

**United Nations Regional Seminar on Census Data Dissemination and Spatial Analysis**  
31 May - 3 June 2011  
Santiago, Chile

## **Final Report of the Regional Seminar <sup>1</sup>**

---

<sup>1</sup> This document is being reproduced without formal editing.

## TABLE OF CONTENTS

	<i>Page</i>
I. INTRODUCTION .....	1
A. Background and objective of the regional seminar .....	1
B. Organization of the regional seminar .....	1
II. SEMINAR PRESENTATIONS .....	2
III. RECOMMENDATIONS .....	2
Annex I: Programme of work .....	5
Annex II: List of participants .....	7

## I. INTRODUCTION

### A. Background and objective of the regional seminar

The United Nations Regional Seminar on Census Data Dissemination and Spatial Analysis was held in Santiago, Chile from 31 May to 3 June 2011. The regional seminar was organized by the United Nations Statistics Division (UNSD) in collaboration with UNECLAC and UNFPA.

The purpose of the regional seminar was to provide a forum for sharing national practices and experiences in the dissemination of census data including use of Geographic Information System (GIS) and spatial analysis. The seminar reviewed emerging trends, innovative approaches and technological tools employed in the dissemination and use of census data. Furthermore, the seminar was aimed at providing a basis for: i) assessing existing national dissemination strategies as well as technologies used by national statistical offices across Latin America and the Caribbean; ii) taking stock of national capacities and challenges for meeting the increasing requirements of census data users; and iii) identifying good practices and lessons learned in the dissemination and analysis of census data.

The regional seminar was attended by 32 participants from 19 countries and representatives of the UNFPA, UNECLAC and the UN Statistics Division. The following countries participated in the regional seminar: Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Costa Rica, Dominica, Dominican Republic, Ecuador, Mexico, Paraguay, Peru, Suriname, St. Lucia, Trinidad and Tobago, Uruguay and Venezuela. (See Annex II for the full list of participants.)

### B. Organization of the regional seminar

The regional seminar was conducted according to the Work Programme (see Annex I). A number of presentations were delivered by UNSD, ECLAC, UNFPA, Resource Persons and participating countries to initiate and steer the general discussion under each topic. The topics—focusing on a significant aspect of a census data dissemination strategy—included: the development of a dissemination strategy; identification and consultation with data users; determination of the scope and the form of dissemination; data confidentiality; metadata in census data dissemination; use of technological tools in the dissemination of census data; use of GIS, web-based mapping and spatial analysis; software packages for dissemination of census data; and exploitation and analysis of census data. The general discussion on each topic facilitated the exchange of national experiences and helped to bring out the main issues and challenges in the dissemination and use of census data. All the presentations can be accessed at the United Nations Statistics Division (UNSD) website<sup>2</sup>.

---

<sup>2</sup> Please see: [http://unstats.un.org/unsd/demographic/meetings/wshops/Chile\\_31May11/list\\_of\\_docs.htm](http://unstats.un.org/unsd/demographic/meetings/wshops/Chile_31May11/list_of_docs.htm)

## II. SEMINAR PRESENTATION

Presentations made at the regional seminar are available on the UNSD website: [http://unstats.un.org/unsd/demographic/meetings/wshops/Chile\\_31May11/list\\_of\\_docs.htm](http://unstats.un.org/unsd/demographic/meetings/wshops/Chile_31May11/list_of_docs.htm)

## III. RECOMMENDATIONS

The United Nations Regional Seminar on Census Data Dissemination and Spatial Analysis, conducted in Santiago, Chile from 31 May to 3 June 2011, adopted the following conclusions and recommendations.

### **Dissemination strategy**

1. The census dissemination programme should be an integral part of the overall census process, based on a detailed analysis of the existing and potential-users' needs and requirements, and should include the list and timing of the main dissemination operations, their estimated costs and the human and technological resources that will be needed.
2. It was recognized that post-enumeration activities, in particular dissemination activities, usually suffer from lack of sufficient resources. Budget and human resources for dissemination need to be determined and protected from the beginning of the census project.
3. While it was recognized that the use of new technology is speeding up the collection and processing of census data, it was also observed that this has increased pressure on national statistical offices (NSOs) to release results early. In order to manage that pressure it is important to develop a realistic and manageable schedule of data dissemination which should be made public, according to the needs of each country.
4. NSOs should ensure transparency using a clear dissemination and data access policy, and guidelines for the conditions under which data will be provided.
5. NSOs should develop strategies to promote statistical literacy and awareness among users on the use of census information, in particular policy makers, the media, and students. NSOs should work with schools and universities to educate students on the importance, interpretation and use of statistics.
6. NSOs should forge strategic partnerships with ministries and other relevant user and producer institutions to help build awareness about the use of census data and to demonstrate how the data can be used effectively in formulating plans, programmes and policies for improving living conditions of people.

### **User consultation**

7. NSOs should identify the users of census data, taking into account the diverse nature of user, and provide products and services according to the needs of targeted users. NSOs should be

careful not to promise what they cannot deliver. They should have an institutional strategy to develop a system for continuous consultation and collaboration with users. The dialogue with users should start early in census planning stage to determine the census topics, outputs and their formats.

8. It is recommended that census topics be determined taking into account the quality of the information to be obtained.

### **Scope and form of data dissemination**

9. NSOs are encouraged to disseminate census results using electronic media to the extent possible.

10. NSOs should produce socio-economic and demographic indicators with graphs and maps, besides the regular tabulations, to increase utilization of data by policymakers and others.

11. Efforts should be made to segment and target users according to their needs for statistical information to the extent possible.

### **Metadata**

12. Emphasis was made on the importance of preserving all census documentation to retain institutional memory of census operations for NSOs' internal use to serve as reference for future censuses. To ensure that such resources will be recovered and accessible into the future, it was recommended that such reports existing in print forms should be digitized.

13. It was recognized that the collection of metadata must be viewed as an integral part of the statistical process, and not as a task to be carried out at the end. Metadata should be disseminated along with datasets in as a comprehensive and accessible manner as possible. Metadata stored in outdated storage media should be properly migrated into current technological platforms so as not to lose content in the process.

### **Confidentiality**

14. It was recognized that extra care should be taken when disseminating census results at smaller geographical levels or for small population groups so as not to compromise confidentiality of data. The anonymization of micro-data should be conducted with the utmost care not to violate confidentiality.

### **Use of technology**

15. It was recognized that the use of social media (Facebook, Twitter) has enhanced the outreach activities of NSOs. It was noted that while social media have helped to promote participation in censuses, they have also added to workloads of NSOs in terms of information exchange with users.

16. Rapid technological development and its increasing use in census operations are putting pressure in the operating environments of NSOs, therefore, resulting in the need for continuous innovation and improvements in the competence and capacity of institutional, managerial and human resources.

17. It was recognized that the use and application of geo-spatial technologies and geographic information systems increase the efficiency of all phases of censuses and surveys, including data dissemination. To maximize the benefits of GIS, NSOs should regard the census geography programme as a continuous process in support of statistical activities, taking into account that its development and management require significant resources, training and technical support.

18. The idea of using open-source GIS software was encouraged if it satisfies the purposes of the NSOs. However, NSOs licensing commercial softwares should compare and assess the cost of continuous maintenance fees of commercial softwares against the cost of obtaining such licenses periodically.

19. There was appreciation to UNSD, CELADE and UNFPA for the opportunity to discuss the capabilities, similarities and differences, and at the same time the strengths and weaknesses of CensusInfo, Redatam and CSPro—systems for disseminating census data. It was agreed to take advantage of these freely available software packages and their support systems. It was recommended that the three UN organizations coordinate to enhance the compatibility and complementarities of the three softwares so that countries will get the maximum possible benefits from them.

20. The seminar encouraged South-South cooperation among NSO's as an effective means of strengthening capacities in the use of Geographic Information Systems and other new technologies to produce and disseminate official statistics from censuses. This matter has been raised in several fora but it has been observed that such cooperation has been put to use only to a limited extent for various reasons. It is very important that heads of NSO's give this initiative their full support and also table it at high level regional meetings for region wide resolutions to strengthen South-South cooperation.

## Annex I: Programme of work

<i>TIME</i>	<i>TOPIC</i>
<b><u>Tuesday 31 May 2011</u></b>	
<b>9:00 – 9:30</b>	<b><i>Registration of participants</i></b>
<b>9:30 – 10:00</b>	<b>Session 1 – Opening remarks</b> – UNSD, UNECLAC/CELADE, administrative matters
<b>10:00 – 11:00</b>	<b>Session 2 – The 2010 World Programme on Population and Housing Censuses</b> <ul style="list-style-type: none"> <li>- Presentation by UNSD</li> <li>- Round table oral presentation by countries</li> </ul>
<b>11:00 – 11:30</b>	<b><i>Coffee break</i></b>
<b>11:30 – 12:30</b>	<b>Session 3 – Regional perspective on census data dissemination</b> <ul style="list-style-type: none"> <li>- Presentation on practices and experiences of Caribbean and Latin American countries on census data dissemination and spatial analysis (UNECLAC/CELADE)</li> <li>- General discussion</li> </ul>
<b>12:30 – 13:30</b>	<b><i>Lunch</i></b>
<b>13:30 – 15:00</b>	<b>Session 4 – Strategies for census data dissemination</b> <ul style="list-style-type: none"> <li>- Introduction by UNSD</li> <li>- Presentation by resource persons</li> <li>- Presentation by countries</li> <li>- General discussion</li> </ul>
<b>15:00 – 15:30</b>	<b><i>Coffee break</i></b>
<b>15:30 – 17:00</b>	<b>Session 5 – Identification of and consultations with census data users</b> <ul style="list-style-type: none"> <li>- Presentation by UNSD</li> <li>- Presentations by countries</li> <li>- General discussion</li> </ul>
<b><u>Wednesday 1 June 2011</u></b>	
<b>9:00 – 10:30</b>	<b>Session 6 – Determination of the scope and form of census data dissemination</b> <ul style="list-style-type: none"> <li>- Introduction by UNSD</li> <li>- Presentation by resource person</li> <li>- Presentation by countries</li> <li>- General discussion</li> </ul>
<b>10:30 – 11:00</b>	<b><i>Coffee break</i></b>
<b>11:00 – 12:30</b>	<b>Session 7– Data confidentiality</b> <ul style="list-style-type: none"> <li>- Presentation by UNECLAC/CELADE</li> <li>- Presentation by countries</li> <li>- General discussion</li> </ul>
<b>12:30 – 13:30</b>	<b><i>Lunch</i></b>
<b>13:30-14:30</b>	<b>Session 8 – Metadata in census data dissemination</b> <ul style="list-style-type: none"> <li>- Presentation by UNSD</li> <li>- Presentation by countries</li> <li>- General discussion</li> </ul>
<b>14:30 – 15:00</b>	<b>Session 9 – Use of technological tools in the dissemination of census data</b> <ul style="list-style-type: none"> <li>- Introduction by UNSD</li> <li>- Presentation by resource persons</li> <li>- Presentation by countries</li> <li>- General discussion</li> </ul>

<i>TIME</i>	<i>TOPIC</i>
15:00 – 15:30	<i>Coffee break</i>
15:30 – 17:00	Session 9 – Use of technological tools in the dissemination of census data (Contd.)
<b><u>Thursday 2 June 2011</u></b>	
09:00 – 10:30	<b>Session 10 – Use of GIS, web-based mapping and spatial analysis</b> <ul style="list-style-type: none"> <li>- Presentation by resource person</li> <li>- Presentation by countries</li> <li>- General discussion</li> </ul>
10:30 – 11:00	<i>Coffee break</i>
11:00 – 12:30	Session 10 – Use of GIS, web-based mapping and spatial analysis (Contd.)
12:30 – 13:30	<i>Lunch</i>
13:30 – 15:00	<b>Session 11 – Software packages for dissemination of census data</b> <ul style="list-style-type: none"> <li>- Presentation on CSPro by UNFPA</li> <li>- Presentation on Redatam by UNECLAC/CELADE</li> <li>- Presentation on CensusInfo by UNSD</li> <li>- General discussion</li> </ul>
15:00 – 15:30	<i>Coffee break</i>
15:30 – 17:00	Session 11 – Software packages for dissemination of census data (Contd.)
<b><u>Friday 3 June 2011</u></b>	
9:00 – 10:30	<b>Session 12 – Exploitation and analysis of census data</b> <ul style="list-style-type: none"> <li>- Presentation by UNECLAC/CELADE</li> <li>- Presentation by countries</li> <li>- General discussion</li> </ul>
10:30 – 11:00	<i>Coffee Break</i>
11:00 – 12:30	Session 12 – Exploitation and analysis of census data (Contd.)
12:30 - 13:30	<i>Lunch</i>
13:30 – 15:00	<b>Session 13 – Consideration of recommendations for effective dissemination and utilization of census data</b> <ul style="list-style-type: none"> <li>- UNSD and UNECLAC/CELADE</li> </ul>
15:00 – 15:30	<i>Coffee Break</i>
15:30 – 17:00	Session 14 – Closing



## Annex II: List of participants

No	Country Name/ Organization	Count	Contact Person Information
1	Argentina	1	Mr. Guillermo Krieger Data Analysis Technician INDEC
		2	Mrs. Gabriela Ackerman Asesora de la Direccion INDEC
2	Bahamas	3	Ms. Coralee Mackey Supervisor Census Section/Chief Census Officer Bahamas Government Ministry of Finance Department of Statistics
3	Barbados	4	Ms. Janelle Scantlebury Statistician II Barbados Statistical Service
4	Belize	5	Mr. Glenford Avilez Director-General Statistical Institute of Belize (formerly Central Statistical Office)
5	Bolivia	6	Mr. Carlos Alberto Oyola Arduz Director de Censos Instituto Nacional de Estadística
6	Brazil	7	Ms. Maria Do Carmo Bueno Statistical /Geographical Data Technician Instituto Brasileiro de Geografia e Estatística (IBGE)
7	Chile	8	Mr. Eduardo Castro Ibanez Coordinador Proyecto Censo de Población y Vivienda Instituto Nacional de Estadísticas
		9	Ms. Paula Jara Echegoyen Subdirectora de Operaciones Instituto Nacional de Estadísticas
		10	Mr. Jaime René Ruiz Chacón Jefe Subdepto de Tecnología Cartográfica Instituto Nacional de Estadísticas
		11	Ms. Nidia Bustamante Coordinadora de Imagen Corporativa Instituto Nacional de Estadísticas
		12	Mr. Claudio Yanez Coordinador tecnico Instituto Nacional de Estadísticas
		13	Mr. MIGUEL GUERRERO JEFE AREA ESTADISTICAS SOCIALES INE-CHILE
		14	Mr. CHARLES ROBERT DURAN ARTIGAS JEFE DEPTO. INVESTIGACIÓN Y DESARROLLO INSTITUTO NACIONAL DE ESTADÍSTICAS

No	Country Name/ Organization	Count	Contact Person Information
		15	Mr. Reinaldo Segura Corporate GIS Coordinator Instituto Nacional de Estadísticas
		16	Mr. EDUARDO CARRASCO ARRIAGADA Instituto Nacional de Estadísticas
		17	Ms. MARIA DE LA LUZ NIETO ENCARGADA UNIDAD DE CEDULA CENSAL Instituto Nacional de Estadísticas
		18	Mr. Rodrigo Flores Coord inador Unidad de Planificaci6n Proyeclo Censo Instituto Nacional de Estadísticas
8	Costa Rica	19	Ms. Marlene Sandoval Hernandez Professional Bachiller Instituto Nacional de Estadística y Censos
9	Dominica	20	Mr. Stephen Nicholas Statistical Officer I/Deputy Census Officer Government of Dominica
10	Dominican Republic	21	Mr. Caceres Urena, Encargado de la Gerencia de Censos y Encuestas Oficina Nacional de Estadística
11	Ecuador	22	Mr. Enrique Clavijo Head of Management Technology Platform Instituto Nacional de Estadística y Censos
12	Mexico	23	Ms. Elsa Maria Resano Census Manager INEGI
		24	Mr. Oswaldo Palma TECHNICAL DIRECTOR INEGI
13	Paraguay	25	Ms. Nancy Elizabeth Cano de Guillen Tefa Departamento de Censos de Censos Poblacion y Viviendas Direccion General de Encuestas y Censos (DGEEC)
14	Peru	26	Mr. Hermogenes Alejandro Vilchez de los Rios Technical director of Dissemination Instituto Nacional de Estadística e Informatica (INEI)
15	Suriname	27	Ms. Eartha Groenfelt Manager Census Office General Bureau of Statistics (GBS)
16	St. Lucia	28	Mr. Edwin St. Catherine Director of Statistics Central Statistics Office
17	Trinidad and Tobago	29	Ms. Shirley Christian-Maharaj Assistant Director of Statistics Central Statistical Office Ministry of Planning, Economic and Social Restructuring and Gender Affairs

No	Country Name/ Organization	Count	Contact Person Information
18	Uruguay	30	Ms. Stella Maris Landeira Giuliani Jefa de Seccion Atencion A Usuarios Instituto Nacional de Estadística
19	Venezuela	31	Mr. Frank Ortega Gerente General de Planes y Desarrollo Estadístico – sub Cordinador Nacional del XIV Censo Nacional de Pobacion y Vivienda 2011 Instituto Nacional de Estadistica
20	UNFPA	32	Mr. Carlos Ellis UNFPA Census Regional Advisor
21	UNECLAC	33	Mr. Dirk Jaspers Faijer Director CELADE-Population Division
		34	Ms. Magda Ruiz Regional Advisor CELADE-Population Division
		35	Ms. María-Isabel Cobos Hernández Associate Population Affairs Officer CELADE-Population Division
		36	Ms. Alejandra Silva Programme Assistant CELADE-Population Division
		37	Mr. Jorge Rodríguez Research Assistant CELADE-Population Division
		38	Mr. Sebastián Carrasco Research Assistant CELADE-Population Division
		39	Ms. Daniela González CELADE-Population Division
22	UNSD	40	Mr. Yacob Zewoldi Chief, Demographic Statistics Section United Nations Statistics Division
		41	Ms. Meryem Demirci Interregional Advisor Demographic Statistics Section United Nations Statistics Division
		42	Mr. Seiffe Tadesse Statistician Demographic Statistics Section United Nations Statistics Division