas and solutions to common problems is much more efficient than tackling these problems individually by each country

B. Statistical subject-matter domains



- Environment and climate change
- Economy
- Population and society

Environment and climate change



- One of the fastest growing areas of official statistics, driven by the many indicators required to measure and monitor progress towards the SDGs
- Many indicators from various fields require close cooperation, knowledge sharing, and improved data availability from various institutions and sources, including geospatial sources
- Critically important is improving the availability of granular, localized, and geospatially enabled statistical data needs, e.g., through georeferencing all available micro and aggregated data for territorial analysis



- A significant development in official statisticians in the coming years will be the implementation of the new version of the System of National Accounts (SNA)
- SNA will increase the analytical usefulness of the accounts to meet different policy needs
- SNA implementation will require significant efforts and resources from countries.
- International cooperation will be essential to support countries in this process and maintain the quality of their national accounts and international comparability

Population and society



- Population data is one of the cornerstones of official statistics
- The 2030 Census round is likely to see an unprecedented use of administrative registers, combined censuses, and moves towards online data collection and continuous integrated data systems to produce more frequent census estimates
- The growing importance of geospatial data in the context of the need to further development of migration statistics
- Influence of population data used for sampling frames on the quality of social statistics
- Need for continuation of work on topics related to social inclusion, including subjective and multidimensional poverty measurement and identifying hard-to-reach groups

Recommendations for improvement



- Secure funding
 - sustainable funding models are needed to support data integration initiatives
- Improve communication
 - communication strategies should be enhanced to increase awareness about the advantages of data integration
- Promote data standardization
 - Harmonized standards, operating models, and production processes are crucial for promoting data standardization and interoperability

Discussion



- The CES program of work and lists of the issues identified for future discussions
- The strategic directions in the work of the geospatial agencies and identify areas where the two converge
- Identification of common areas where the statistical and geospatial communities can work together in the coming years

Thank you!

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