

Outline:

- ❑ International guidelines for the 2010 census round
- ❑ Capacity building activities related to use of geospatial tools
 - Regional Workshops
 - CensusInfo
- ❑ Country experiences during 2010 census round
- ❑ A new UN Expert Group on the Integration of Statistical and Geospatial Information
- ❑ Towards the 2020 census round: Why Geography Matters



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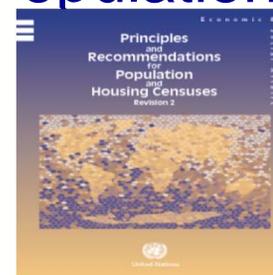
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International Guidelines

- UN Principles & Recommendations for Population and Housing Censuses, Rev.2



- Handbook on Geospatial Infrastructure in Support of Census Activities



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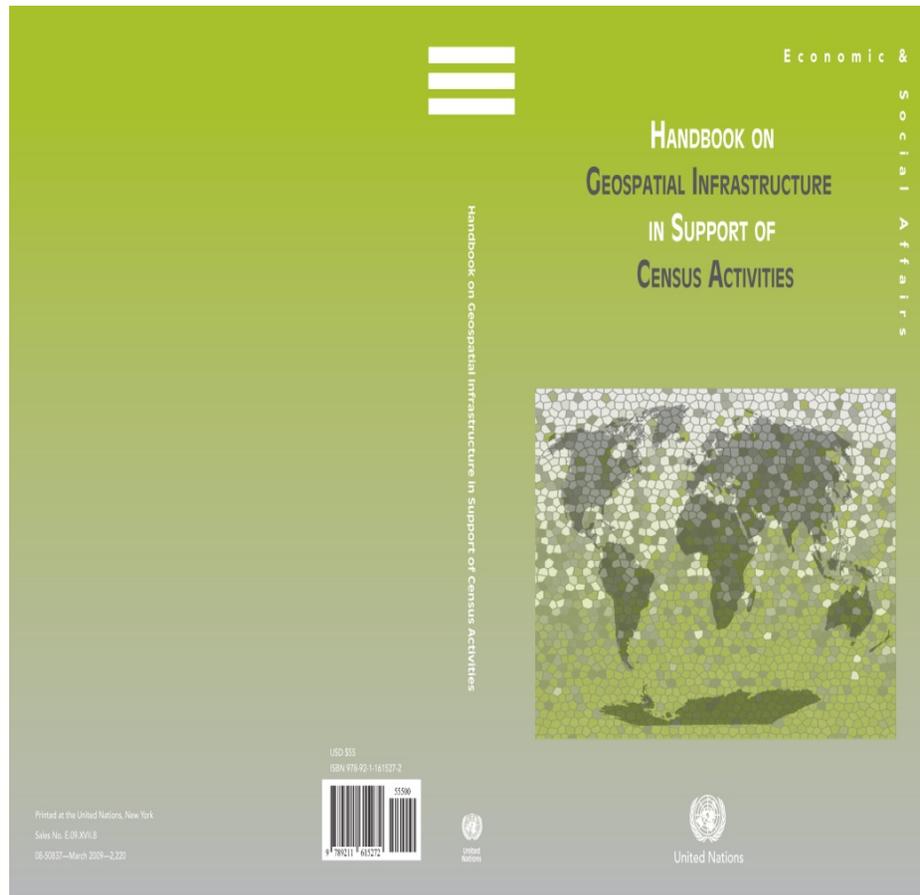
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UN Recommendations

- ❑ *UN Principles and Recommendations for Population and Housing Censuses, Rev.2*, recommends the use of **geospatial technologies for improving traditional methods of census mapping** (adopted by UNSC in 2007).
- ❑ Other recommendations derived from UN EGM on GIS and Census Mapping emphasized:
 - the need for countries to consider the **census geography programme as a continuous process**
 - the use of and application of geospatial technologies and information is **beneficial at all stages of population and housing census process** (GIS improves the efficiency in the preparatory, enumeration, processing and dissemination phases of the census)



Handbook on Geospatial Infrastructure in Support of Census Activities



- Audiences: managerial and technical
- “Cook-book” to illustrate the role of geospatial technology in each step of the census process
- Each country has to find its own best possible solution
- Available in the six UN official languages

<http://unstats.un.org/unsd/demographic/standmeth/handbooks/default.htm>



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National Capacity Building Activities

□ Regional Workshops on the use of geospatial tools:

▪ 8 regional workshops all over the world in the context of the World Population and Housing Census Programme 2010:

- English-speaking African countries: Lusaka, Zambia, 8-12 October 2007: 30 participants from 14 countries
- ESCAP: Bangkok, Thailand, 15-19 October 2007: 31 participants from 16 countries
- CARICOM: Port-o-Spain, Trinidad, 22-27 October 2007: 28 participants from 16 countries
- French-speaking African countries: Rabat, Morocco, 12-16 November 2007: 48 participants from 10 countries
- SPC: Noumea, New Caledonia, 4-8 Feb. 2008: 30 participants from 10 countries and two territories
- ESCWA: Doha, Qatar, 18-22 May 2008: 44 participants from 12 countries
- Latin America: Santiago, Chile, 24-27 November, 2008: 47 participants from 17 countries
- CIS: Minsk, Belarus, 8 - 12 December 2008, 41 participants from 11 countries

▪ More than 300 participants from more than 100 countries

□ CensusInfo

(see next slide)



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2010 World Population and Housing Census Programme

[Introduction](#) | [Statistics](#) | [Standards and methods](#) | [Meetings](#)

Global CensusInfo

Global CensusInfo is an application of CensusInfo implemented by the UNSD presenting data from national censuses. [More...](#)

[Global CensusInfo Database](#)

National Applications

CensusInfo applications developed by national statistics offices:

www.censusinfo.net

Training

The United Nations Statistics Division organizes CensusInfo training workshops to enhance the national capacity in the use of the CensusInfo to disseminate their census data.

[More...](#)



What is CensusInfo

The United Nations Statistics Division, in partnership with UNICEF and UNFPA, has developed a software package, CensusInfo to help countries disseminate their census data on CD-ROM and on the web. [More...](#)

Main Features

- CensusInfo is a tool to disseminate data on the web and on CD-ROM.
- CensusInfo includes census topics and a suggested list of census indicators with accompanying metadata. [More ...](#)
- CensusInfo can be customized to meet country-specific census indicators.
- CensusInfo presents indicators by time period, and geographic area, up to sub-national level, with extensive metadata.
- CensusInfo generates user-defined tables, graphs, maps and reports.
- CensusInfo can import data from other software applications, such as CPro, SAS, SPSS and Redatam.

Comparison with other software solutions

CensusInfo is specifically designed for census data dissemination. It combines a set of features which can not be found as such in most other software solutions. To help users, a comparison with other software packages in the context of data dissemination can be found [here](#).



How to Get

[Software and Manuals](#)

[Technical Support](#)

For further information, contact:

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New York, NY 10017, U.S.A.
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Objectives of CensusInfo

❑ Develop a software solution to facilitate the dissemination of census results fulfilling following minimum criteria:

- Easy to implement and easy to use
- Free to use
- **Dissemination of census data at any geographical level**
- **Able to generate census-specific outputs**
- Customization for country-specific requirements
- Dissemination on the web and CD-ROM



Country Experiences

- ❑ Use of geospatial technology
 - Pre-collection/compilation
 - Data collection/compilation
 - Dissemination of results

Sources:

Surveys conducted by UNSD to review experiences for 2010 round

Presentations by countries at workshops/conferences



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Use of Technology in 2010 Round

	No.	Per cent
Internet (data collection)	26	33
Laptop computers	31	26
Hand-held/pocket computers	10	9
Tablet computers	4	3
Geographical information systems (GIS)	75	64



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Use of technology - Cartography

- ❑ Census cartography one of census domains that have benefited the most from technological innovations
- ❑ In 2010 census round:
 - 58% use digitized maps
 - 74% use GPS/GIS
 - 25% aerial photography
 - 24% satellite imagery



Data Dissemination Methods

- 2010 round witnessing more use of Internet for dissemination and dissemination of micro-data
- Static web-pages – 95% of countries
- **On-line interactive databases – 53%**
- **GIS web-based tools – 59%**
- Disseminate micro-data – 59%
- Cater to customized requests for data – 76%
- Provide customized data free of charge – 27%
- System for archiving – 73%
- Use of social media for dissemination
- 5 developed countries will not disseminate via print publications



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Example of Data Collection experiences

- Hand-held devices, e.g., PDAs

- Oman
- Brazil
- Cape Verde
- Senegal



- Monitoring and management of field work
 - Poland



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Integration of Statistical and Geospatial Information

- Working with **National Statistical Offices** to evolve a global statistical system -- Many achievements over 65 years;
- Working with **National Geospatial Information Authorities** to evolve a global geospatial information platform with common practices and standards;
- Now working to bring these two communities together to evolve an **integrated national/global information system.**



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UN Statistical Commission and UN-GGIM Decisions on the Integration of Statistical and Geospatial Information

- ❑ Decision 44/11010 (of the UN SC session at its 44th session in March 2013):
 - “welcomed the proposal of an international conference as a way of outreach and best practices, bringing together both statistical and geospatial professional communities” and “requested the United Nations Statistics Division (UNSD) to establish an Expert Group composed of representatives of both statistical and geospatial communities to carry the work on developing a statistical spatial framework as a global standard for the integration of statistical and geospatial information.

- ❑ Decision 3/107 of UN-GGIM at its third Session in July 2013
 - “supported the decision by the Statistical Commission to create an Expert Group on the integration of statistical and geospatial information, comprising members of both the statistical and geospatial communities” and “supported holding an international conference on the topic”.



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UN Expert on the Integration of Statistical and Geospatial Information

- ❑ Establishment of UN Expert Group on the Integration of Statistical and Geospatial Information
 - First meeting in New York, 30 Oct. – 1 Nov. 2013
- ❑ International Workshop on Integrating Geospatial and Statistical Information, Beijing, 9-12 June 2014
- ❑ Global Forum on the Integration of Statistical and Geospatial Information-New York, 4-5 August 2014
- ❑ Next Meeting in Lisbon, May 2015



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Need for a Statistical Spatial Framework

Analysis and aggregation across geographies



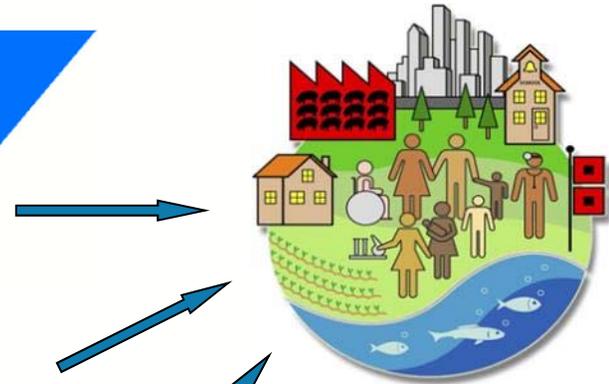
Aggregated to Local Government area or higher



Aggregated to an administrative unit

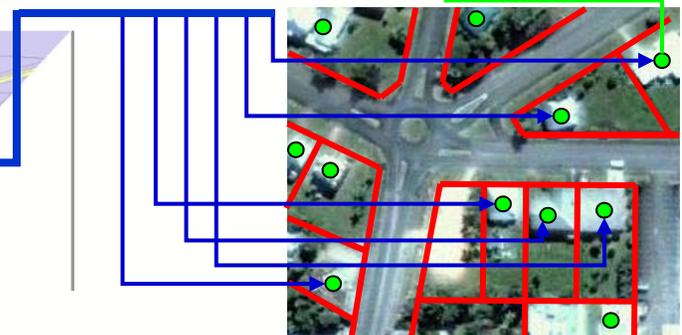


Aggregated to a district level



Geocoded unit level data

25 Dupont St = x,y: 35.5676, 135.6587



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Recommendations for 2020 round

Draft Principles and Recommendations for Population and Housing Censuses, Rev. 3 (to be adopted by UNSC at its 46th session, 3-6 March 2015)

- Recognizes availability of wide range of geospatial technological tools for use in census mapping
 - enablers for NSOs to collect more accurate and timely information about their populations



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Recommendations for 2020 round

- ❑ Use and application of geospatial technologies are very beneficial to improve quality of census activities at all stages of census
 - Satellite images
 - Aerial photography
 - GPS
 - Georeferenced address registry
 - GIS for enumeration maps and for dissemination

- ❑ Adoption of GIS should be a major strategic decision
 - A census GIS database is an important infrastructure to manage, analyze and disseminate census data



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Recommendations for 2020 round

- ❑ Geospatial analysis must become a core competence in any census office
 - Statistical offices should develop GIS applications with population data and other geo-referenced data from other sources for more advanced forms of spatial analysis

- ❑ Use of interactive tools
 - Mapping functionality



Thank You!



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