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### **Tenth United Nations Conference on the Standardization of Geographical Names**

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Item 11 of the provisional agenda\*

**Toponymic data files and gazetteers**

### Report of the Working Group on Toponymic Data Files and Gazetteers 2007-2012\*\*

Submitted by the Working Group on Toponymic Data Files and Gazetteers \*\*

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## **I. Scope of Work**

In order to address UN resolutions and UN data needs, this Working Group on Toponymic Data Files and Gazetteers addresses various issues of toponymic data processing, including the creation, maintenance and outputs of toponymic data files (including gazetteer production) and aspects of toponymic data exchange formats and standards. Issues of providing geographical names information within national and international spatial data infrastructures (SDIs) through web (gazetteer) services and multipurpose toponymic database solutions in the context of SDIs are becoming more and more important.

## **II. Work plan**

After the 25<sup>th</sup> session of UNGEGN in 2009, the Working Group established the following outline of objectives:

- maintain liaison with international standardization bodies like the Unicode Consortium regarding digital text encoding in the context of geographical names, the International Organization for Standardization (ISO) and the Open Geospatial Consortium (OGC) with reference to the development of exchange standards for toponymic information and to web (gazetteer) services for the provision of toponymic information through the Internet;
- maintain liaison with the United Nations Geographic Information Working Group (UNGIWG) in relation to UN developments and requirements;
- promote and support the geographical names database of the United Nations Group of Experts on Geographical Names (UNGEGN database);
- promote, complement and support the UNECA “Africa GeoNyms database/gazetteer” initiative;
- promote and provide consultancy and technical advice to national standardization programs and to toponymic training courses including the development of multipurpose toponymic database solutions in the context of spatial data infrastructures;
- organize workshops in conjunction with UNGEGN Sessions or UN Conferences, focusing on topics like data modeling, database applications or lessons learned through national and international geographical names programs or projects, and, as required, provide presentations on such topics at the UNGEGN Sessions and UN Conferences;
- recommend content and structure of nationally produced authoritative gazetteers and toponymic data files in particular making use of the Internet.

### III. Activities of the Working Group occurring during 2007 – 2012

#### 1. *Liaison with international standardization bodies (ISO, OGC, Unicode)*

##### Liaison to International Organization for Standardization (ISO/TC 211)

The Convenor is a liaison member of the International Organization for Standardization's Technical Committee 211 Geographic information/Geomatics (ISO/TC 211). A standard of particular relevance to the Working Group is e.g. ISO/DIS 19142 Geographic information - Web feature Service (WFS).

In March 2012 the Working Group provided comments on the European core location vocabulary (ISA programme) through the Project Team (PT) 19160 of the International Organization for Standardization's Technical Committee 211 Geographic information/Geomatics (ISO/TC 211). The broadest European vocabulary is that for location which covers places, addresses, and geographical geometries. The Working Group mainly requested compliance with definitions for geographic names considered in the COMMISSION REGULATION (EU) No 1089/2010 of 23 November 2010 - implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services. These definitions are compliant with those published by UNGEGN.

##### Liaison to Open Geospatial Consortium (OGC)

The Convenor is registered as an observer for the Open Geospatial Consortium Standards Working Group (SWG) for developing a Gazetteer Profile of a WFS. The SWG re-started to be active in 2011. In January 2012 the Working Group contributed to the comments on the Open Geospatial Consortium (OGC) Best Practices Document: Gazetteer Service - Application Profile of the Web Feature Service Candidate Implementation Standard (OGC 11 122r1). Generally, concerns about keeping ISO 19112 in this updated WFS-G (Best Practice) document, and by extension keeping terms like 'LocationInstances', 'geographicIdentifiers' etc, were expressed.

Some of these concerns were raised before e.g. within the EuroGeoNames project<sup>1</sup> as well as - more formally - through the INSPIRE<sup>2</sup> data specification process for geographical names. However, improvements in this OGC approach could be identified too, some of them towards a more feature oriented and understandable concept of modeling places with names as attributes to features in accordance with the European INSPIRE outcome. The OGC Gazetteer Best Practice is available at: <http://www.opengeospatial.org/standards/requests/83>

##### Liaison to Unicode

The Working Group's contacts with the Unicode Consortium had been re-established prior to the 26<sup>th</sup> Session of UNGEGN, and Ken Whistler, co-founder of the Unicode Standard, attended the Session in Vienna. The Session also benefitted from a special presentation on Unicode Transliteration, provided

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1 The EuroGeoNames (EGN) project combines geographical names from the National Mapping and Cadastral Agencies (NMCAs) across Europe to create a unique service and data set. It is now being implemented by EuroGeographics (the European association of NMCAs) and its partners for an increasing number of countries in Europe.

2 The INSPIRE directive aims to create a European Union (EU) spatial data infrastructure. The INSPIRE directive came into force on 15 May 2007 and will be implemented in various stages, with full implementation required by 2019. Further information: <http://www.inspire.jrc.com>

via a videoconference link, by Mark Davis, Unicode President and co-founder. Mrs Burgess, as Unicode Liaison, held a useful lunchtime meeting with Dr Whistler to discuss potential updates to part two (Toponymic data transfer standards and formats) of the 2007 UNGEGN Technical reference manual for the standardization of geographical names. It was acknowledged that this publication was based on data first studied in the mid-1980s and that technological developments had made some of the content rather outdated.

Since the 26<sup>th</sup> UNGEGN session, Unicode has released version 21.0.1 of its Common Locale Data Repository (see <http://cldr.unicode.org/index>) and this year has published Unicode version 6.1.0 with updated Annexes, code charts and Character Database (see <http://www.unicode.org/versions/Unicode6.1.0/>). A review by the Working Group of character encodings required for geographical names, proposed during the 26<sup>th</sup> UNGEGN session, had revealed few gaps in the Unicode standard.

## ***2. Liaison with the UN Geographic Information Working Group (UNGIWG)***

The Convenor participated at the UNGIWG-10 Plenary Meeting (19 - 21 October 2009) in Bonn, Germany and at the UNGIWG-12 Plenary Meeting, 28 to 30 (and 31) March 2012, at the VIC in Vienna (AT). The notes of the Convenor about both UNGIWG plenary meetings are available through the Working Group website: <https://wiki.gdi-de.org/display/wgtdfg/2012-03+12th+UNGIWG+Plenary+Meeting+in+Vienna>

The Center of Excellence for UN Spatial Data Infrastructure (CoE4UNSDI), an initiative being led by the Office of Information and Communication Technology (OICT) of the UN Secretariat (see UNGEGN Bulletin no. 41) and substantially promoted by UNGIWG will set up a gazetteer framework project as an important initial element of the UNSDI. It is of immediate significance to UNGEGN. With the support of UNGEGN, the convenor of the Working Group accepted an invitation to join the Science and Technical Advisory Group (STAG) of the UNSDI Gazetteer Framework Project. The purpose of the STAG is to review the scientific and technical directions taken by the Project Leader and to ensure that technical decisions are compatible with the environments into which they may eventually be delivered. The convenor foresees involving the Working Group with reviews on scientific outputs.

In a broader UN context the Working Group recognized the importance of co-operating with the planned UN initiative on Global Geospatial Information Management (GGIM) being promoted by the UN Statistics Division and Cartography Section. It has been agreed that UNGEGN has different responsibilities and its own mandate must be preserved.

## ***3. Provision of consultancy and technical advice concerning the content and structure for data files and gazetteers***

### UNEGN database

Since 2009 the Working Group reviewed UNGEGN's World Geographical Names Database and contributed to updates and reviews for the UNGEGN website: <http://unstats.un.org/unsd/geoinfo/UNEGN>

## GeoNyms - UN Economic Commission for Africa (UNECA)

Since 2007 the Working Group promoted the UN Economic Commission for Africa (UNECA) initiative at meetings, conferences and toponymic training courses and outlined the provision of a free tool to create names databases, particularly within the context of an African spatial data infrastructure. The software tool GeoNyms has been reviewed by African experts on two workshops (in Botswana and South Africa in 2011). An improved version (GeoNyms 2.0) has been released. African countries such as Madagascar, Botswana, Egypt, Kenya and Ethiopia are now testing the tool and preparing to implement it. The software tool is available for download at: <http://geoinfo.uneca.org/geonyms> . A release note at detailing what has been changed or fixed for the improved version GeoNyms 2.0 is available through: <http://geoinfo.uneca.org/geonyms/v2/release%20note%20Geonyms%202.0.html>  
Toponymic training courses

Through toponymic training courses 2008 in Timișoara (Romania), 2009 in Nairobi (Kenya) and 2010 in Yaoundé (Cameroon) the Working Group facilitated consultancy and gave technical advice for the establishment of multipurpose toponymic database solutions in the context of spatial data infrastructures.

## EuroGeoNames (EGN) Project

In 2008 and 2009 the Working Group convened a meeting in Freising, Germany, in conjunction with workshops conducted by the EGN community. In 2011 a meeting of the Working Group was held in conjunction with the 20<sup>th</sup> Session of the East Central and South-East Europe Division and a EuroGeographics - EGN workshop in Zagreb, Croatia (9-11 February 2011). In 2012 the Working Group contributed to the letter of request from EuroGeographics, the European Association of the National Mapping and Cadastral Agencies (NMCAs), concerning the future of EGN. EuroGeographics is responsible for the project coordination of EGN since 2009. In the letter questions were raised in order to get feedback from UNGEGN to support EGN moving forward. UNGEGN supports and encourages the ongoing development of EGN as a major contribution to access national geographical names datasets, considered by countries as national treasures that should be available for world use. UNGEGN was a registered member of the former "EGN Group of Interest" during the EU-funded period of EGN from 2006 - 2009.

## INSPIRE data specification on geographical names

In 2009 UNGEGN material and expertise contributed to the development of the INSPIRE data specification on geographical names following the participative principle of a consensus building process. The Thematic Working Group (TWG) responsible for the specification development of Geographical names was composed of experts coming from Belgium, Finland, France, Germany, Norway, and Spain - the major part of the TWG being members of UNGEGN. The amending Regulation (EU) No 1089/2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services comprises the content of the data specification for geographical names. The latter is available since 2009: [http://inspire.jrc.ec.europa.eu/documents/Data\\_Specifications/INSPIRE\\_DataSpecification\\_GN\\_v3.0.1.pdf](http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_GN_v3.0.1.pdf)

## International Congress of Onomastic Sciences (ICOS)

Within the XXIV International Congress of Onomastic Sciences (ICOS) in Barcelona (5-9 September 2011), the convener of the Working Group contributed to and chaired sessions of section 10 “Cartography and placenames: New platforms for information management” as well as participated in the roundtable discussion on “Analysis and management of databases and Toponymic/onomastic information”. The conclusions of both events are available through: <https://wiki.gdi.de.org/display/wgtdfg/2011-09+XXIV+International+Congress+of+Onomastic+Sciences+in+Barcelona>

### **4. Meetings & further activities of the Working Group (workshops, conferences, etc.)**

The last Working Group meeting was held within the 26<sup>th</sup> UNGEGN in Vienna. The notes of the meeting are available through the aforementioned Working Group website, too.

#### Workshops in conjunction with UNGEGN Sessions

Within the 26<sup>th</sup> UNGEGN the Working Group contributed to

- The workshop prepared by ESRI to demonstrate and discuss names issues and technical developments. Brahim Atoui (Vice-Chair, UNGEGN, and Convener of the Task Team for Africa) and the Convener of this Working Group moderated the discussions.
- The special presentation (video-conference) about Unicode and in particular the Unicode Common Locale Data Repository. The Convener of this Working Group chaired the video conference session.
- The workshop on “Crowd-Sourcing” implications on authoritative toponymy.

#### Members of the Working Group participated in the following meetings and conferences

- Consultive Workshop on Future Orientation of Geographical Names in Activities, 23-25 November 2011, Gaborne, Botswana. The results are compiled in the Gaborone Action Plan GAP and are available through the web site of the workshop : <http://ecastats.uneca.org/acswb/FocusAreas/WorkshoponGeographicalNamesActivitiesinAfrica.aspx>
- Third Meeting of the Statistical Commission for Africa (StatCom Africa - III) Cape Town, South Africa, 18-23 January 2012, for promoting the GAP <http://www.uneca.org/statcom/2011/GAP-on-GNs-Activities-in-Africa.pdf>
- South African National workshop on Standardizing Geographical Names, 12-13 April 2012, Johannesburg, South Africa.

#### Working Group website

Within the UNGEGN website the section for the Working Group has been regularly updated. The section is accessible through: <http://unstats.un.org/unsd/geoinfo/UNGEGN/wg2.html>

In 2011 the existing separate Working Group website was re-launched in order to provide further information on text encoding, toponymic data files and gazetteers or spatial data infrastructures. It is linked to the section available within the UNGEGN website. This separate website is hosted by the German Federal Agency for Cartography and Geodesy (BKG). The software used for the website potentially allows implementing Wiki functionality, e.g. a discussion forum within the website: <https://network.gdi.de.org/display/wgtdfg/Working+Group+on+Toponymic+Data+Files+and+Gazetteers+of+UNGEGN> .

#### **IV. Upcoming Actions for 2012 – 2013**

- The Working Group will assist the UNGEGN chairperson and secretariat in co-operating with the UN GGIM committee in order to emphasize, promote and support UNGEGN tasks and activities.
- The Working Group will monitor the availability of free and easily-accessible authorised digital geographical names data as it is seen as a key driver in encouraging the use of nationally-standardised names.
- The Working Group will monitor and support the gazetteer framework project as part of the Center of Excellence UN Spatial Data Infrastructure (CoE4UNSDI).
- The Working Group will consider a review of the 2007 UNGEGN Technical reference manual for the standardization of geographical names co-ordinated with the Working Group on Publicity & Funding.
- The Working Group will further promote UNECA's provision of a free tool and contribute to reviews in order to support the creation of names databases in the context of an African spatial data infrastructure.
- The Working Group will continue to support toponymic training courses, in 2012 very likely to be conducted in Indonesia.
- The Working Group will contribute to and/or members will participate at international conferences, congresses and meetings:
  - 6<sup>th</sup> Arab conference on geographical names, 10-13 July 2012, Amman, Jordan
  - 32<sup>nd</sup> International Geographic Union Congress, 26-30 August 2012, Cologne, Germany
- The Working Group's websites will be updated regularly.