

**Second Preparatory Meeting of the Proposed United Nations Committee of Experts on
Global Geographic Information Management, New York, 10-11 May 2010**

The following comments are provided to help shape the Agenda, discussion and ToRs for the upcoming Second Preparatory Meeting of the Proposed UN Committee of Experts on Global Geographic Information Management to be convened in New York, 10-11 May 2010.

What are the objectives and aims of Global Geographic Information Management?

These have initially been determined by:

- The Preparatory Meeting of the Proposed United Nations Committee on Global Geographic Information Management, Bangkok, Thailand, 25 October 2009.
- Resolution VII at the 18th UNRCC-AP, Bangkok, Thailand, 26-29 October 2009.
- Decision X at the 41st session of the UNSC, New York, 23-26 February 2010.

Background context statements

The rapid development of, and increased demand for, geographic information infrastructure in all countries in past years, has made geographic information an invaluable tool in policy planning and decision-making.

Geographic information is now recognized as an invasive enabling technology, generating and liberating copious amounts of data and information – building the ‘evidence base’ for informed decision-making.

The power of spatial tools in integrating various data from many sources and multiple formats, and the discovery, access, integration and delivery of geospatial data can become much easier with enhanced interoperability.

Spatial Data Infrastructures (SDI), Spatially Enabled Government (SEG), and Spatially Enabled Societies (SES) are common and understood terms used in the developed nations. ***In the developing member States they are NOT.***

What about the developing member States?

Global issues, such as climate change, food and energy crises, peace operations and humanitarian assistance, all require strong support for geographic information management on a global scale.

Many nations now promote the use of geographic information to address key global challenges (poverty reduction, sustainable development climate change and disaster management) and, thus, raise the professional visibility.

There is presently an absence of a United Nations consultation process, led by member States, which deals with global geographic information management, coordinates regional efforts, promotes global norms on geographic information and brings such information to bear on global issues.

There are requests from member States for a global mechanism, the work to develop common frameworks and tools and a process of standardization, for which the United Nations has a key mandate, to address the need and the necessity for experience exchange and technology transfer on geographic information tools and infrastructures, with specialized, regional and international organizations.

There is a need to provide a platform to develop effective strategies on how to build and strengthen capacity for the management of geographic information, especially in developing countries.

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Disasters can wipe out years of hard-won development progress, devastate lives and livelihoods and cripple developing economies. Disaster impacts are exacerbated by several factors, including increases in global population, unplanned urbanization, growing settlement and investment in high-risk coastal areas, deforestation, poor land-use management, inadequate enforcement of building codes and periodic economic fluctuations. Without action, disasters will continue to disproportionately affect the poorest people in developing countries.

Disaster risk reduction (DRR) is an emerging priority that has been endorsed by national leaders. Investing in DRR protects lives, livelihoods and property, and is critical for sustainable development, including the achievement of the Millennium Development Goals. DRR is being recognized as a major driver for a spatially enabled Asia-Pacific.

Much has been achieved in applying geographic information to disaster response, especially in using imagery and fundamental spatial data to 'record' what disasters took place and what areas were affected. However, these achievements are variable, reactive, often uncoordinated and not to appropriate standards and/or practices. Further, the ability to apply geo-information technologies to disaster mitigation and reduction **before events happen** has been limited due to a lack of capacity and capability, particularly within many developing member States.

What are the critical issues in Global Geographic Information Management?

These responses and thoughts are very much aimed at addressing the critical needs of the developing member States rather than the developed nations. It may transpire that the developing nations are under-represented at the GGIM table, so the perspectives of PCGIAP and the 18th UNRCC-AP are very relevant and pertinent.

The 18th UNRCC-AP recognized the benefits of having access to data in times of disaster for assessment and relief, but also the ongoing difficulties of many member States in accessing all forms of spatial data, such as GIS, remote sensing and land administration for disaster management. The conference also recognized the importance of the integration of fundamental data with other spatial data, including hazard and exposure data sets in support of disaster mitigation and reduction, the power of spatial tools in integrating various data from many sources and multiple formats, and that the discovery, access, integration and delivery of geospatial data can become much easier with enhanced interoperability.

Further, every country should have access to the 'road map' to develop geographic information capacity and capability. This capacity should not just be the provision of fundamental data, but should also contribute to building capability in areas of disaster management, climate change, economic growth, and sustainable development.

The Global Geographic Information Management community has a real opportunity to spatially enable the Asia-Pacific and the developing nations globally.

Governance: Is global governance relevant and necessary?

- Global governance is very relevant and necessary. It should be one of the major considerations for the GGIM discussions.
- In order to institutionalise the geographic information capability we need to provide a governance framework, but it needs to be a flexible framework. Many nations, National Mapping Organizations (NMOs) and peak spatial bodies/organisations will have substantial governance arrangements around much of what they do in

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geographic information. So we must leverage these arrangements and focus our efforts on those that do not. Arriving at some sort of framework that the member states can relate to will be critical.

- Many challenges remain for the global geographic information community as it works together to remove barriers, particularly in institutional and legal systems in developing countries. We must attempt to overcome these challenges.
- Member states will still need to endorse whatever we come up with, so we will need to consider how we present an appropriate global governance framework to the relevant politicians and policy people. They will need to buy into this and provide the appropriate resources. We need to focus on this, the important messages, and the appropriate language.
- How do we get a global commitment?

Emerging trends in institutional management models

- Although they do vary from nation to nation, many modern NMOs have well developed and mature institutional management models. These are often aligned with commonly adopted governance, economic management and operational business models. If such framework processes and governance do not exist, it is very difficult to adopt such technical processes within the NMOs. Sharing perspectives and best practices in these areas will be immensely beneficial to member States.

Interoperability of systems and data

Data integration and layering

- As experts in our domain, we are seeing significant changes in the 'traditional' functions and operational roles of NMOs, not only within the Asia-Pacific region, but around the globe, driven by the rapid advances in geographic information technology.
- However, some member states are still striving to transform their paper mapping into digital information as a mandatory requirement to achieve spatial enablement, even before contemplating the 'road map' to develop an SDI capacity. The reality is that many nations do not yet have some of the most basic geospatial capacity, most of which are those developing nations that are most vulnerable and in most need, and representing the Asia-Pacific region, I can attest to this situation.
- Therefore, the user requirements and needs of the developing nations must be addressed.

Public rendering of geographic information by the private sector

- I am not entirely sure what this topic is attempting to capture, but I am assuming it relates to the ability of the private sector to provide public mapping (along the lines of Google, Virtual Earth, Bing, etc) to the broader community.
- Technologies such as Google Earth and Virtual Earth have opened new innovative ways of looking at data, mapping and geography, introducing the use of imagery and maps to the masses in a manner that the traditional map has never been able to do. The availability of large scale mapping built from low cost, high quality data is now the rule rather than the exception. The mass-market geomatics providers have leveraged these technologies and established niche markets with location services and the visual experience.
- Geography is now also more mobile, with data and user-generated content at the fingertips of users and being harnessed as social networks are built in a growing consumer environment. Although simple, these services are extremely effective in delivering content to the broader community. This has had an effect on national mapping programs that have tended to tick over on annual cycles, evidenced by a

continued decline in map sales.

- That said, it is important to understand where we all fit in this space. Some recent disasters have shown that there is still a major gap in mapping that cannot yet be filled by some of these public services. For example, providing a Google Earth image with some contextual information indicating disasters does not provide information for decision making. It merely provides a simple overview of where things are and approximately where events are happening (with minimal time stamps). There is no information regarding areas of damage, what infrastructure, buildings or people are exposed or vulnerable, what is being impacted, and what the societal or economic costs are on a temporal scale. These are very real gaps.

Common technical solutions and standards

Capacity building and technology transfer

- The technology solution should not be a major critical issue, especially in the developed nations. The technologies are already here and available. It is not a technology problem, and is not a vendor/provider problem.
- How do we institutionalize common technical solutions and standards? The transfer of technology and standards capacity and capability to the developing nations is an urgent priority. Filling their needs and gaps should be given greater prioritisation.
- Building capacity in member states and addressing the user need is what counts. Inclusive of capacity building is technology transfer.
- How can the global geospatial community respond effectively and timely for those global/regional challenges of disasters and crisis, global climate change, prevention of conflict & terrorism, MDG agenda, food security, etc.
- We should be leveraging our own experiences in managing the multitude of issues, and share the conviction that urgent and sustained actions are needed to reduce them.
- We want to know about not only technical issues, but most importantly, institutional and governance issues that can lead to success or failure of an SDI, taking into consideration the diversity of institutional settings and levels of capacity development in developing countries.
- How can geospatial information and related technologies be readily applied to the contemporary issues and challenges facing the world today? Providing data and technology, although immensely beneficial, is not enough. The infrastructure, policy and governance to enable the information and technology to be leveraged, integrated and delivered appropriately, and in a timely manner are not yet there. For example, it is now common understanding that spatial information and related services are indispensable tools to support disaster mitigation and management. But how consistent is it? There are examples of best practice, but there are also examples of total absence of spatial information.

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26 April 2010