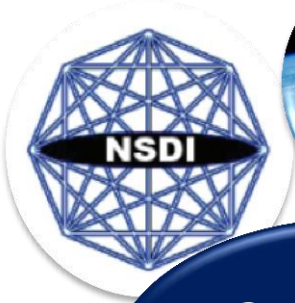


UN-GGIM - World Bank Forum Geospatial Information for Development A Joint Vision for Developing an Overarching Geospatial Framework Greg Scott

Global Geospatial Information Management
United Nations Statistics Division
Department of Economic and Social Affairs
United Nations, New York





Digital Evolution



Geospatial Frameworks



Digital Transformation

Implementing Nationally Integrated Information Systems



Data Rich

Digital Maturity

Digital Divide



Data Poor



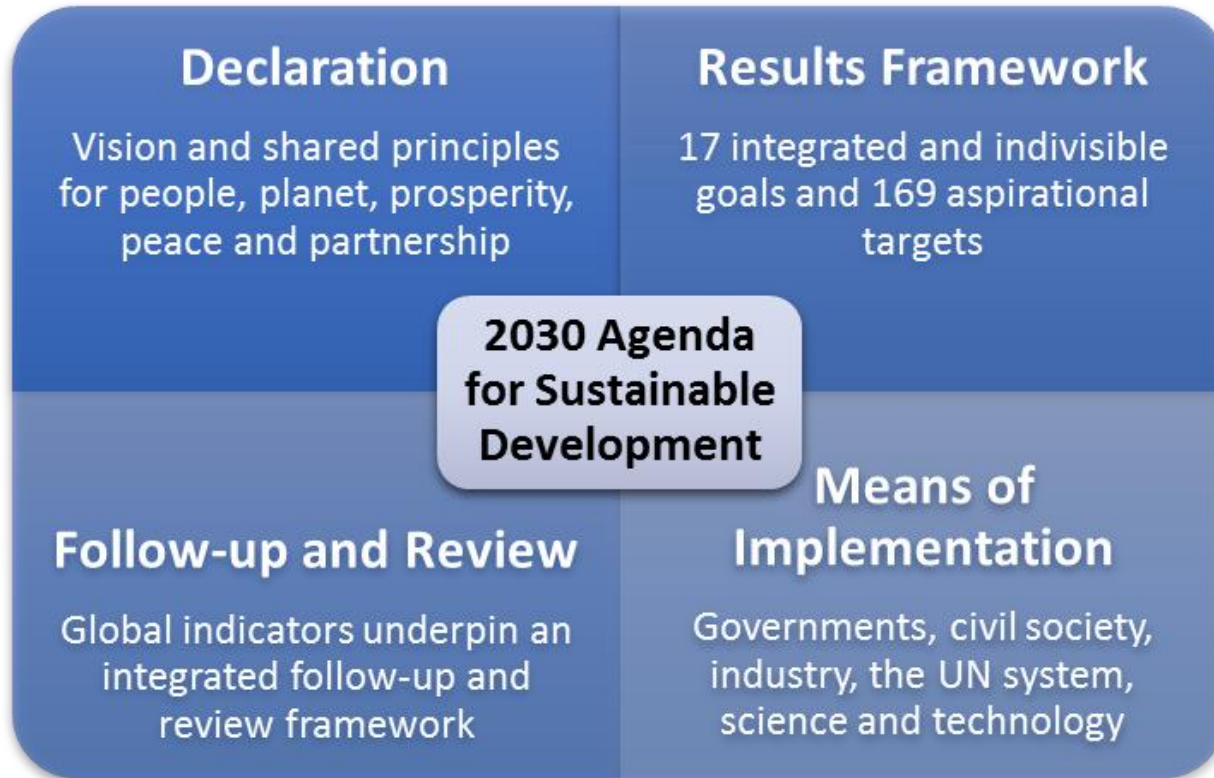
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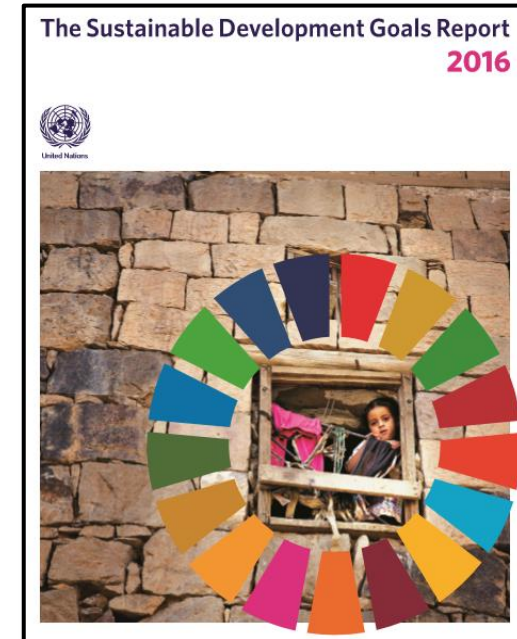
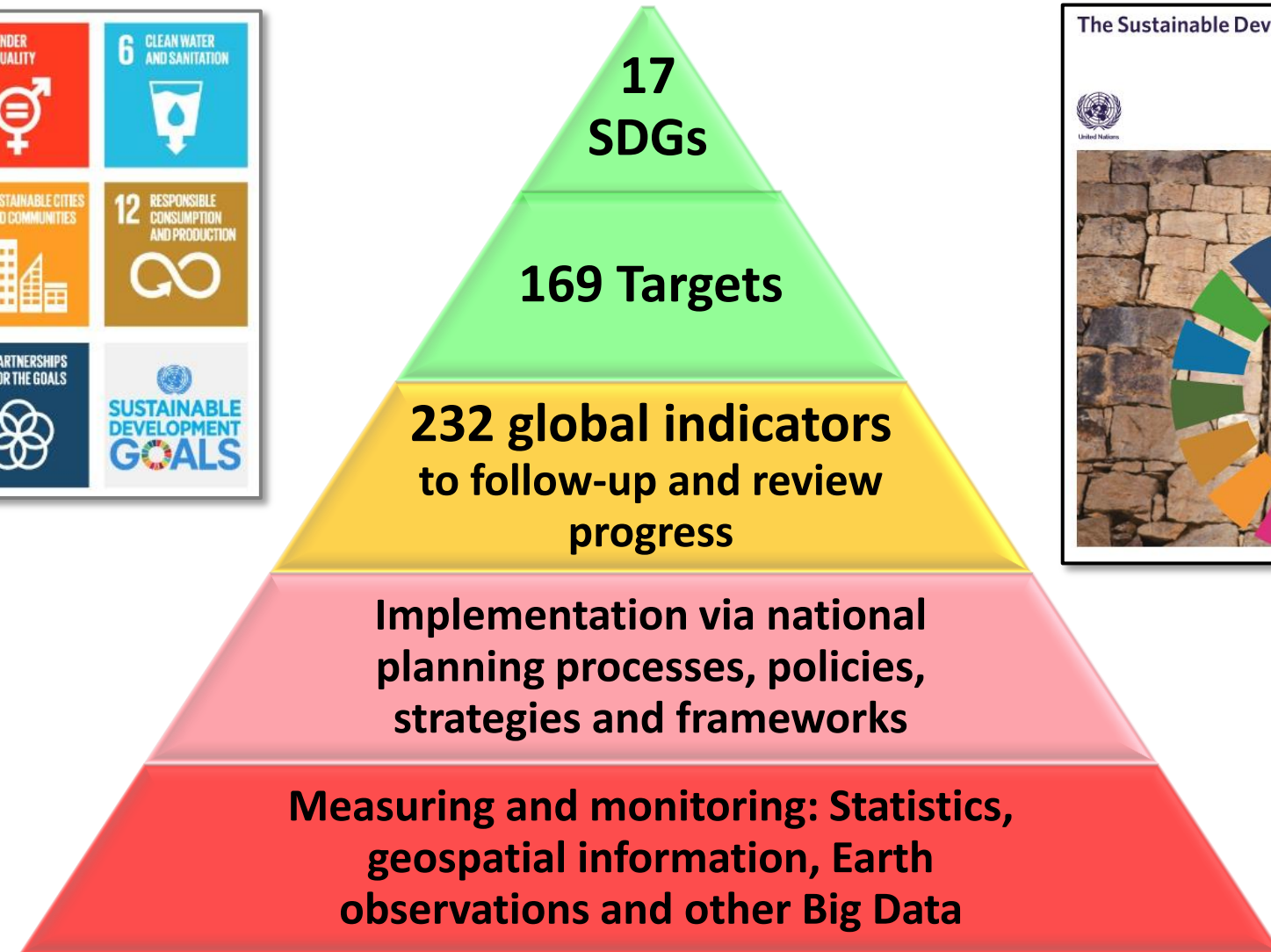
Positioning geospatial information to address global challenges

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The 2030 Agenda: What do we hope to achieve?



2030 Agenda: Goals, targets, indicators



A Strategic Framework for Integrating a Global Policy Agenda into National Geospatial Capabilities

“Despite significant advances in the availability of geospatial information and technologies, there is still a lack of awareness, understanding and uptake, particular at the policy and decision-making levels, of the vital and integrative role of geospatial information and related enabling architectures such as National Spatial Data Infrastructures (NSDIs) in contributing to national development. This lack of awareness and uptake is most prevalent in developing countries where national policies and technical capacities and capabilities need to be better aligned and considerably strengthened.”

“There is presently no evident national policy or framework for governments to determine how geospatial information can be implemented and integrated into their development agendas. This lack of policy and guidance, with commensurate critical gaps and connection points with national geospatial methods and frameworks, is a visible impediment to developing countries and those most affected by the challenges and need to achieve national development.”

Research Paper: <http://www.tandfonline.com/doi/full/10.1080/10095020.2017.1325594>



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Global Geospatial Policy Framework



2017-2021 Strategic Framework

CONTEXT	VISION	<i>Positioning geospatial information to address global challenges</i>				
	MISSION	<i>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 in a timely manner</i>				
	MANDATED STRATEGIC OBJECTIVES	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

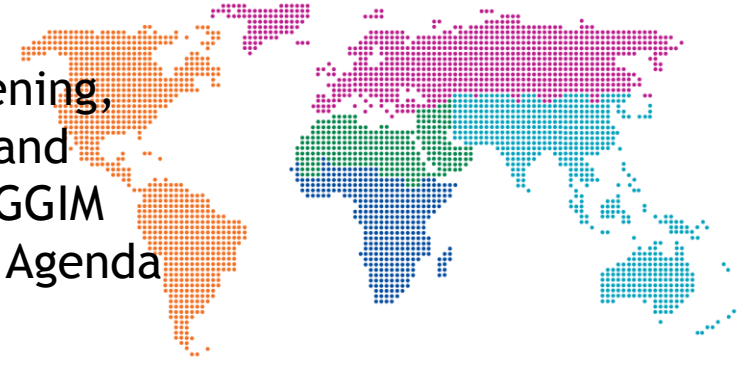










		Transforming our World: The 2030 Agenda for Sustainable Development						
		GLOBAL POLICY FRAMEWORK	Sendai Framework for Disaster Risk Reduction 2015-2030	SIDS Accelerated Modalities of Action (SAMOA) Pathway	Addis Ababa Action Agenda	Paris Agreement on Climate Change	HABITAT III Urban Agenda	
REQUIREMENTS	GEOSPATIAL CHALLENGES & DRIVERS	Environmental management Urban planning Land management Legal & policy	Disaster management Humanitarian assistance Climate change Health & welfare	Sustainable development Food security Oceans & marine Sustainable cities	Population National security Institutional governance Socio-economic metrics			
	DIRECT NATIONAL BENEFITS & EFFICIENCIES	<ul style="list-style-type: none"> • 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 						
	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
DELIVERABLES	WORKING ACTIVITIES AND OUTPUTS	<ul style="list-style-type: none"> • 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 						



Frameworks, guides, norms, standards and methodological development

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



-  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

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

-  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



National geospatial data and
information systems

- In adopting resolution 2016/27 entitled ‘Strengthening institutional arrangements on geospatial information management’, ECOSOC acknowledged the considerable achievements of UN-GGIM and its role in the implementation of the 2030 Agenda for Sustainable Development, and stressed the continued need to strengthen the coordination and coherence of global geospatial information management in capacity-building, norm-setting, data collection, data dissemination and data sharing, among others, through appropriate coordination mechanisms.
- The World Bank Group’s overarching mission is to reduce poverty, improve living conditions, and promote sustainable and comprehensive development in its developing member countries. It has established two ambitious goals to anchor its mission: end extreme poverty within a generation and boost shared prosperity. The Bank achieves these goals by providing finance, technical assistance, and through partnerships.



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Strengthening the Global Data Ecosystem



National geospatial data and
information systems

- Efforts by the Expanded Bureau, UNSD and the World Bank to explore and develop possible mechanisms for geospatial data, infrastructure and policies to be embedded more holistically within concessional financing, technical assistance and knowledge-sharing services and their subsequent implementation in developing countries.
- Recognize the need for collaboration to ***develop an overarching Geospatial Framework that countries could reference when using geospatial information to develop national systems tailored to their own situations.***
- The Framework will include an Action Plan and Road Map on means for implementation, as well as elements such as the economic impact and value of geospatial information systems, investment needs and associated principles, tools, guides and good practices.



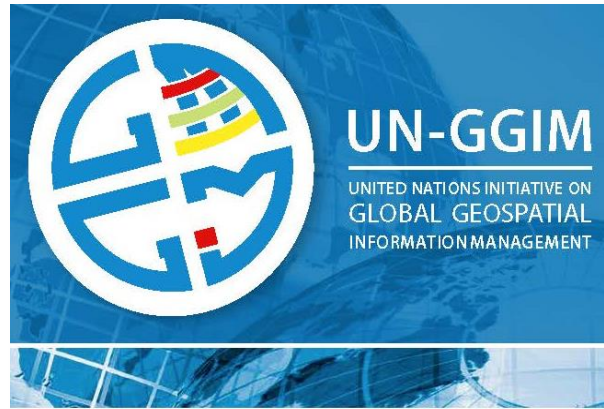
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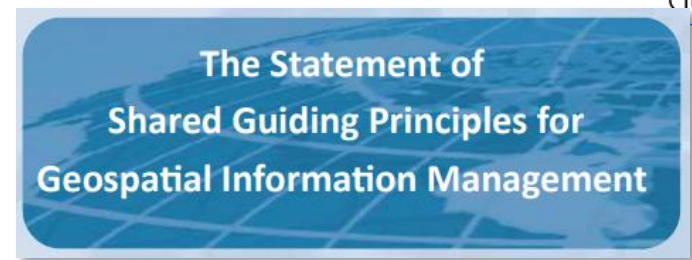
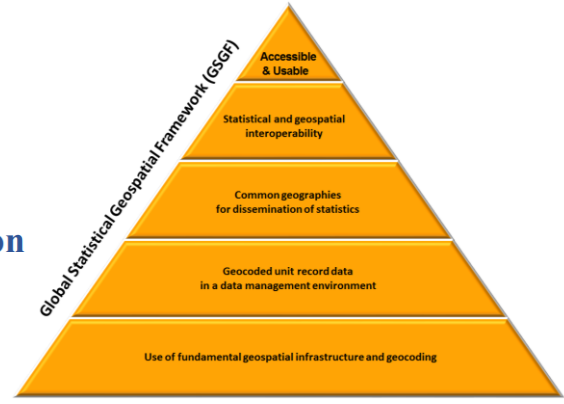
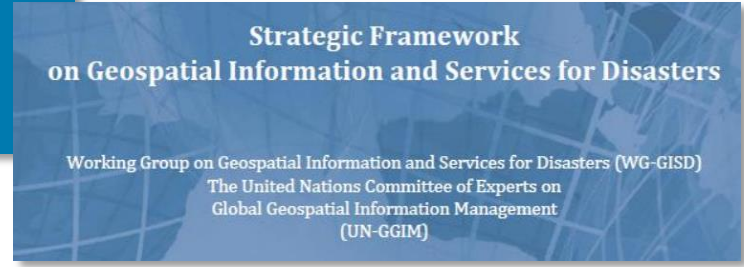
Principles, tools, guides and good practices



**National Institutional Arrangements:
Instruments, Principles and Guidelines**

**Compendium of good practices
for national institutional arrangements**

Compendium on Licensing of Geospatial Information
(final draft as at June 2017)



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2030 Agenda: National Policy Context

- The 2030 Agenda takes into account different national realities, capacities and levels of development; respecting national policies and priorities.
- **Each government decides how the aspirational and global SDGs and targets should be incorporated in national planning processes, policies and strategies.** It is important to recognize the link between sustainable development and other relevant ongoing processes in national economic, social and environmental priorities.
- Can we determine a national geospatial policy framework that is directed/guided by the global development policy frameworks, while accommodating individual country circumstances and individual organizational arrangements?
- A framework that comprises principles that facilitate institutional transparency, good governance, integrity and is fundamental to national needs.
- The framework would propose an environment where government organizations can cooperate, and thus improve, the management and exchange of geospatial information to support and serve the national interest.



National Geospatial Policy Context

National Geospatial Strategic Framework

To integrate geospatial information into national sustainable development policies and strategies

NATIONAL POLICY CONTEXT	VISION	<i>Achieve sustainable development through the effective use of national geospatial information, systems and capabilities for evidence based policy and decision making</i>					
	MISSION	<i>Integrate geospatial information data, tools and services into national sustainable development policies, strategies and arrangements, with particular application to the goals, targets and indicators of the SDGs, in order to measure progress and transformative change according to national priorities and circumstances</i>					
	STRATEGIC OBJECTIVES AND OUTCOMES	Implement a national geospatial policy framework in line with global policy frameworks, and that accommodates individual organizational arrangements	Enabling environment for government organizations to collaborate and cooperate in the management and exchange of geospatial information to support and serve national development interests	National leadership in the development of geospatial information and its use to address national challenges and drivers	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	Support measuring, monitoring and reporting annual progress on national development targets for the SDGs using timely and accurate geospatial and statistical information and related capabilities	
	STRATEGIC AGENCIES & DATA PROVIDERS	National Geospatial Information Systems & NSDI Custodians	National Statistical Systems & Offices	National Environment, Water & Climate Agencies	National Space, Meteorological and/or Earth Observations Agencies	National Social, Health & Education Agencies	Other agency sources of Data, including Big Data & civil society data



National Geospatial Policy Context

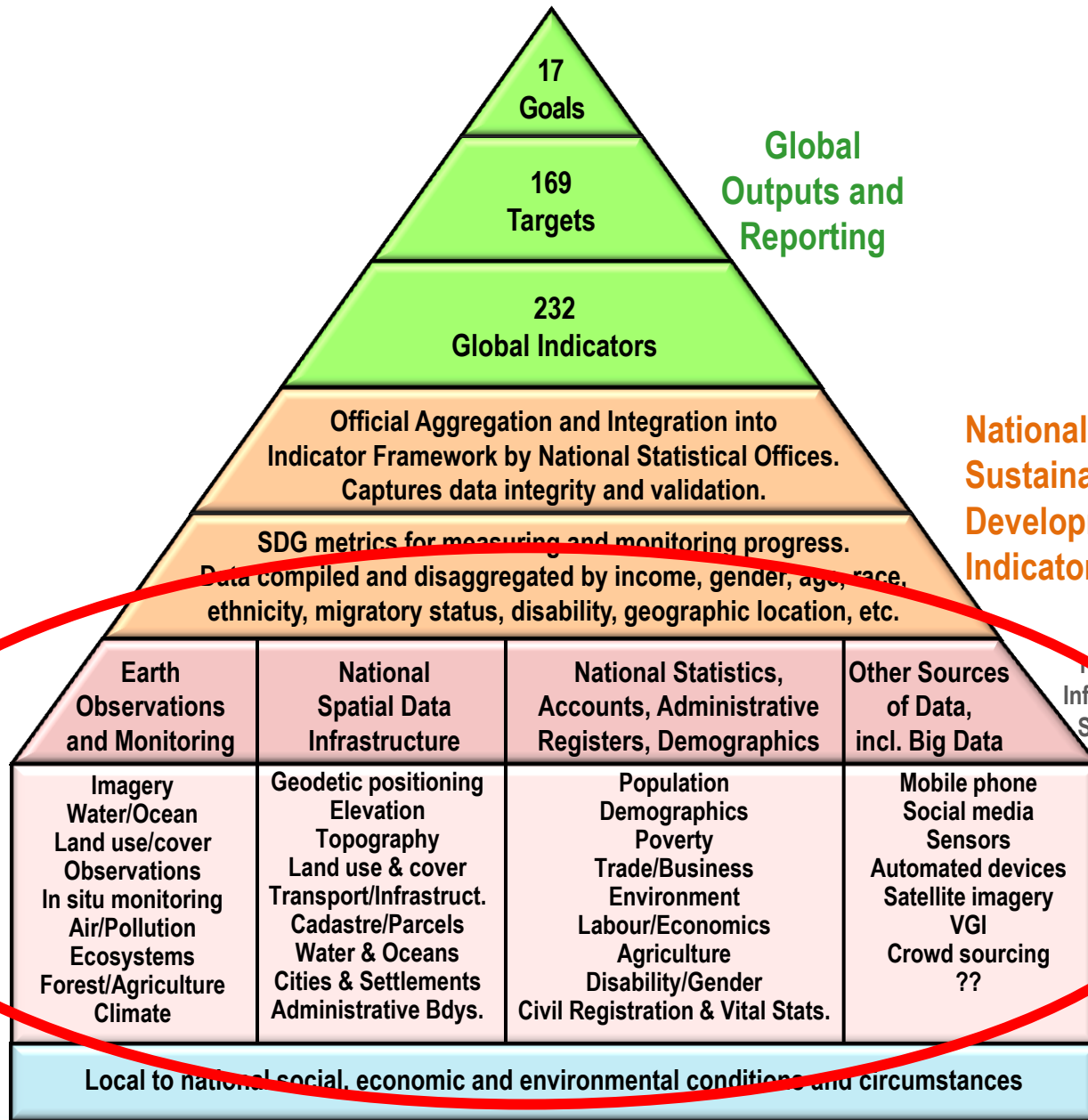
DEVELOPMENT NEEDS	GLOBAL DEVELOPMENT POLICY FRAMEWORK	Transforming our World: The 2030 Agenda for Sustainable Development				
		Sendai Framework for Disaster Risk Reduction 2015-2030	SIDS Accelerated Modalities of Action (SAMOA) Pathway	Addis Ababa Action Agenda	Paris Agreement on Climate Change	HABITAT III Urban Agenda
	NATIONAL DEVELOPMENT CHALLENGES & DRIVERS	Environmental management Urban planning Land management Legal & policy	Disaster management Humanitarian assistance Climate change Health & welfare	Sustainable development Food security Oceans & marine Sustainable cities	Education Institutional governance Socio-economic metrics	Population National security

PRINCIPLES & BENEFITS	NATIONAL GEOSPATIAL PRINCIPLES	National Leadership and Institutional Arrangements	Provision of Fundamental Authoritative Data and Information	Agreed Standards, Methods, Guides and Frameworks	Licensing Geospatial Information and Open Data	Integration and Interoperability of National Information Systems	Stewardship and Custodial Responsibilities	Building National Knowledge, Capacity & Capability
	DIRECT NATIONAL BENEFITS & EFFICIENCIES	<ul style="list-style-type: none"> • 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 						

DELIVERABLES	WORKING ACTIVITIES & OUTPUTS (EXAMPLES)	<ul style="list-style-type: none"> • Integration of geospatial and statistical Information: Implement the Global Statistical Geospatial Framework • Support measuring, monitoring and reporting annual progress on national development targets for the SDGs using timely and accurate geospatial and statistical information and related capabilities • Implement national positioning strategies related to geodetic reference frames • Determine and implement national fundamental geospatial data themes and requirements • Unit level addressing and geocoding: Accurate and consistent address, property, building or location information • Consider national legal and policy frameworks for geospatial data, including Open Data • National institutional and organizational arrangements • Implementation and adoption of standards for the provision of geospatial information • Integrate national geospatial data and statistics with other national information systems
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An integrative data ecosystem



Global Outputs and Reporting

National Sustainable Development Indicators

National Information Systems

Data Inputs

Fundamental baseline data and new data sources



Issues and considerations



National geospatial data and
information systems

1. With the enabling global mechanism of the 2030 Agenda, the challenge is how to most effectively transfer quickly evolving technology and data richness to the technology and data poor. Are we on the right track? Is this the right approach?
2. The Framework needs to be implementable and sustainable, and cover many unique national circumstances. What additional topics, guides and good practices are needed?
3. How do we develop the Geospatial Framework - national, global?
4. What are the elements of the Action Plan and Road Map on means for implementation?
5. How do we best consult with Member States and the global geospatial community in implementing this initiative?
6. Should we assemble a small, strategic Task Team to implement the Agreement and develop the Action Plan and Road Map? Should we also consider donors and funding streams?



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