Geographical Names: Relevance and place within the UN-GGIM framework

Greg Scott

JN-GGIM

Inter-Regional Advisor Global Geospatial Information Management United Nations Statistics Division



United Nations Initiative on Global Geospatial Information Management

Positioning geospatial information to address global challenges

UN-GGIM: A global initiative

Formal inter-governmental UN Committee of Experts to:

- Discuss, enhance and coordinate Global Geospatial Information Management activities by involving Member States at the highest level. Reports to ECOSOC
- Make joint decisions and set directions on the use of geospatial information within national and global policy frameworks
- Work with Governments to improve policy, institutional arrangements, and legal frameworks
- Address global issues and contribute collective knowledge as a community with shared interests and concerns
- Develop effective strategies to build geospatial capacity in developing countries

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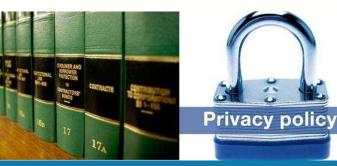
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UN-GGIM: Why a global mechanism?

- Significant gap in the recognition and management of geospatial information globally
- Lack of a global consultative and decision-making mechanism among Member States in:
 - setting global norms on geospatial information;
 - developing common tools; and

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- bringing geospatial information to bear on global policy issues
- This gap is increasingly being filled by the private sector, reducing the role and influence of Governments
- Governments, not the private sector, have the mandate and accountability to maintain and deliver the national geospatial information base and related policy







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Global Geospatial Information Management

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UN-GGIM: A global geospatial mandate

At its 47th plenary in July 2011, ECOSOC, recognizing the importance of global geospatial information, established the Committee of Experts on Global Geospatial Information Management (UN-GGIM), and:

- Requested the Committee to present to ECOSOC in 2016 a comprehensive review of all aspects of its work and operations, in order to allow Member States to assess its effectiveness.
- Encouraged Member States to hold regular high-level, multi-stakeholder discussions on global geospatial information, including through the convening of global forums, with a view to promoting a comprehensive dialogue with all relevant actors and bodies.

Resolution

2011/24

Committee of Experts on Global Geospatial Information Management

The Economic and Social Council,

1. *Takes note* of the report of the Secretary-General on global geospatial information management³ and the recommendations contained therein;

2. *Recognizes* the need to promote international cooperation in the field of global geospatial information;

3. Decides, in this regard, to establish the Committee of Experts on Global Geospatial Information Management, in accordance with the terms of reference contained in the annex to the present resolution, to be established and administered within existing resources and organized accordingly, and requests the Committee to present to the Economic and Social Council in 2016 a comprehensive review of all aspects of its work and operations, in order to allow Member States to assess its effectiveness;

4. *Encourages* Member States to hold regular high-level, multi-stakeholder discussions on global geospatial information, including through the convening of global forums, with a view to promoting a comprehensive dialogue with all relevant actors and bodies;

5. *Emphasizes* the importance of promoting national, regional and global efforts to foster the exchange of knowledge and expertise, to assist developing countries in building and strengthening national capacities in this field.

Positioning geospatial information to address global challenges

47th plenary meeting 27 July 2011



United Nations Initiative on Global Geospatial Information Management

Third Session of the Committee of Experts July 2013





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United Nations Initiative on Global Geospatial Information Management

Cambridge Conference/UN-GGIM Ministerial Session



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Geospatial Information: its importance to governments



"In Namibia a country in which water is a scarce resource...spatial data is only below water in significance"

Minister Alpheus G. !Naruseb, Minister of Lands and Resettlement, Namibia



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"We envisage a dynamic Pacific if we can be assisted in implementing the UN-GGIM Resolutions for geospatial information. We need to put in place a solid framework from local to national then regional level"

Tevita Boseiwaqa, Permanent Secretary for Lands and Mineral Resources, Fiji

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Second Session of the Committee of Experts August 2012

"...building effective geospatial infrastructures and promoting greater use of geospatial information are part of a new frontier in harnessing science and technology for advancing sustainable development"

Wu Hongbo Under-Secretary-General for Economic and Social Affairs August 2012





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UNGEGN and UN-GGIM Geographical names and Geospatial information



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Positioning geospatial information to address global challenges

What's in a name?



Accurate, knowledgeable, consistent, sustained, reliable, standardized, transparent, enduring, agreed, official



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What's in a place?

Building any National Spatial Data Infrastructure requires authoritative nat Chelos pate framework data themes.

Geographical Names bring context and understanding to the data. They provide "place" to "location"

Geographical Names **Address** Property Administrative Hydrology Transport Geodetic **Bathymetry** Land Use Elevation Imagery

aual information to address global challenges



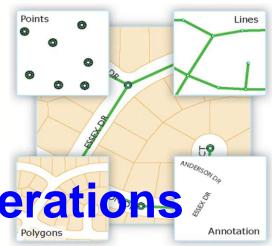
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What's the problem?

- Geographical names or geospatial information the challenges, implications and considerations are the same – 'place' and 'location'
- Lack of understanding by users geonames, geography, maps, education interface changing
- Traditional use of maps and data points, lines, polymphications and Considerations
- We are used to order and structure....but the world is becoming less ordered and less structured!!
- Need to move in terms of thinking, institutional arrangements, data usage, dissemination, etc.
- Data is not being fully utilized. New forms of integration and dissemination required

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 Conversely, data is being integrated and used in ways we never imagined



Think outside the b

Thinking outside the box to to unconventionally or from a new often refers to novel or creative called a process of lateral thoug cliché, has become widely used especially by management con www.shutterstock.com · 87281353





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UN-GGIM Activities Significant relevance to UNGEGN



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UN-GGIM: Areas of activity

- 1. Establishment of regional UN-GGIM entities
- 2. Future trends in geospatial information management
- 3. The global geodetic reference frame

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- 4. Determining global fundamental geospatial data themes
- 5. Trends in national institutional arrangements in geospatial information management
- 6. Development of a global map for sustainable development
- 7. Legal and policy frameworks, including critical issues related to authoritative data
- 8. Implementation and adoption of standards for the global geospatial information community
- 9. Linking of geospatial information to statistics and other data
- 10. Developing a shared statement of principles on the management of geospatial information
- 11. Activities related to sustainable development and the post-2015 development agenda
- 12. Development of a knowledge base for geospatial information

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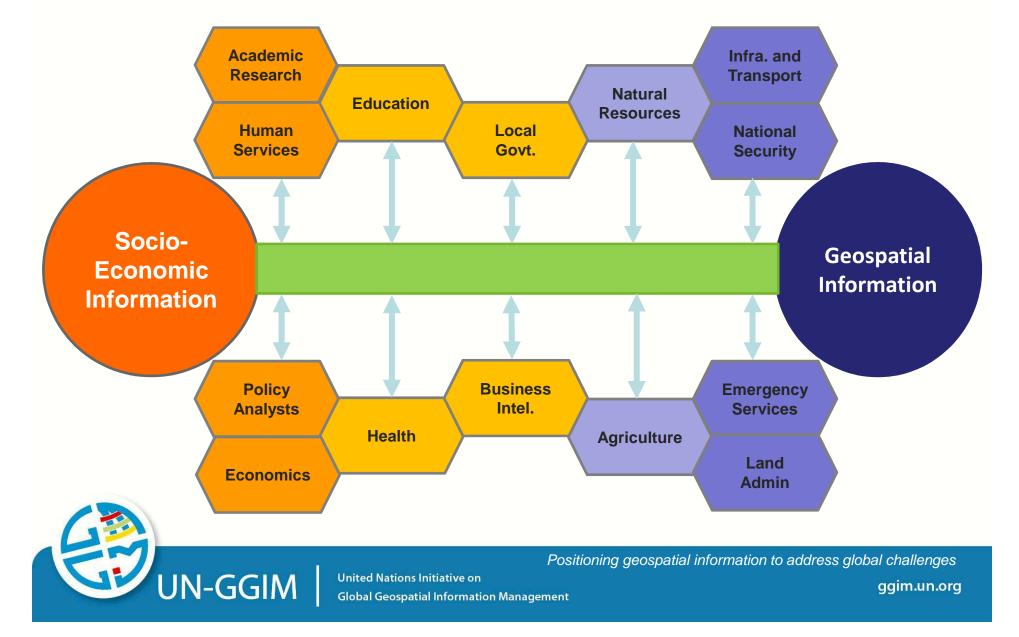
13. Coordination of UN activities in geospatial information management



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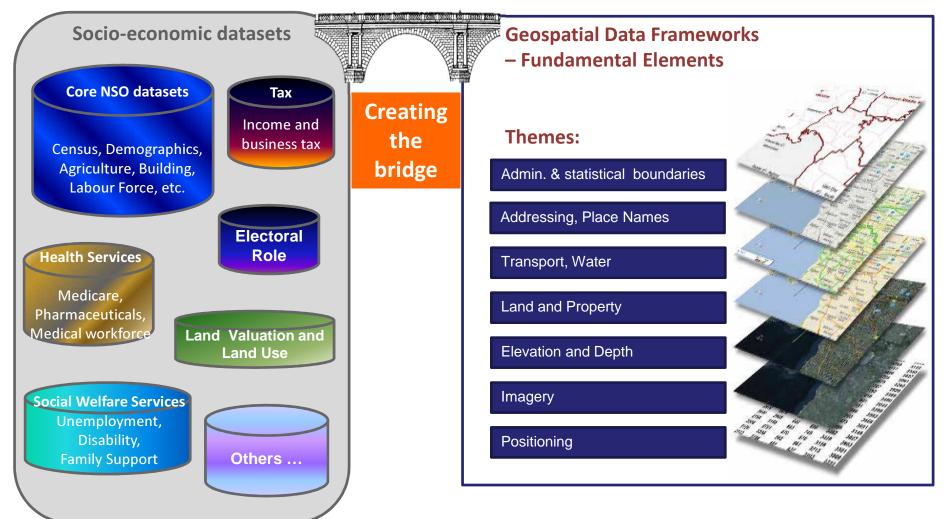
Linking geospatial information to statistics A growing continuum of user needs



Statistical Community

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Geospatial Community





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United Nations Statistical Commission



United Nations Global Forum on The Integration of Statistical and Geospatial Information 4-5 August 2014, UN Headquarters, New York

This Global Forum is being convened in conjunction with the 4th Session of UN-GGIM, and is open to National Statistical Organisations, UN-GGIM members, and invited experts

Come and interact with international experts and colleagues from the statistical and geospatial communities on topics including:

- Integration of socio-economic and environmental information using geography
- · International standards development to improve geo-statistics
- New developments in geocoding statistics

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- How National Spatial Data Infrastructure developments can support statistical operations
- · Development of an international statistical geospatial framework
- Positioning countries for the 2020 round of Population Censuses

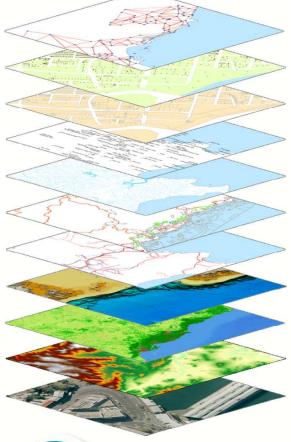
Panel sessions will discuss key topics



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Global fundamental geospatial data themes



Positioning (Geodetic) Address (Buildings) Cadastre (Tenure) Names (Gazetteer) Water (Hydrology) Administrative Boundaries Transport Bathymetry (Hydrography) Land cover (Vegetation) Elevation Imagery (Satellite & Photo)

Geogra Gadas Natur Cima Land, Relief Coast State

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Geographical names

Cadastre, Topographic, Natural Resources and Climate Data

Land, Island and Submarine Relief

Coastal, International, State and Municipal Limits

Geodetic Reference Frame



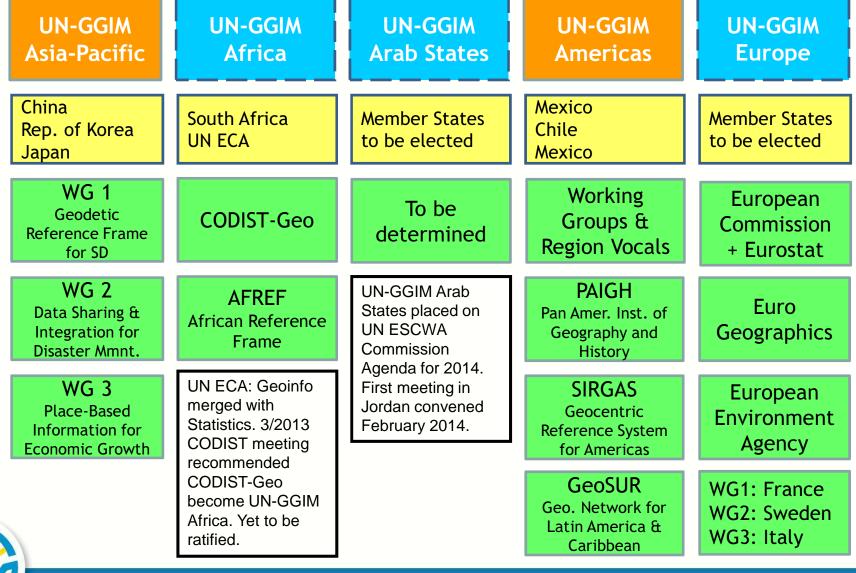
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UN-GGIM Committee of Experts

UN-GGIM Asia-Pacific	UN-GGIM Africa	UN-GGIM Arab States	UN-GGIM Americas	UN-GGIM Europe
China Rep. of Korea Japan	South Africa UN ECA	Member States to be elected	Mexico Chile Mexico	Member States to be elected
WG 1 Geodetic Reference Frame for SD	CODIST-Geo	To be determined	Working Groups & Region Vocals	European Commission + Eurostat
WG 2 Data Sharing & Integration for Disaster Mmnt.	AFREF African Reference Frame	UN-GGIM Arab States placed on UN ESCWA Commission	PAIGH Pan Amer. Inst. of Geography and History	Euro Geographics
WG 3 Place-Based Information for Economic Growth	UN ECA: Geoinfo merged with Statistics. 3/2013 CODIST meeting recommended	Agenda for 2014. First meeting in Jordan convened February 2014.	SIRGAS Geocentric Reference System for Americas	European Environment Agency
	CODIST-Geo become UN-GGIM Africa. Yet to be ratified.		Geo. Network for Latin America & Caribbean	WG1: France WG2: Sweden WG3: Italy
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Future trends in geospatial information management: the 5-10 year vision



information management: the five to ten year vision





кован Картографическим Управлением (Великобрятания) г Экспертной компесии ООН во Управлению Глобалаю

ная, чоудущие тенденция геопр. на пить-десять лет, ноль 2013 г.»

Будущие тенденции управления геопространственной информацией нагляд на пять-десять лет

Тенденции в технологии и будущее



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Future Trends Five broad themes identified

- Trends in technology and the future direction of data creation, maintenance and management;
- Legal and policy developments;
- Skills requirements and training mechanisms;
- The role of the private sector and nongovernmental sectors; and
- The future role of governments in data provision and management.



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The future role of governments in geospatial data provision and management

End-users should be able to consume government-assured geospatial data with the level of trust in quality as they do when they get water from the tap - they are going to get what they expect.





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International geospatial standards

- Countries and Governments do not understand and/or appreciate the value of standards.
- Educate decision-makers of the value of standards at the policy level.
- Look at the high level economic value of geospatial infrastructure, standards and interoperability, and the economic benefit.
- OGC/ISO/IHO Standards Guide. The core essential standards.
- White Paper titled "National Mapping Perspective: International Geospatial Standards"



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THE GLOBAL GEODETIC REFERENCE FRAME

The United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM), established in 2011 by the Economic and Social Council (ECOSOC), recognizes the growing demand for more precise positioning services, the economic importance of the global geodetic reference frame, and the need to improve global cooperation within geodesy.

Geodesy provides a coordinate reference frame for the whole planet, fundamental for:

- Monitoring changes to the Earth including the continents, ice caps, oceans and the atmosphere
- Mapping, navigation and universal timing

This coordinate system allows us to know where people and features are on the Earth. "Location" is a vital component for effective decision making.





PHOTO: MORTEN BRUN



ABSY:

IMPORTANT APPLICATIONS ARE:

Climate change and sea level monitoring

Climate change is a global challenge that puts stronger requirements on the precision of the global geodetic reference frame. Geodesy provides information about sea level changes, plate movements, land uplift, and ice sheet and glacier changes. Global society requires information about current trends at a scale measured in millimeters to detect changes of the Earth system with sufficient accuracy, for local, regional and global planning.

To be able to monitor and estimate future sea level variations, significant improvements in both geodetic infrastructure and data analysis are needed.

Geospatial information, mapping and navigation

'Location-based' services are becoming increasingly important in modern society.

The global geodetic reference frame supports satellite positioning technology and is a critical enabler of geospatial information interoperability and applications such as land titling and ownership, engineering construction, precision agriculture, intelligent transport and navigation.

Natural hazard and disaster

management Decision makers need an accurate and stable global geodetic reference frame to make good decisions for the future and to identify areas under threat of flooding, earthquakes or drought and to adopt preventive measurements to protect them. Geodesy provides the location basis for such decisions.



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Invitation to briefing on Geospatial Information Technologies _{Tuesday,} 6 May 2014

The Permanent Missions of Australia, France, Jamaica and Norway invite you to attend a briefing on the importance of Geospatial Information Technologies.

Speakers:

Mr. Gary Johnston (Moderator) Geoscience Australia, Australia

Ms. Anne Joergensen Norwegian Mapping Authority, Geodetic Institute, Norway

Mr. Tevita Boseiwaqa Department of Lands and Mineral Resources, Fiji

Dr. Zuheir Altamimi National Institute of Geographic and Forestry Information, France

> Mr. Milton Saunders National Land Agency, Jamaica

Tuesday, 6 May 2014, 1:15 to 2:30 pm CR E North Lawn Building at the United Nations

Lunch will be provided!

Kindly RSVP within May 4th to emilie.everett@mfa.no

Legal and policy frameworks



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National institutional arrangements



SUREVY AND ANALYSIS

Review GIM institutional arrangements in Member States Identify Gaps

Best Practices in Institutional Arrangements

RESEARCH What are effective GIM Institutional Arrangements

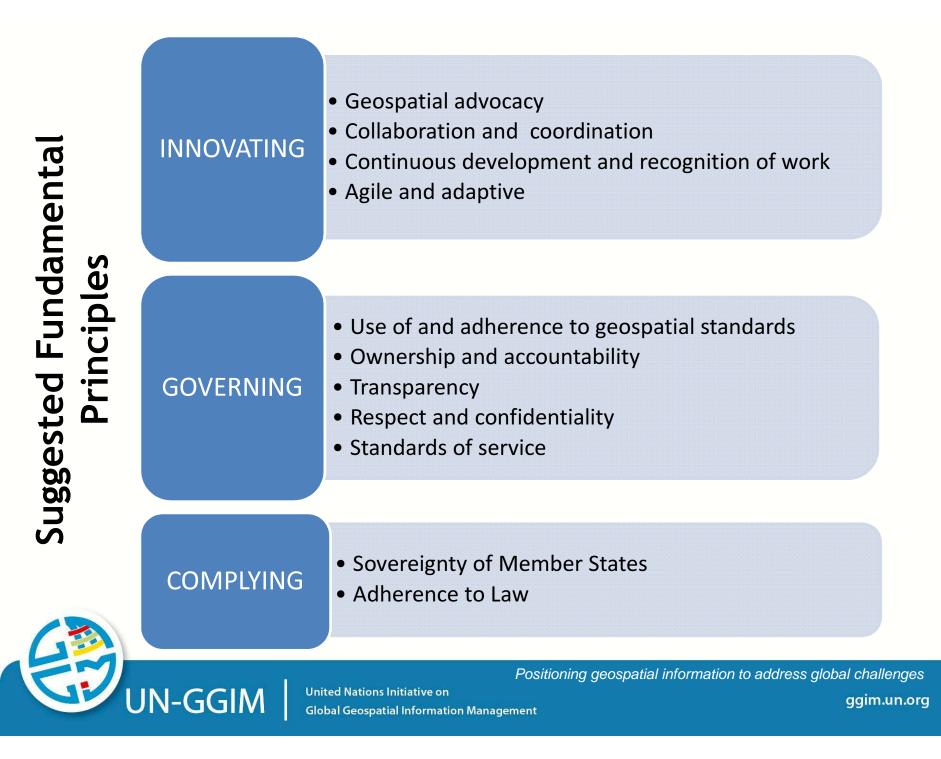
PREPARE PAPERS

- 2 year work plan
- Technical papers on research findings
- Report for 4th Session of UN-GGIM
 Committee of Experts

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How can you measure and monitor sustainable development...



...without location and geography



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Monitoring Sustainable Development: Why Location Matters?







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The Future We Want: 19th June 2012

187. We recognize the importance of early warning systems as part of effective disaster risk reduction at all levels in order to reduce economic and social damages including the loss of human life, and in this regard encourage States to integrate such systems into their national disaster risk reduction strategies and plans. We encourage donors and the international community to enhance international cooperation in support of disaster risk reduction in developing countries as appropriate through technical assistance, technology transfer as mutually agreed, capacity building and training programmes. We further recognize the importance of comprehensive hazard and risk assessments, and knowledge and information sharing, including reliable geospatial information. We commit to undertake and strengthen in a timely manner risk assessment and disaster risk reduction instruments.

274. We recognize the importance of space-technology-based data, in situ monitoring, and reliable geospatial information for sustainable development policy-making, programming and project operations. In this context, we note the relevance of global mapping and recognize the efforts in developing global environmental observing systems, including by the Eye on Earth network and through the Global Earth Observation System of Systems. We recognize the need to support developing countries in their efforts to collect environmental data.



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Responsible Governance and Sustainable Development



UN Conference on Small Island Developing States Apia, Samoa | 2014



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"Positioning geospatial information to address global challenges"

Suva Statement on Spatially Responsible Governance

Recognizing Small Island Developing States in the Pacific are unique in their situation and with particular vulnerabilities, remain a special case for sustainable development.

Recognize that Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests outline the principles and practices that governments can refer to when making laws and administering land, fisheries and forest rights, particularly in the administration of tenure and specifically in areas such as the recording of tenure rights, valuation, taxation, spatial planning as well as issues and responses that is required in the recognition and protection of access and rights.

Recognize that the United Nations initiative on Global Geospatial Information Management provides an inter-governmental consultative mechanism on place, locality and geography and plays a leading role in setting the agenda for the development of global geospatial information, infrastructure and its management.

Recognize that key partners of the Global Land Tool Network supported by the Secretariat in UN-Habitat are actively developing pro-poor gender sensitive and scalable land tools in support of the Continuum of Land Rights and alternative forms of secure tenure that include the administering of customary rights.

Recognize that all activities have a geographical and temporal context, and where communities and governments make decisions and organize their affairs through the effective and efficient use of geospatial data, information and services.

Agree that information on geography, custodianship and ownership is foundational for informed decision-making, resilience and sustainability. It is therefore essential that such foundational data and information has authority, currency and is comprehensive, freely available, accessible and usable.

Agree that weak governance hinders sustainable use of the environment, hinders economic growth, can condemn people to hunger and poverty and the loss of lives through violent conflicts.



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"Positioning geospatial information to address global challenges"

Chengdu Forum on Global Geospatial Information Management 15-17 October 2013, Chengdu, China

Development and Applications in Urban Hazard Mapping



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Chengdu Forum

"...there will be a consensus on the vital role of geospatial information in all phases of hazard and disaster risk management and reduction. This will extend the ability for nations to not only map their geography and topography, but also those areas that are vulnerable to natural hazards, particularly in urban environments. It will also provide better understanding to decision-makers and emergency responders"

Wu Hongbo Under-Secretary-General for Economic and Social Affairs







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Chengdu Forum Main Conclusions

- 1. GI needs to contribute to the post-2015 sustainable development agenda: disaster risk reduction; sustainable development; and the global trend towards urbanization.
- 2. Provide leadership in raising the awareness and importance of GI in disaster preparedness, mitigation, response and recovery, sustainable development and safeguarding life.
- 3. Recognize the important role of standards and interoperability when using GI in disaster phases. Need for standardization and terminologies across countries.
- 4. DRR requires a data driven and a geospatial approach risk, hazard, exposure, vulnerability, communities, infrastructure at risk, etc. It is also a statistical approach populations, addresses, postcode, census, village, etc. Need definitive population and economic data to understand exposure and vulnerability.
- 5. New requirements for combining authoritative information, including access and coordination, with response information from the crowd and citizens, particularly as it applies in rapid response situations.
- 6. Institutional and policy barriers to data sharing fall away in response to disasters. At other times there are data silos and security concerns. These concerns need to be balanced with the need to make more data available.



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7th Session of the Open Working Group on Sustainable Development Goals





The Role of Geospatial Information in Measuring and Monitoring the Sustainable Development Goals Disaster risk reduction, sustainable development, and global urbanization

- The SDGs will depend on human and physical geography. In order to measure and monitor change and progress you must have access to fundamental and consistent geospatial information geography.
- Not all targets will be equal and will require different means of measure. Indicators will need to be linked to the targets and be well defined, measurable over time, cost effective and clearly and easily communicated.
- There will be a need to create a network of consistent global data reliable geospatial information - to measure and monitor trends, change and progress over time in a standardized manner.



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7th Session of the Open Working Group on Sustainable Development Goals

Concluding Remarks: Climate change and disaster risk reduction

The inter-connected nature of risks posed by climate change and natural disasters was recognized. Strong actions on climate change mitigation and adaptation are among the most effective means of reducing disaster risks.

Without such actions, the frequency and intensity of, and the vulnerability to, disasters will only intensify in coming years and decades.

There is a need for a range of solutions, including access to technology and early warning systems for disaster management, and enhanced stakeholder capacities at all levels. The role of good governance and incorporation of lessons learned from indigenous knowledge was also recognized.



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3rd High Level Forum on Global Geospatial Information Management 22-24 October 2014, Beijing, China

'The contribution of geospatial information to the post-2015 development agenda'



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UNITED NATIONS INITIATIVE ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT

4th Session of Committee of Experts 6-8 August 2014, UN Headquarters, New York



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