UN-GGIM: Academic Network Forum

The Sustainable Development Goals

Major drivers, opportunities and challenges:
A global UN-GGIM perspective

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Positioning geospatial information to address global challenges

Implementing Nationally Integrated Information Systems

Global Data Ecosystem

Digital Evolution

Digital Technologies & Transformation

Standards, Governance, Policy

Land Admin. & Management

Smart Cities

Citizens

Land Tenure

Digital Poor

Global Data Ecosystem

Digital Rich

UN-GGIM
United Nations Secretariat
Global Geospatial Information Management

ggim.un.org
Since 2007 more than half the world’s population live in cities, where 80% of global GDP is now generated. By 2050, 2 out of 3 people will live in cities, with 90% of that growth in Asia and Africa.
Cities of the future will be integrative data ecosystems generating and consuming massive amounts of data related to people, their place, and their environment.
The 2030 Agenda: What do we hope to achieve?

2030 Agenda for Sustainable Development

- Declaration
  Vision and shared principles for people, planet, prosperity, peace and partnership

- Results Framework
  17 integrated and indivisible goals and 169 aspirational targets

Follow-up and Review

- Medium of Implementation
  - Governments, civil society, industry, the UN system, science and technology

Positioning geospatial information to address global challenges
The 2030 Agenda: Goals, Targets, Indicators

17 SDGs

169 Targets

232 global indicators to follow-up and review progress

Implementation via national planning processes, policies, strategies and frameworks

Measuring and monitoring: Statistics, geospatial information, Earth observations and other Big Data
Improving data quality and availability

143. Data of good quality are vital in order to make informed decisions and to ensure accountability for the implementation of the 2030 Agenda. Tracking progress on the SDGs requires the collection, processing, analysis and dissemination of an unprecedented amount of data and statistics at the subnational, national, regional and global levels, including those derived from official statistical systems and from new and innovative data sources.

147. New data sources and technologies for data collection will need to be explored, including through partnerships with civil society, the private sector and academia. The integration of geospatial information and statistical data will also be essential for the production of a number of indicators.
“Implementation has begun, but the clock is ticking. This report shows that the rate of progress in many areas is far slower than needed to meet the targets by 2030”

“This report provides a snapshot of our efforts to date. It stresses that high-level political leadership and new partnerships will be essential for sustaining momentum. It also underscores the need for reliable, timely, accessible and disaggregated data to measure progress, inform decision-making and ensure that everyone is counted”

António Guterres
Secretary-General, United Nations
Harnessing the power of data for sustainable development

To fully implement and monitor progress on the SDGs, decision makers need data and statistics that are accurate, timely, sufficiently disaggregated, relevant, accessible and easy to use. Data availability and quality have steadily improved over the years. However, statistical capacity still needs strengthening and data literacy must be enhanced at all levels of decision-making. This will require coordinated efforts on the part of data producers and users from multiple data systems. It will also demand innovative ways to produce and apply data and statistics in addressing the multifaceted challenges of sustainable development.

Leave no one behind

National averages, even city averages, often mask wide disparities among population groups. The identification of people suffering from deprivation therefore requires sufficiently detailed data across multiple dimensions, including age, sex, geography and disability status, among others. Any global or national statistical system must ensure that the coverage and level of data disaggregation for the follow-up and review of the 2030 Agenda leaves no one behind.

Towards this end, national statistical systems need to invest in the technology and skills necessary to collect and integrate data from multiple sources, including integration of geospatial information with statistics and other data. This means making better use of traditional statistical surveys, censuses and administrative records. It also means harnessing the power of technology to leverage new sources of data, such as from cell phone records, Earth observations, other sensors and social media. More citizen-generated data are also being used to monitor the needs and progress of vulnerable groups. However, new methodologies need to be developed to ensure the quality and reliability of such data.
Addressing the data needs for the 2030 Agenda

- Need to include all parts of the statistical system and new data sources
- Need for quality, accessible, timely and reliable disaggregated data
- Data on a wide range of topics; unprecedented amount of data

Interoperability and integration of systems is crucial to harnessing the potential of all types of data
Strengthening global geospatial information management

Contribution of regional committees, thematic groups and networks

Legal and policy frameworks and issues related to authoritative data

Trends in national institutional arrangements

Adoption of standards and technical specifications

Strengthening collaboration with UNGEGN

United Nations activities in geospatial information management

Secretariat programme management

Normative strengthening, capacity building and implementation of GGIM in support of the 2030 Agenda

UN-GGIM: Strengthening the Global Data Ecosystem

The activities and efforts that contribute to the unique local-to-global value of UN-GGIM for Member States

Frameworks, guides, norms, standards and methodological development

Global geodetic reference frame

Global fundamental geospatial data themes

Integration of geospatial, statistical and other information

Geospatial information and services for disasters

Land administration and management

Geospatial information for sustainable development

National geospatial data and information systems

Marine geospatial information
## Strengthening the Global Data Ecosystem

### 2017-2021 Strategic Framework

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<th>CONTEXT</th>
<th>VISION</th>
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<td>MANDATED STRATEGIC OBJECTIVES</td>
<td>Operating within agreed policies and institutional arrangements, and as an interconnected global community of practice, the Committee of Experts will ensure that geospatial information and resources are coordinated, maintained, accessible, and able to be used effectively and efficiently by Member States and society to address key global challenges.</td>
<td>Provide leadership in setting the agenda for the development of global geospatial information and to promote its use to address key global challenges. Provide a forum for coordination and dialogue with and among Member States and relevant international organizations on enhanced cooperation. Provide a platform for the development of effective strategies to build and strengthen national capacity and capability concerning geospatial information, especially in developing countries. Propose work-plans, frameworks and guidelines to promote common principles, policies, methods, standards and mechanisms for the interoperability and use of geospatial data and services. Make joint decisions and set the direction for the production and use of geospatial information within and across national, regional and global policy frameworks.</td>
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## Positioning Geospatial Information to Address Global Challenges

### Transforming our World: The 2030 Agenda for Sustainable Development

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<th>GLOBAL POLICY FRAMEWORK</th>
<th>Sendai Framework for Disaster Risk Reduction 2015-2030</th>
<th>SIDS Accelerated Modalities of Action (SAMOA) Pathway</th>
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<tr>
<td>GEOSPATIAL CHALLENGES &amp; DRIVERS</td>
<td>Environmental management</td>
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<td>Sustainable development</td>
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<td>Legal &amp; policy</td>
<td>Health &amp; welfare</td>
<td>Poverty reduction</td>
<td>Sustainable cities</td>
<td>Socio-economic metrics</td>
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### REQUIREMENTS

- Reduced duplication of effort in the capture, management, and delivery of fundamental geospatial information
- Authoritative, reliable and maintained geospatial data available nationally, regionally, and globally
- Increased return on investment through better coordination, use and reuse of data, information and systems
- Better evidence-based decision making, supported by good data, science and policy
- More open, accountable, responsive and efficient governments
- Presentation and delivery of timely and “fit for purpose” data in times of need
- Increased collaboration and integration of national data and information systems across all levels of government
- Best practices and use cases for enriching national processes on geospatial information management

### DIRECT NATIONAL BENEFITS & EFFICIENCIES

### OPERATING PRINCIPLES

- Sound Nat. Policies, Legal Frameworks & Institutional Arrangements
- Provision of Fundamental Authoritative Data and Information
- Agreed Standards, Methods, Guides and Frameworks
- Principles on Geospatial Information and Open Data
- Integration and Interoperability of National Information Systems
- Information Sharing and Knowledge Transfer
- Building Local to Global Capacity & Capability

### WORKING ACTIVITIES AND OUTPUTS

- Geospatial Information for Sustainable Development: 2030 Agenda, Sendai Framework, etc.
- Integration of Geospatial & Statistical Information: Implement the Global Statistical Geospatial Framework
- Geospatial Information and Services for Disasters: Implement Strategic Framework
- Global Geodetic Reference Frame: Roadmap to Implement
- Determination of global fundamental data themes
- Marine geospatial information
- Land administration and management
- Legal and policy frameworks
- National institutional arrangements
- Implementation and adoption of standards for the global geospatial information community
- National geospatial data and information systems
GLOBAL DEVELOPMENT POLICY FRAMEWORK

The 2030 Agenda for Sustainable Development
Sendai Framework for Disaster Risk Reduction 2015-2030
SIDS Accelerated Modalities of Action (SAMOA) Pathway
Paris Agreement on Climate Change
HABITAT III Urban Agenda

How does Digital Transformation enable the ‘data ecosystem’ to achieve Sustainable Development?

How do we bridge the Digital Divide?