**Committee of Experts on** 

**Global Geospatial Information Management** 

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Coordination of United Nations activities in geospatial information management

#### **Report of the Fourteenth Annual Plenary Meeting of the**

#### United Nations Geographic Information Working Group (UNGIWG)

Background Document Prepared by

United Nations Geographic Information Working Group (UNGIWG)

#### The Secretariat acknowledges with thanks the substantive contribution of

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the authors of this background paper

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<sup>&</sup>lt;sup>1</sup> The designations used and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. The term "country" as used in this publication also refers, as appropriate, to territories and areas.





# UNITED NATIONS GEOGRAPHIC INFORMATION WORKING GROUP

### **Report of the Fourteenth Annual Plenary Meeting**

New York, USA. 14-16 May 2014

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The views expressed in this document are those of the authors and of the membership of UNGIWG, and do not necessarily reflect the views of the United Nations and its Secretariat.

**Group Photo of UNGIWG-14 Participants** 



#### Photo of the Opening Session



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# Resolution by the 14<sup>th</sup> Plenary Meeting of the United Nations Geographic Information Working Group

# The participants of the 14<sup>th</sup> Plenary Meeting of the United Nations Geographic Information Working Group held in New York, USA from 14 to 16 May 2014;

*Extend* their appreciation to the co-chairs (UNDSS and UNOOSA) for the work carried out since taking over the co-chairmanship in February 2013 and also for the organization of the 14<sup>th</sup> UNGIWG Plenary Meeting.

*Agree* to collaborate closely with the United Nations Global Geospatial Information Management (UN-GGIM) secretariat to foster increased geospatial data access and interoperability.

*Agree* to continue implementation of a United Nations Spatial Data Initiative (UNSDI) to foster collaboration and geospatial data sharing within the UN by applying the key principles of spatial data infrastructure development within the UN system.

*Agree* that two Special Interest Groups (SIGs): Core Datasets and Remote Sensing will continue to be maintained and remain active, addressing a number of action points identified at this Plenary.

Agree that UNSDI will from now on refer to the United Nations Spatial Data Initiative.

*Agree* to further build the collaborative relationship with UN-GGIM. As an initial collaborative effort, UNGIWG secretariat will prepare a report on UNGIWG activities and submit it together with this Plenary Report to UNGGIM for consideration at its upcoming August meeting in New York.

*Request* to clarify with OICT the UNSDI trust fund expenditures to date and the status of funds still available.

New York, 16 May 2014

## 1. Executive Summary

The United Nations Geographic Information Working Group (UNGIWG) held its 14th annual plenary meeting from 14 to 16 May 2014 at the United Nations Headquarters in New York, USA. The meeting was organized by the United Nations Department of Safety and Security (UNDSS) and the United Nations Office for Outer Space Affairs (UNOOSA).

Fifty-seven (57) geospatial information experts participated in the meeting, representing United Nations Departments, Offices and Agencies, partner governmental authorities, academia, as well as public and private sector observer organizations from around the World.

On 14th May morning, a half-day of open informal session as a joint session with UN-Space was organized with the aim to promote dialogue among Member States, UN entities and other stakeholders on use of space technology and its various applications in the context of the sustainable development agenda.

The first two days of the Plenary then witnessed a number of open sessions during which updates and their respective activities were presented by UNGIWG members. Various innovative projects and efforts by the UN agencies were brought forward through presentations delivered.

During the closed (UN-internal) session that took place on the second day of the plenary, the secretariat of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) presented the UN-GGIM achievements, activities and their perspective on collaboration with UNGIWG. The following discussion explored ways of linking up for UNGIWG and its members for better collaboration and coordination with UN-GGIM.

The Co-chair of the United Nations Spatial Data Infrastructure (UNSDI) then delivered the status report on the UNSDI project and a discussion on the action plan followed.

Three break-out discussion sessions were organized to identify action items and tasks, addressing Core Datasets, Global Navigation Satellite Systems (GNSS) and Satellite Data.

At a follow-up discussion session that took place on the third and last day of the Plenary, UNGIWG members deliberated on UN-GGIM collaboration issues, on the UNSDI action plan, and on some other pending issues.

After the discussion, a number of informative sessions were organized and UNGIWG partners presented their work as well as recommendations for UNGIWG.

The plenary agreed to focus on the following UNGIWG-14 outcomes:

- Continuing the UNSDI effort and carrying it out through a dedicated Task Group
- Building a close collaborative relationship with UNGGIM

## 2. Welcome Statements and UNGIWG-14 Opening Session

On 14th May 2014, Mr. Kevin Kennedy, Under Secretary General of the United Nations Department of Safety and Security (DSS) inaugurated the 14<sup>th</sup> UNGIWG meeting with an opening statement welcoming all participants to New York.

This opening statement was followed by additional welcoming words by Mr. Stefan Schweinfest, Acting Director of the Statistics Division of the United Nations Department of Economic and Social Affairs, and by Mr. Andre Dehondt of DSS in his capacity of UNGIWG Co-Chair.

## 3. Secretariat report on UNGIWG activities since UNGIWG 13

Following the introductory notes, Mr. Dehondt provided a brief overview of the activities and accomplishments of the UNGIWG Secretariat from 1 May 2013 to 13 May 2014. The report covered the following Secretariat activities:

- Attending the Meeting on Global High Resolution DEM for UN needs hosted by ITU/UNOOSA in Geneva
- Organized the teleconferences of the UNSDI Steering Committee
- Organized the election of SC members and UNSDI co-chairs
- Discussed with HLCP and CEB on the UNSDI CoE and funding proposal in March 2013
- Communication to CEB following request for information on the geo-spatial resources within UN system in April 2014
- Coordinated to attend the Chengdu Forum on UN-GGIM in April 2013, postponed after the major earthquake
- Prepared and conducted a survey for UNGIWG members for the future action items May 2013
- Presented UNGIWG/UNSDI at the 3<sup>rd</sup> session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) in Cambridge, July 2013
- Communicated with OICT for the status of the UNSDI trust fund
- Organized the fund pooling for the UNGIWG OCG membership renewal, interaction with OGC
- Interviewed the shortlisted candidates for the UNSDI Coordinator temporary position and provided a recommendation to OICT in 2013
- Submitted a letter on behalf of UNGIWG to NGA to request the full release of the SRTM 30m DEM data, in September 2013
- Presented UNGIWG/UNSDI at Re GSDI 14 and Africa GIS Conference hosted by UNECA in Addis Ababa, November 2013
- Provided inputs on the ICA report on the Map Use in the United Nations system in January 2014
- Provided inputs on the Report of the Secretary-General on the Coordination of Space-related Activities within the United Nations system, in January 2014

- Attended on invitation UN-GGIM Secretariat meetings to discuss collaboration between UN-GGIM and UNGIWG, in 2014
- Organized UNGIWG 14th Plenary Meeting in May 2014

## 4. Discussion and approval of Plenary Agenda

Following the Secretariat report and updates, Mr. Dehondt proceeded to read out and discuss the draft Plenary Agenda for the upcoming days, and answered some inquires about the agenda. Some additional suggestions were accepted and the agenda was fully endorsed by the participants.

## 5. Discussion on the collaboration with UN-Space

Mr. Niklas Hedman, Chief of Committee, Policy and Legal Affairs Section at the United Nations Office for Outer Space Affairs lead the discussion on the collaboration between UN-Space and UNGIWG. The meeting acknowledged the possible synergies between two inter-agency coordination mechanisms and examined the benefits of having the UN-Space and UNGIWG joint meetings. The Plenary agreed that in order to promote better coordination among UN entities, next year's session could again be held in conjunction with a meeting of the UNGIWG Plenary.

It was also agreed that further clarification of the function of UN-Space is needed among UNGIWG membership, as a number of UNGIWG 14 participants did not attend the UN-Space meeting on 13th May, possibly given lack of clarity about who and how can attend the Inter-Agency Meeting on behalf of the various UN system organizations. This could be further clarified by the UN-Space secretariat well in advance of the next meetings.

## 6. Discussion on the collaboration with UN-GGIM

Mr. Gregory Scott, Inter-Regional Adviser of the United Nations Global Geospatial Information Management secretariat briefed on the history of the UN-GGIM initiative, on its current activities and on a number of issues to be considered regarding the collaboration between UN-GGIM and UNGIWG.

The UN-GGIM presentation was very well received by the Plenary whose participants agreed that close collaboration with UN-GGIM is essential to also achieving UNGIWG's goals. The UNGIWG secretariat agreed to provide inputs and a report as a contribution to the documentation prepared by UN-GGIM Secretariat for the Committee of Experts on the United Nations Committee of Experts on Global Geospatial Information Management in New York in August 2014.

The Plenary also agreed on the establishment of a regular reporting process from UNGIWG to UN-GGIM, including on identified needs, requirements where Member States could support or help. The UNGIWG Secretariat agreed to prepare a report for the UN-GGIM by 25 June 2014 and attach the UNGIWG report of the 14<sup>th</sup> Annual Plenary meeting as a background report for the upcoming UN-GGIM meeting. UN-GGIM secretariat will send a template draft on the expected report to UNGIWG secretariat and also suggested follow up meeting(s) as needed. The Plenary then agreed to form a Task Group to produce the needed material and draft the report to UN-GGIM, and to do it in a consultative way: DSS, UNECA and UNOOSA volunteered for the Task Group.

In addition, the UN-GGIM secretariat requested representation of UNGIWG at the UN-GGIM meeting referred to above in New York in August, 2014.

## 7. Discussion on the UNSDI and future plans

Mr. Dehondt briefed on the history and the current status of the UNSDI project. The briefing covered the following issues:

- Status of UNSDI Steering Committee as it reaches the end of its first term
- UNSDI governance mechanism in the absence of the proposed Center of Excellence (CoE4UNSDI)
- Rethinking of the current approach which had an emphasis on the CoE4UNSDI
- Concerns about the CoE concept sustainability with too much dependence on extra-budgetary financing
- Status of the UNSDI Trust Fund and the recruitment on a temporary basis of a Senior Programme Officer as a UNSDI coordinator
- Clarification on possible future direction

The plenary discussed the above and agreed on a number of actions.

The meeting participants acknowledged that the current approach to UNSDI has not met the expectations due to funding and implementation constraints and shortfalls. Given the close collaboration established with UN-GGIM it is natural to focus on interoperability from an inter-agency perspective, to mirror the activities of UN-GGIM at the inter-governmental level.

The meeting participants agreed to realign the UNSDI effort and promote it more under the UNGIWG umbrella, initiating a unsdi.ungiwg.org webpage to link to all the existing individual UN agency SDIs and similar resources as a first step. The secretariat will coordinate the creation of a UNSDI homepage which will catalog the open standards promulgated or adopted by UNGIWG and list geospatial web services provided by the membership. To support establishing the UNSDI webpage, OCHA agreed to share the platform for data sharing they are using and suggested to also revisit the past efforts in data cataloging.

The meeting participants stressed the need to rebrand UNSDI and suggested therefore a UNSDI name change. UNSDI will henceforward refer to the **United Nations Spatial Data Initiative** to indicate a

change of focus on data sharing and collaboration so that tangible and concrete outcomes can be achieved, even if in small steps.

The Plenary also agreed on having a lighter organizational footprint. The recent unsuccessful attempts to hold elections for the UNSDI Steering Committee and for the co-chair functions resulted in the decision to move away from having a Steering Committee and replace that by two Task Group leaders (Mr. Rob Gray of UNECA and Mr. Andre Dehondt of UNDSS) that will continue to address the UNSDI issues in the context of a UNGIWG Task Group.

The identified project leaders of the CoE4UNSDI effort are requested to provide final reports on any related activities to date. The Plenary agreed on the need to follow-up with OICT on the latest status of the UNSDI Trust Fund.

#### 8. Break out session discussions

#### 8.1. Core Datasets Discussion

The Core Datasets discussion was moderated by Ms. Ayako Kagawa of the Cartographic Section, Department of Field Support (UNDFS). Ms. Kagawa briefed on the history of the Core Datasets Task Group, then Special Interest Group (SIG), as it functioned until 2009. The purpose of the break-out discussion was to identify the unmet demands and needs for the core datasets and to review status of the core datasets within the UN system, including specific SALB-related issues, as well as to address any international boundary dataset update issues.

Main concerns and issues are the lack of sharing mechanism, inconsistent scale and accuracy, lack of metadata, sustainability and maintenance of the existing datasets. The differences of requirements and standards between authoritative datasets and ad-hoc operational datasets were discussed. The meeting did not conclude whether UNGIWG should revitalize the Core Datasets SIG. No agreement was reached in identifying volunteers to continue work on these issues. Mr. Rob Gray (UNECA) and Ms. Kristina Mackinnon (OCHA), agreed to form a team that would examine the requirements for data inventory aspects and establishment of a new work plan. Mr. Robert Sandev (OLA) and Ms. Ayako Kagawa (UNDFS) agreed to provide advice as required. The UNGIWG secretariat will send messages to the membership requesting additional volunteers.

#### 8.2. GNSS Discussion

Ms. Sharafat Gadimova, ICG Executive Secretariat, lead this breakout session. Ms. Gadimova briefed on the history of the International Committee on Global Navigation Satellite Systems (ICG). She then also mentioned she will be happy to provide further information on the developments in GNSS to the UNGIWG community. If there will be enough interest within the UNGIWG community, Ms. Gadimova suggested to re-establish a Task Group or SIG within UNGIWG to address Gobal Navigation issues. UNGIWG agreed to provide user requirements collected from among UNGIWG members to the ICG Secretariat for the consideration of the ICG Working Groups. CTBTO stated that their inspections

tracking system is operational and that they are willing and able to share its documentation with the UNGIWG members if requested.

#### 8.3. Remote Sensing / Satellite Data Discussion

Ms. Lorant Czaran of UNOOSA moderated the discussion. The participants agreed to continue with the Remote Sensing SIG but not to operate via a separate mailing list. All communication and information should be shared with all UNGIWG members. UNOOSA agreed to be the moderator for this SIG.

The group agreed to work internally and with satellite imagery providers (commercial or government agencies) to identify new ways of imagery access such as image web- and subscription services for both the archived imagery and for new collections.

The participants acknowledged that the access to the imagery should as much as possible be shared among all interested entities within the UN system and even with key external partners if possible, and that license arrangements should be negotiated with that idea in mind; pooled funds or other resources could be used to cover the necessary costs. Digital Globe, as a commercial imagery provider and present during the discussions, agreed to work closely with UNGIWG in finding the right funding and sharing approaches, to offer further services testing arrangements to UNGIWG, and to open up full access to its data catalogues. UNOOSA will continue to discuss with Digital Globe and others in this respect, while keeping the full membership updated.

The participants also acknowledged that there is a first priority to quantify the interest and needs internally, as well as to rally senior management support within the UN for any joint approaches. The meeting suggested to look into the current and past imagery purchases within the UN and to share the image footprints as metadata for all UNGIWG to make any available imagery searchable. On this topic, the participants acknowledged the imagery data cataloging and footprint sharing efforts already made or underway in DFS/Cartographic Section mainly for the UN Peace Keeping operation, and with UNITAR/UNOSAT. The importance of following OGC standards by all imagery providers in sharing imagery metadata and exposing image catalogues in an inter-operable way was also stressed during the discussions.

In addition, it was suggested to consider a pilot project of 6 to 12 months to evaluate the benefits of imagery access services (e.g. with Digital Globe) as a new imagery "consumption" approach while UNGIWG is assessing all the possible financial models and options for a longer term licensing or joint commitment.

## 9. Presentations by UNGIWG members

#### 9.1. International Committee on Global Navigation Satellite Systems (GNSS) Ms. Sharaftat Gadimova, ICG Executive Secretariat, presented the history and the current activities of ICG on Global Navigation Satellite Systems. Ms. Gadimova explained the four Working Groups in ICG and current recommendations from each group:

- Working Group A: Compatibility and Interoperability
- Working Group B: Enhancement of GNSS Service Performance
- Working Group C: Information Dissemination and capacity Building
- Working Group D: Reference Frame, Timing and Applications

Ms. Gadimova highlighted the importance of information dissemination between GNSS users and providers and the importance of standardization and interoperability of GNSS technologies especially in responding in natural disasters.

#### (http://ungiwg.org/sites/default/files/documents/UNGIWG14\_ICG\_GNSS.pdf)

#### 9.2. World Bank Mapping for Results Initiative and Open Aid Partnership

Ms. Julia Zhu, a Geospatial specialist in the Innovation Labs of the World Bank presented the Mapping for Result initiative for geocoding and visualizing the all active World Bank projects at the sub national level. Ms. Zhu explained M4R methodology for locating projects, geocoding the project actives and integrating geocoding into the World Bank operations. Ms. Zhu emphasized the importance of capturing the beneficiary feedbacks in evaluating the project impact and effectiveness.

Ms. Qiyang Xu, a Geospatial specialist in the Innovation Labs of the World Bank presented the Open Aid Partnership (OAP) project. Ms. Xu explained OAP aims to increase aid transparency and effectiveness of the donor-financed programs by providing tools to collect and visualizing the accurate location of projects and programs. OAP is building and strengthening capacities of civil society, the media and policy makers within the partner countries by providing a tool to monitor the projects and by providing a tool to access information and to give feedback. Ms. Xu emphasized the importance of data transparency in the development projects.

(http://ungiwg.org/sites/default/files/documents/UNGIWG14\_WorldBank\_reduced.pdf)

#### 9.3. One UN GIS for Somalia

Mr. Rob Gray, Chief of GIS and Sectorial Statistics Section in the United Nations Economic Commission of Africa (UNECA) explained his experience in Somalia and the importance of the standardized and organized approach in the system building for the geo spatial information management. Mr. Gray demonstrated the importance of shared GIS systems by showing the various naming options and location names used by different UN agencies for a single location within Somalia. Mr. Gray illustrated the foreseeable safety concerns and potential for errors in decision making caused by multiple names variants and poor precision. Mr. Gray urged the UNGIWG community in formalizing data sharing and recognizing the importance of the federated approach for a "One GIS" system for the UN.

#### (http://ungiwg.org/sites/default/files/documents/UNGIWG14\_UNECA\_One\_UN\_GIS.pdf)

#### 9.4. Humanitarian Data Exchange (HDX)

Ms. Sarah Telford, project manager for the Humanitarian Data Exchange (HDX) project at the United Nations Office for the Coordination of Humanitarian Affairs presented the HDX project. Ms. Telford

explained that the HDX project aims to make humanitarian data easy to find and use for analysis. HDX team is working on three elements that will eventually combine into an integrated data platform: a HDX dataset repository, HDX analytics and data standards.

- The HDX Dataset Repository, where data providers can upload their raw data spreadsheets for others to find and use.
- HDX Analytics, a refined database of high-value data that can be compared across countries and crises, with web-based tools for analysis and visualization.
- Standards to help share humanitarian data through the use of a consensus Humanitarian Exchange Language.

Ms. Telford explained the phased approach in developing the functional platform and scaling up to for all UNOCHA offices. Ms. Telford emphasized the importance of data standards for data sharing and data analysis.

(http://ungiwg.org/sites/default/files/documents/UNGIWG14 UNOCHA HDX reduced.pdf)

#### 9.5. COD-FOD Registry

Ms. Kristina Mackinnon, a programme officer in the Information Management Field Information Services of the United Nations Office for the Coordination of Humanitarian Affairs presented the Common Operational Datasets & Fundamental Operational Datasets (COD & FOD Repository). Ms. Mackinnon explained the process of COD creation and the scope of CODs including administrative boundaries, populated places, transportation network, hydrology and hypsography. CODs includes statistical data such as population and humanitarian profile which can be linked to the geographic datasets. Ms. Mackinnon emphasized the importance of common operational baseline datasets in the UN operations and how COD & FOD can be useful in terms of data preparedness, data standardization and harmonization, and identification of missing data. The main challenges are data quality control, openness of data, lack of data, boundary alignment issue and feedback loop for externally processed datasets. She concluded her presentation by asking UNGIWG to support data sharing, to provide feedback and to support standards.

(http://ungiwg.org/sites/default/files/documents/UNGIWG14\_UNOCHA\_CODFODRegistry.pdf)

#### 9.6. UNDSS GIS Services

Mr. Hwa Saup Lee, a Geographic Information Management Officer in the Crisis Management and Information Support Section of the Department of Safety and Security (DSS) presented the GIS Systems and services within DSS. Mr. Lee explained the sets of geographic data that DSS is maintaining and how various information tools in the United Nations Security Manager Information Network (UNSMIN) provide the security related information to the UN security professionals, UN staff members and the UN security managers. Mr. Lee showed some of the data visualization examples such as UN security incidents, UN premises location and the security level. Mr. Lee emphasized the importance of geographic data in the security operation and assessment. In conclusion, Mr. Lee stated DSS is willing to share those data as web services with other agencies.

#### (http://ungiwg.org/sites/default/files/documents/UNGIWG14\_UNDSS\_GIS\_Services\_reduced.pdf)

#### 9.7. UNARMS - Digital Preservation and Continuity

Ms. Yujin Pian, a Information Management Officer in the United Nations Archives and Records Management Section (UNARMS) presented the ARMS roles and the UN digital preservation and continuity initiative. Ms. Pian explained that the common challenges for digital continuity are media fragility, technology obsolescence and loss of integrity, however GIS data gives special challenges such as proprietary GIS systems, various data format, the importance of underlying analysis data, lack of metadata, and various standards. ARMS has worked on the requirements for digital record keeping systems, metadata standard, and standard on record keeping requirements for digitization. ARMS goals are to raise awareness of all stakeholders and to establish the UN Digital Continuity Framework. Ms. Pian asked UNGIWG to share expertise and knowledge on GIS data preservation and suggested attention to metadata, retention policies, and standard for sound archiving of data.

(http://ungiwg.org/sites/default/files/documents/UNGIWG14\_UNARMS\_DigitalPreservationContinuity.pdf)

#### 9.8. UNITAR-UNOSAT Statement

A statement was delivered by UNICEF on behalf of UNITAR/UNOSAT highlighting UNITAR's current commitments and activities. This statement was made in lieu of the UNITAR participation at the Plenary. On the onset, UNITAR stated their willingness to support the UNSDI process without being able to take a leading role, and to contribute towards the UNGIWG OGC membership.

UNITAR also noted its own bidding process for satellite imagery purchase, and offered that to the entire UN system as needed. It also highlighted UNOSAT's focal point role in the Global Disaster Alert and Coordination System (GDACS), and the development of the GDACS Satellite Mapping Coordination system.

UNITAR/UNOSAT is also ready to continue sharing satellite imagery with other organizations, as well as derived vectror products when applicable and as licenses allow, and to continue triggering the International Charter mechanism for UN agencies when needed.

Finally, it also highlighted its efforts to set up an ArcGIS Online platform for further data sharing, its crowd-sourcing and data collection initiatives, the recent MoU with the Canadian company UrtheCast for accessing HD video from the International Space Station for humanitarian purposes, as well as its capacity building efforts in East Africa (with IGAD) and in Asia (with ESCAP) or its increased collaboration with the UN-SPIDER Programme implemented by OOSA.

## 10. Presentation by UNGIWG partners

#### 10.1. Open Geospatial Consortium

Mr. Mark Reichardt, the President and CEO of Open Geospatial Consortium (OGC) gave a presentation on the importance of open geospatial standards and the benefits of participation in the process. Mr. Reichardt emphasized that the geospatial interoperability is essential to address social, environmental and economic issues. Mr. Reichardt concluded by describing OGC as the facilitator of a global and highly social process to identify and address important geospatial interoperability issues and challenges in our interdependent world. Promoting interoperability indeed reduces costs, increases flexibility in support of situational awareness, analysis and decision making.

He recommended UNGIWG to promote UN specific scenarios and use cases for consideration in the future OGC interoperability testbed and pilot project context. He stated that all UNGIWG members should leverage the fact that as UNGIWG is a Principal Member of OGC; all UN staff is eligible to participate in OGC based on the unique arrangement between UNGIWG and OGC to influence the requirements and direction of OGC standards and best practices.

In following his presentation, financing the OGC membership for UNGIWG was discussed and several UNGIWG members stated their interest in contributing to the annual membership fee. UNOOSA informed that as part of in-kind contributions to OGC (that resulted in the highly-reduced membership fee), DPI, UNOOSA and UNEP have hosted already several OGC Plenaries on UN premises, and the most recent one is planned for mid-June at WMO in Geneva.

#### (http://ungiwg.org/sites/default/files/documents/UNGIWG14\_OGC\_Presentation\_reduced.pdf)

#### 10.2. ESRI

Ms. Carmelle Terborgh and Mr. Salim Sawaya presented the various new developments with the ArcGIS platform. Ms. Terborgh explained ArcGIS as a comprehensive web GIS platform which makes data integration, data sharing and access easier. She stated that ESRI is adding more contents and web tools on ArcGIS platform such as higher resolution imagery and geo processing tools. ESRI is also actively engaging with the open source community.

Mr. Sawaya stated that ESRI wants to stay engaged with UN and as a part of the effort, ESRI is organizing the GIS for the UN and International Community Regional Summit. Esri also committed to revive the past webinar series for presenting latest Esri technologies to UN staff.

#### (http://ungiwg.org/sites/default/files/documents/UNGIWG14\_ESRI\_reduced\_print2.pdf)

#### 10.3. Digital Globe

Mr. Kumar Navulur from Digital Globe presented the technology trend and capacities of very high resolution EO data. He stated that the commercial remote sensing industry is experiencing the fourth era in terms of technology focus and development: increasing spatial resolution, more spectral bands,

increasing positional accuracy, near real time image processing and the automatic information extraction and analysis are just a few of the major gains recently. Several examples were presented such as conflict impact analysis, crop production prediction, damage assessments, 3D models and viewshed analysis.

#### (http://ungiwg.org/sites/default/files/documents/UNGIWG14\_DigitalGlobe\_Future\_of\_VeryHighResoluti onEOData.pdf)

#### 10.4. Google

Ms. Wei Luo from Google presented the Google Map Gallery and platform. She addressed the issues in the discoverability of geospatial data and map products and presented Google's approach to tackle this issue. Her presentation covered Google Map Engine and Google Map Gallery as a scalable platform which make data more accessible and more discoverable.

(http://ungiwg.org/sites/default/files/UNGIWG14 Google MapDiscovery Scale reduced.pdf)

#### 10.5. Geocortex Essentials

Mr. Steve Maddison and Mr. George Davis from Latitude Geographics presented the Spatial Application Infrastructure (SAI) as a platform for building web mapping applications. The presentation covered the common challenges facing by many GIS professionals in developing and maintaining web based GIS applications such as rapid technology changes, data proliferation and proliferation of platforms. He presented the SAI which provides the ability to build multiple, standardized applications with minimum custom code and workflow centric.

(http://ungiwg.org/sites/default/files/documents/UNGIWG14\_Geocortex\_reduced.pdf)

#### 10.6. Center for International Earth Science Information Network (CIESIN)

Mr. Kytt MacManus and Mr. Alex de Sherbinin presented the overview of recent CIESIN spatial data activities. The presentation covered the background information of CIESIN and the previous and the current projects such as Africa Soil Information Service, Global Population/Environment data network, Global Exposure Database for the Global Earthquake Model (GED4GEM), Global Environmental & Socioeconomic datasets in NASA Socioeconomic Data and Applications Center (SEDAC), Global Roads Open Access Data Set (gROADS), Global Rural-Urban Mapping Project, and Gridded Population of the World (GPW).

CIESIN is investing in linking population data to urban footprints to better understand the interplay of population dynamics and urban expansion. In conclusion, CIESIN has an interest in distributing more global infrastructure data including power grids, reservoirs, dam, building footprint and type, etc...

#### (http://ungiwg.org/sites/default/files/documents/UNGIWG14\_CIESIN\_reduced.pdf)

#### 10.7. Harper Collins

Mr. Jonathan Allen from Collins Bartholomew introduced the map data products and solutions by Collins Bartholomew. His presentation covered the brief history of Collins Bartholomew as the creator and publisher of the Times World Atlas.

Collins Bartholomew provides a wide range of digital map data products in industry standard formats and focuses on delivering authoritative and up-to-date content such as international boundaries, administrative boundaries, disputed territories, geo-referenced gazetteers, and geocoded geopolitical news. He stressed the importance of the authoritative and continuously maintained accurate data.

Collins Bartholomew is ready to work with the UN agencies in creative licensing arrangements and shared data access options for their data.

(http://ungiwg.org/sites/default/files/documents/UNGIWG14\_CollinsBartholomew\_reduced.pdf)

# Annex I: Meeting Agenda

#### UNGIWG-14 Agenda

	Conference Room 3 (1" Basement, Conference Building)		
08:00 - 12:00	Registration		
09:30 - 11:00	:30 – 11:00 Open Informal Session with Member State participation - UN-Space and UNGIWG: Use of space technology within the UN System		
11:00 - 11:30	Coffee break		
11:30 - 12:30	0 – 12:30 Open Informal Session with Member State participation (cont.) - UN-Space and UNG Use of space technology within the UN System		
12:30 - 14:00 Lunch			
the second second second	Conference Room 9 (1" Basement, Conference Building)		
14:00 - 15:00	Closed joint session - UN-Space and UNGIWG: discussion on coordination of space-related activities within the UN system; EO data, satellite imagery sharing efforts		
15:00 – 15:30 Official Group Photo and Coffee break			
15:30 - 16:30	Open session:     Welcome statements by UNGIWG Co-chairs     Keynote presentations by UNGIWG-14 hosts     Overview and adoption of the Meeting agenda     Secretariat summary activity report, brief review of membership priorities survey		
16:30 - 18:00	Open session: Presentations by UNGIWG member organizations - UNOOSA: Global Navigation Satellite Systems (GNSS) - World Bank: Open Aid Partnership, Geocoding Tool, geospatial development - UNECA: One UN GIS for Somalia		

Thursday, 15 Ma	y. 2014				
	Conference Room	9 (1 <sup>st</sup> Basement, Conference Building)			
09:00 - 10:15	Open session: UNGGIM Briefing and Discussion on UNGIWG and UNGGIM linkages; possible joint efforts; Report outline				
10:15 - 10:45	Closed session: UNGIWG Report to UNGGIM – drafting team setup				
10:45 - 11:00	Coffee Break				
11:00 - 12:30	Closed session: UNSDI Project Status Update and Governance; Future Action Plan → possibility to add parallel session to continue discussion on Satellite Imagery if needed				
12:30 - 14:00	Lunch				
14:00 - 15:30	Open session: Presentations by UNGIWG member organizations - OCHA: Humanitarian Data Exchange (HDX) - OCHA: COD-FOD Registry - UNDSS: GIS services from DSS - DM-ARMS: Digital Preservation and Continuity				
15:40 - 17:00	Closed (optional) session: UNGIWG Task Group Break-out, Special Interest Groups review				
	Conference Room 9 (1" Basement, Conference Building)	S-2726 FC (27 <sup>th</sup> floor, Secretariat Building)	S-2722 BR (27 <sup>th</sup> floor, Secretariat Building)		
	Core Datasets needs: SALB / International Boundaries / High Resolution Global DEM	Satellite Imagery: licensing solutions, data sharing, joint access to commercial services	Global Navigation Satellite Systems (GNSS)		
17:00 - 17:20	Coffee Break				
17:20 - 18:00	Open session: UNGIWG Task Groups Break-out reporting and Discussion; Strategy issues				
18:00 - 20:00	UNGIWG-14 Social - Night at the North Delegates' Lounge (2 <sup>nd</sup> floor, Conference Building); All welcome! (no host)				

	Conference Room 9 (1" Basement, Conference Building)
09:00 - 10:00	Open session: Summary of Thursday's discussions and follow up discussion;         - Review of WG priorities identified         - Plenary Discussion on challenges, actions, short/medium-term strategy for the Working Group         - Aspects of collaboration with GGIM         - Means to advance towards a UNSDI         - Other topics as requested by UNGIWG members
10:00 - 10:30	Coffee Break
10:30 - 12:00	Open session: Presentations and interventions by UNGIWG partners - Open Geospatial Consortium - ESRI: What's new in ArcGIS: opportunities with WebGIS - Digital Globe: The Future of Very High Resolution EO Data; Possibilities, Solutions to consider (mini-seminar)
12:00 - 12:30	Open: UN Map Library Tour
12:30 - 14:00	Lunch
14:00 - 16:00	Open session: Presentations and interventions by UNGIWG partners: - Google - Geocortex Essentials - CIESIN (Columbia University) - HarperCollins
16:00 - 17:00	Open session: Plenary Conclusions; Summary of Discussions; Immediate Actions, Follow-up; Plenary Report (and past plenary reporting); Meeting Closing Remarks by Co-chairs

Note: for the breakout sessions, these rooms are reserved, in the Conference Building and the Secretariat Building.

- Conference Room A (Conference Building)
- S-2726 FC (Flex Conference room on the 27th floor of the Secretariat Building)
- S-2722BR (Board Room on the 27<sup>th</sup> floor of the Secretariat Building)

Other breakout sessions can be accommodated on demand; this agenda is flexible and subject to change or additions based on any suggestions by UNGIWG members.



# Annex II: List of Participants

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## Annex III: List of Acronyms

CEB: UN System Chief Executives Board CIESIN: Centre for International Earth Science Information Network, Columbia University COD-FOD: Common Operational Datasets & Fundamental Operational Datasets CTBTO: Comprehensive Nuclear-Test-Ban Treaty Organization ESRI: Environmental Systems Research Institute GDACS: Global Disaster Alert and Coordination System GED4GEM: Global Exposure Database for the Global Earthquake Model **GIS:** Geographic Information System **GNSS:** Global Navigation Satellite Systems GPW: Gridded Population of the World gROADS: Global Roads Open Access Data Set GSDI: Global Spatial Data Infrastructure (Association) HDX: Humanitarian Data Exchange IAEA: International Atomic Energy Agency ICA: International Cartographic Association ICG: International Committee on Global Navigation Satellite Systems ITU: International Telecommunication Union MoU: Memorandum of Understanding NGA: (U.S.) National Geospatial Agency NGO: Non-Governmental Organization OAP: Open Aid Partnership OGC: Open Geospatial Consortium SAI: Spatial Application Infrastructure SALB: Second Administrative Level Boundaries SDI: Spatial Data Infrastructure SIG: Special Interest Group TG: Task Group ToR: Terms of Reference **UN: United Nations** UNDSS: United Nations Department of Safety and Security UNDFS/UNCS: United Nations Department of Field Support/ Cartographic Section UNDM: UNDM/ARMS: United Nations Department of Management/ Archives and Records Management Section UNDPKO: United Nations Department of Peace Keeping Operations UNDP: United Nations Development Programme UNECA: United Nations Economic Commission for Africa **UNEP: United Nations Environment Programme** UNESCAP: United Nations Economic and Social Commission for Asia and the Pacific UNEP/ DEWA: United Nations Environment Programme / Division of Early Warning and Assessment UNEP- GRID: United Nations Environment Programme - Global Resource Information Database UNFCCC: United Nations Framework Convention on Climate Change UN-GGIM: United Nations Committee of Experts on Global Geospatial Information Management UNGIWG: United Nations Geographic Information Working Group UNHCR: United Nations High Commissioner for Refugees UNICEF: The United Nations Children's Fund UNITAR: United Nations Institute for Training and Research

UNOCHA: United Nations Office for the Coordination of Humanitarian Affairs UNODC: United Nations Office on Drugs and Crime UNOG: United Nations Office in Geneva UNOICT: United Nations Office of Information and Communication Technology UNOLA: United Nations Office of Legal Affairs UNOOSA: United Nations Office for Outer Space Affairs **UNOPS: United Nations Office for Project Services** UNITAR/UNOSAT: UNITAR Operational Satellite Applications Programme UNOV: United Nations Office at Vienna UNOWA: United Nations Office for West Africa USAID: United States Agency for International Development UNSD: United Nations Statistics Division UNSDI: United Nations Spatial Data Infrastructure UNSDI: United Nations Spatial Data Initiative UNSMIN: United Nations Security Manager Information Network UN-SPIDER: United Nations Platform for Space-based Information for Disaster Management and Emergency Response WG: Working Group