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The Census in Global Perspective

Trends and Emerging Issues

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Opinions expressed in this presentation are personal, and may not necessarily represent the official views of the government or the organization to which he belongs.

Introduction

- ◆ The 2010 World Census Programme:
 - A Turning Point for Census Taking
- ◆ New Methods and Approaches are emerging:
 - Use of ICT, Multimodal Collection, Register-Base
 - Census taking is diversifying among countries
- ◆ Investment is needed on the one hand, but budget remains to be constrained.
- ◆ Once the new methods are introduced, there is no way to return older methods.
 - We have to keep improving the census taking continuously.

Census in Global Perspective

Trends and Emerging Issues

1 Introduction - Essential Roles of the Census

- (1) World Population Trend and Global Issues
- (2) Essential Roles of the Census

2 Census Taking in the 2010 World Census Round

- (1) Census Taking by Year
- (2) Census Methods - Traditional vs. Alternative
- (3) Census Methods - Use of ICT
- (4) Census Methods - Dissemination and Evaluation
- (5) Census Costs
- (6) Case Cases

3 Emerging Issues

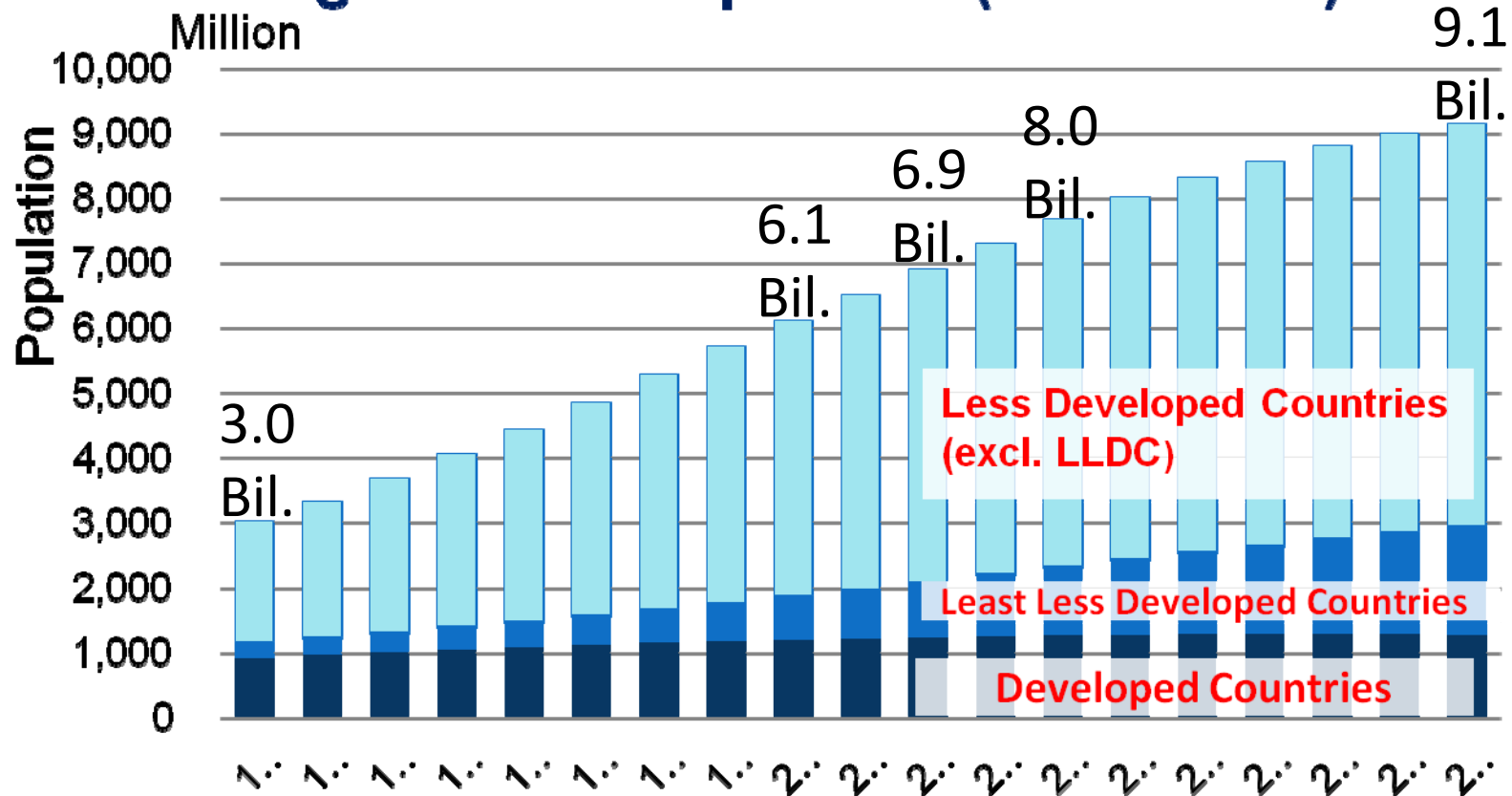
- (1) Securing Necessary Resources
- (2) Choosing Appropriate Methods
- (3) Enhancing Usefulness of Census Statistics
- (4) Gaining Public Support for the Census

4 Conclusion

1 Introduction - Essential Roles of the Census

(1) World Population Trend

Fig.1 World Population (1960 - 2050)

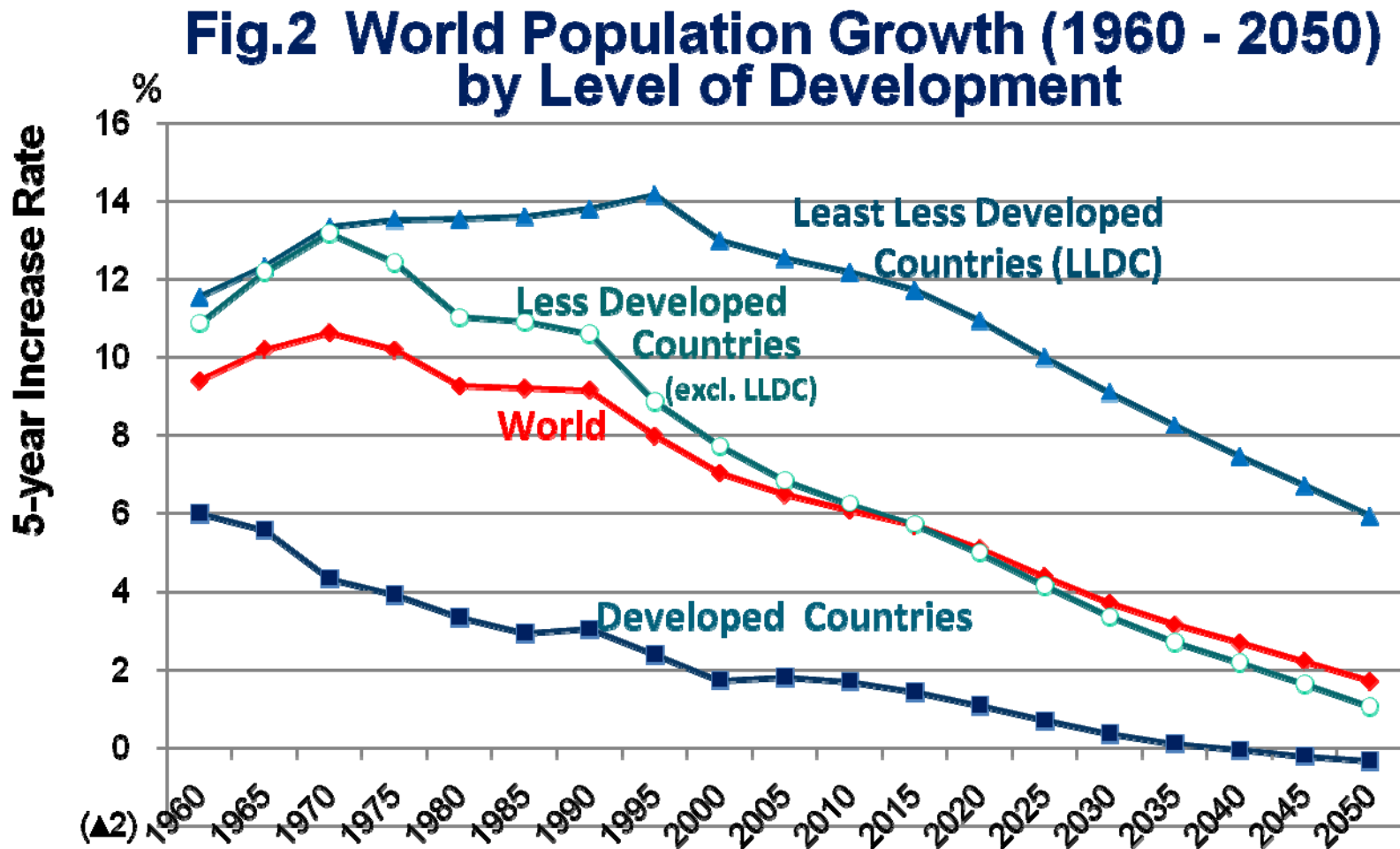


Source: UNPD [1] (Medium Variant)

Classification of countries follows the practice of the source material.

1 Introduction - Essential Roles of the Census

(1) World Population Trend and Global Issues



1 Introduction - Essential Roles of the Census

(1) World Population Trend and Global Issues

Many global issues are linked to the population.

- ◆ Population Size

 - Global sustainability: food, water, energy, global warming, etc.

- ◆ High population growth rates

 - Poverty, hunger, health and education problems, etc.

- ◆ Fertility Decline and Ageing:

 - Demographic “Bonus” turning to “Onus”

- ◆ Migration to urban areas resulting in urban/rural gaps

 - Relevant and reliable census statistics are needed.

1 Introduction - Essential Roles of the Census

(2) Essential Roles of the Census

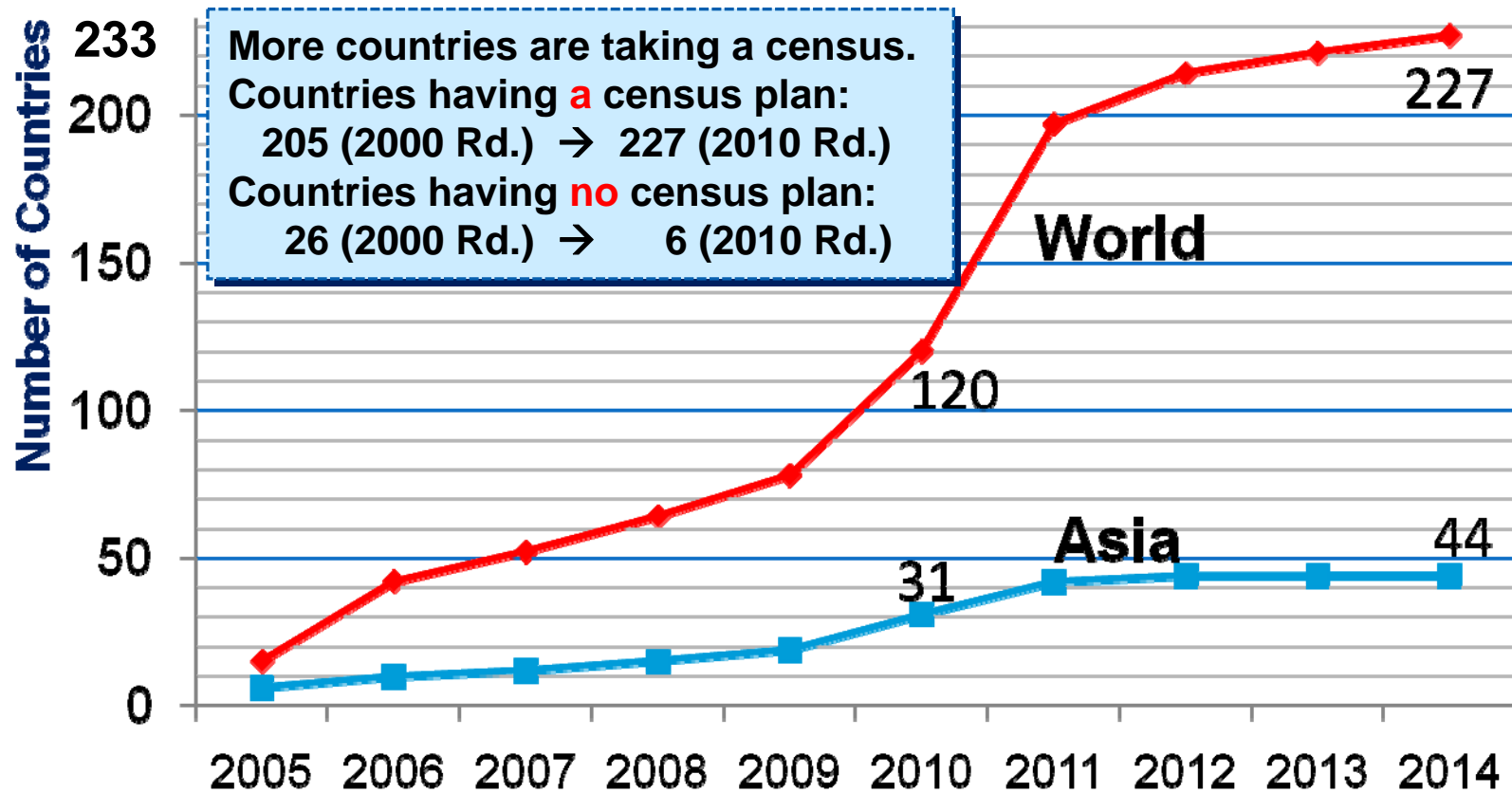
- ◆ Public Policies - Ensure equity and establish public consensus
e.g. Electoral Districts, Allocation of Government Funds,
Education and Health services
- ◆ Private Sector - Support decision-making and researches
e.g. Business Decisions, Market Researches, Academic Uses
- ◆ Small Area Statistics or Statistics for Small Groups
e.g. Urban Planning, Disaster Relief, Minorities
- ◆ Central Roles in Official Statistics - frames and benchmarks
e.g. Sampling Frames, Population Projections

⇒ The census has broad and essential social roles, beyond its basic roles as social and demographic statistics.

2 Census Taking in the 2010 World Census Round

(1) Census Taking by Year

Fig.3 Cumulative Number of Countries Taking a Census



Source: **UNSD [1]** (Table 1.1)

Note: Based on an inquiry to 233 countries/areas by UN taken from May 2009 till Jan. 2010.

2 Census Taking in the 2010 World Census Round

(2) Census Methods – Traditional vs. Alternative (1)

Table 1 Main Sources of Census Data by Geographic Region

Region / Methods	Total	Traditional	Register	Rolling	Other
Total	138	115	15	1	7
Africa	29	29	0	0	0
Asia	39	35	2	0	2
Europe	39	21	12	1	5
Latin America & Caribbean	22	22	0	0	0
Northern America	4	3	1	0	0
Oceania	5	5	0	0	0

France

Source: UNSD [1] Table 2.2 (Based on the responses from 138 NSOs)

“Other” refers to combination of different sources including registers and censuses/surveys.

2 Census Taking in the 2010 World Census Round

(2) Census Methods – Traditional vs. Alternative (2)

Table 2 Mode of Enumeration by Geographic Region

Region / Methods	Total	Face-to-Face Interview	Self-Enumeration		Register	Other
			Paper	Internet		
Total	138	117	39	32	25	11
Africa	29	29	4	0	1	0
Asia	39	37	13	12	5	6
Europe	39	23	14	13	17	4
Latin America & Caribbean	22	21	3	4	0	0
Northern America	4	3	2	1	1	1
Oceania	5	4	3	2	1	0

Source: UNSD [1] Table 4.1 (The sums of details are not equal to the total, because of multiple entries.)

⇒ Multimodal enumeration is becoming more common.

2 Census Taking in the 2010 World Census Round

(2) Census Methods – Traditional vs. Alternative (3)

- Following 15 countries adopted “administrative registers” as the main data source:
 - (Asia)** Bahrain, Singapore
 - (Europe)** Austria, Belgium, Denmark, Finland, Germany, Iceland, Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland
 - (N.America)** Greenland
 - Among the above, 5 countries rely on registers alone, while 10 use other additional sources.
 - 25 countries (including above 15) use “registers” for enumeration in some way.
- ==> “Register-Base” approach is increasing, but “Full-Register-Base” cases are still limited. The forms of “Register-Base” seem to be diverse.

2 Census Taking in the 2010 World Census Round

(3) Census Methods – Use of ICT

More countries are using advanced information and communication technologies.

Number of Countries / Areas Using

- GPS / GIS: 102 / 125 countries/areas
- Digitized Maps : 71 / 122
- Data Capture Method of
 - Optical Readers Only: 29 / 136
 - Optical Readers and Others: 38 / 136
 - Mainly PDA: 6 / 136
 - PDA with Others: 7 / 136
- Internet Response System: 32 / 138

Source: UNSD [1]

The number of responding countries differ depending on the questions.

2 Census Taking in the 2010 World Census Round

(4) Census Methods – Dissemination and Evaluation

Data dissemination methods are diversifying, and data quality evaluation is widely implemented.

- Disseminating by Online DB: 72 / 134 countries/areas
- Disseminating by Web GIS: 79 / 134
- Having an Archiving System: 106 / 134
- Disseminating Microdata: 77 / 131
- Providing Customized Service: 101 / 133
of which free of charge 27 / 133
- Evaluating with PES only: 58 / 124
- Evaluating with PES+Analysis: 38 / 124
- Adjusting Census Results: 32 / 124

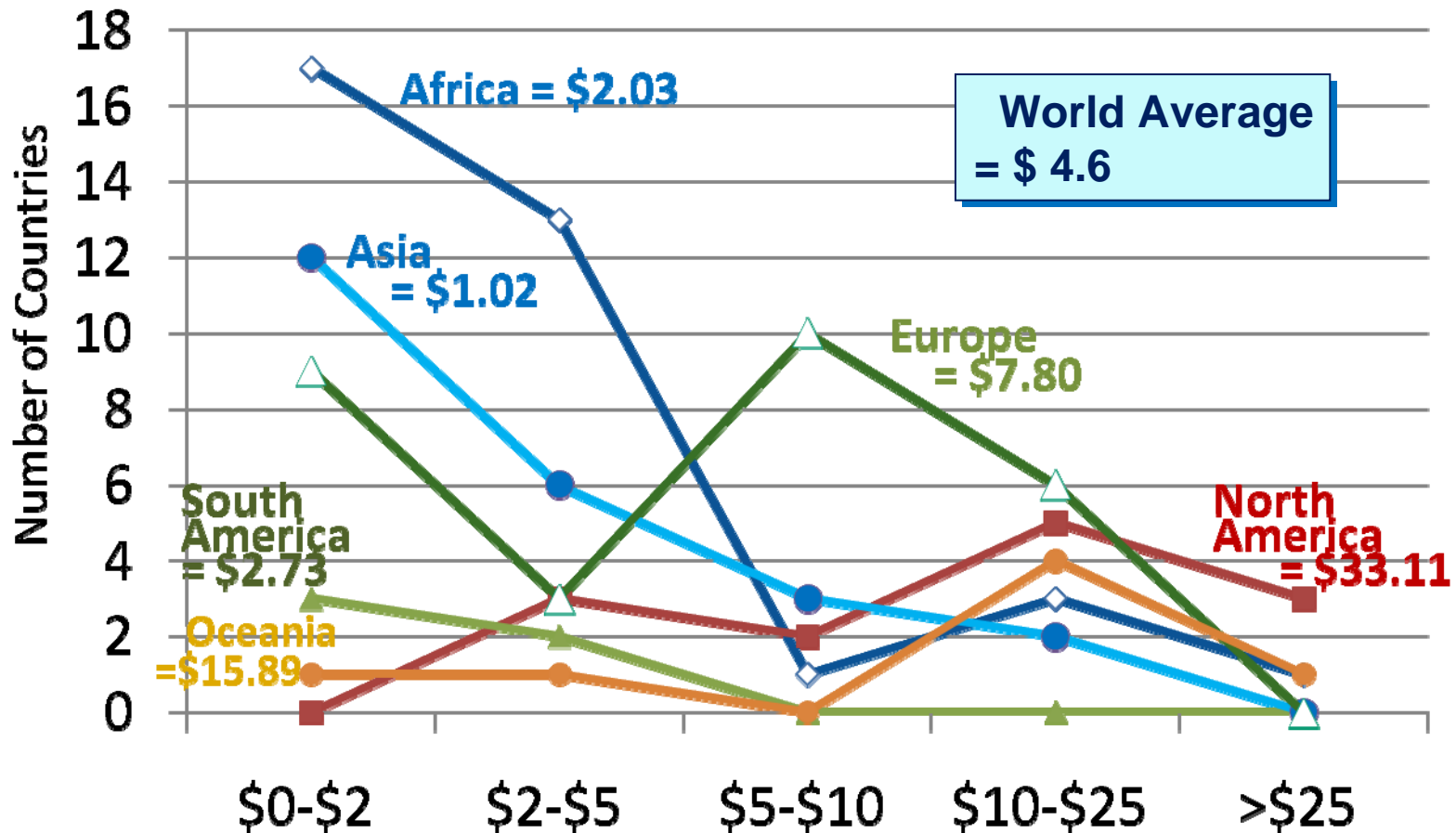
Source: UNSD [1]

The number of responding countries differ depending on the questions.

2 Census Taking in the 2010 World Census Round

(5) Census Costs

Fig.4 Estimated Census Cost per Capita by Region



Source: UNSD [2] Based on an inquiry to 211 countries by UN from autumn of 2007 to March 2008.

2 Census Taking in the 2010 World Census Round

(6) Country Cases - Poland

Case 1 2011 Census of Poland

Population: Approx. 38 million

Reference Data: March 31, 2011

Data Collection Method: Multimodal (Purely Electronic)

Data from various administrative sources are combined.

e.g. Population Register, Tax Register, Land and Building Register

Enumeration Timetable:

April 1 – June 16 On-line response through the website.

April 8 – June 30 Telephone interviews (CATI)

Personal interviews by enumerators with PDA

==> The multimodal method of Poland is supported by administrative registers and the national ID system.

Source: “National Census in 2011 (NSP 2011)”, downloaded from UNSD 2010 World Census Programme Website (Country Documents).

2 Census Taking in the 2010 World Census Round

(6) Country Cases

Case 2 2011 Census of India

Population: Approx. 1.2 billion

Reference Data: March 1, 2011

Data Collection Method: Interview by enumerators

Enumeration Period:

First Phase (House Listing) April – September 2010

Second Phase (Enumeration) February 9 - 28, 2011

(Re-visit) March 1 - 5, 2011

==> The National Population Register is being prepared in parallel with the Census, but as a separate operation. NPR is expected to play important roles in the future census taking of India.

Source: Website of the 2010 Census of India (Office of Registrar-General & Census Commissioner) <http://www.censusindia.gov.in/default.aspx>
“National Population Register in India – A Step towards Register Based Census” by Dr. Chandramouli downloaded from UNSD Website

3 Emerging Issues

(1) Securing Necessary Resources

Countries Needing No Assistance: 46 / 138 Countries

Needing Some Assistance: 92 / 138

For the 92 Countries Needing Assistance,
the fields needing assistance are:

New Technologies64 Countries

Cartography57

Quality Assurance56

Analysis and Dissemination55

Data Processing46

Funding Resources46

Data Capture39

Publicity & Communication32

==> Many countries are hoping for new methods using
ICT, but facing with shortage of resources.

Source: UNSD [1]

The number of responding countries differ depending
on the questions.

3 Emerging Issues

(2) Choosing Appropriate Methods

Choose the methods most appropriate to country situation, such as:

- i) Traditional, ii) Register-Base, iii) Other Alternatives,
- iv) Long Form / Short Form, v) Mail-out / Mail-back,
- vi) Internet Response, vii) PDA for field work,
- viii) Optical Readers, ix) Automated Editing / Classification,
- x) Electronic Data Dissemination, xi) Other methods and options

Meet the conflicting requirements:

- i) accuracy, ii) timeliness, iii) cost-saving, iv) less burdens.

Long-term planning, rigorous testing, and good management in the process are needed.

3 Emerging Issues

(3) Enhancing Usefulness of Census Statistics

To gain more solid support for the census, it is necessary to enhance usefulness of the census.

For this purpose, new ways of using census data have to be developed and promoted.

- ◆ Developing new ways of using and viewing statistics

 - e.g. Visualizing Small Area Statistics
Customized Maps

- ◆ Providing services to support in-depth uses

 - e.g. Microdata, Custom Tabulation, GIS, Analytical Tools

- ◆ Gaining seeds for new ideas by communicating with users

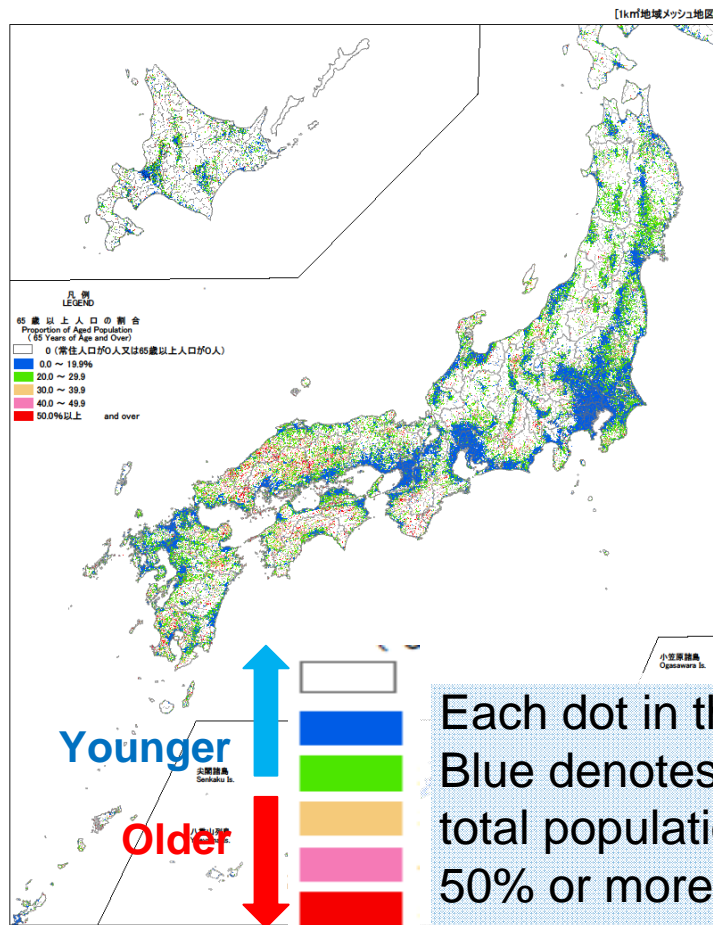
 - e.g. User conferences, Collaboration with other agencies

3 Emerging Issues

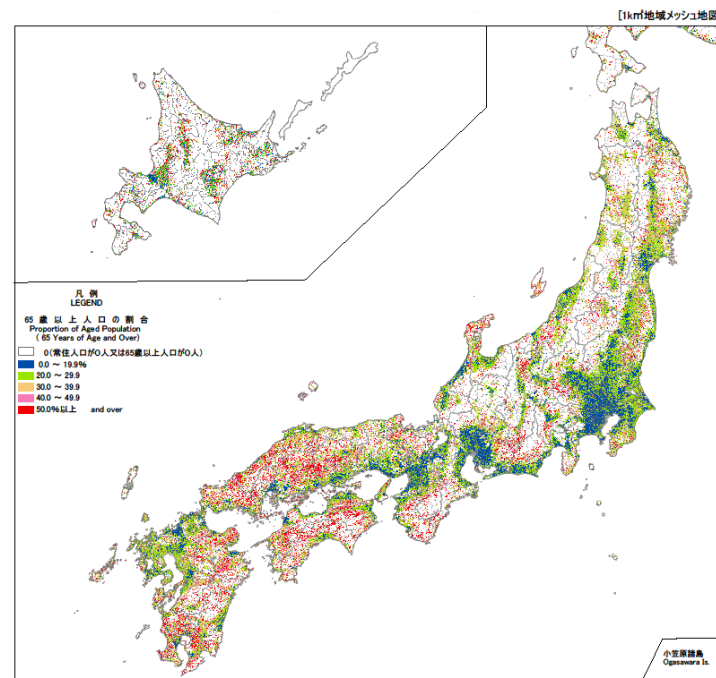
(3) Enhancing Usefulness of Census Statistics

Grid Square Statistics of Percentage of Elderly Population

1995



2005

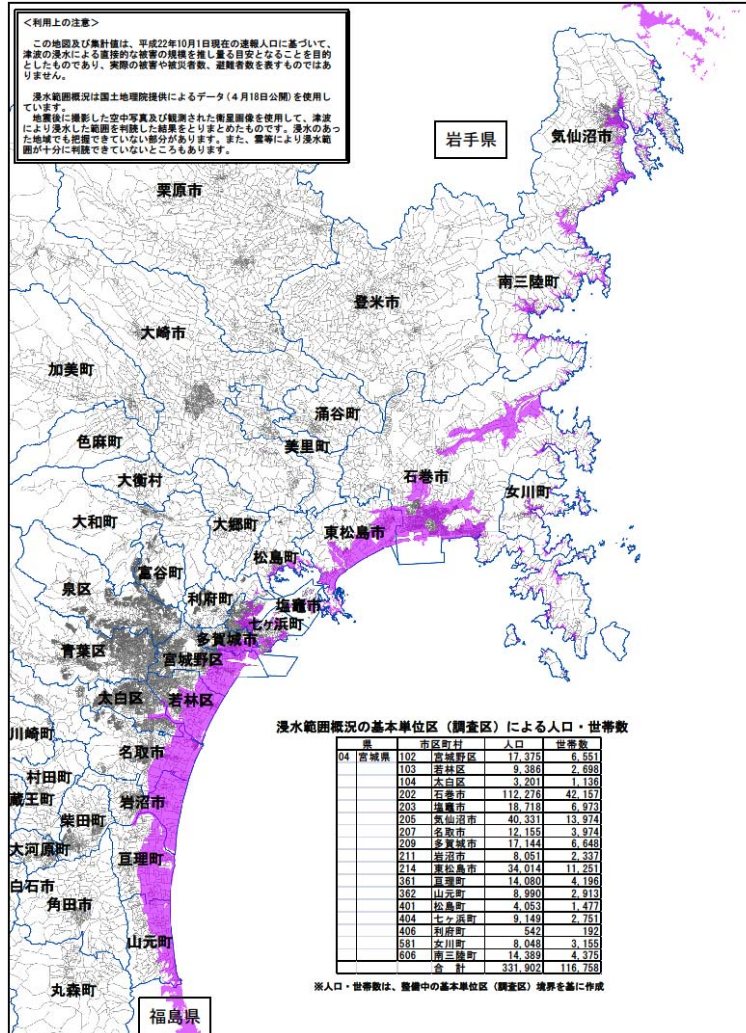


Each dot in the map represents 1km X 1km square. Blue denotes areas with the elderly less than 20% of total population. Red denotes areas with the elderly 50% or more of total population..

3 Emerging Issues

(3) Enhancing Usefulness of Census Statistics

宮城県の浸水範囲概況にかかる基本単位区(調査区)による人口・世帯数



Map of Flooded Areas of Tsunami

The maps and the population data for the flooded areas were provided to the local governments according to their needs.

The flood areas were demarcated on the basis of aerial photos and satellite imagery by the Geospatial Information Authority of the Government.

The population of the flooded areas were compiled for each municipality from the enumeration areas, the smallest area units of the Census.

3 Emerging Issues

(4) Gaining Public Support for the Census

The census sometimes becomes a subject of political debate. Good understanding and support from politics is desirable.



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StatsCan head quits over census dispute

Last Updated: Wednesday, July 21, 2010 | 11:16 PM ET CBC News

Munir Sheikh, the head of Statistics Canada, resigned Wednesday over the federal government's decision to scrap the mandatory long-form census.

"I want to take this opportunity to address a technical statistical issue which has become the subject of media discussion. This relates to the question of whether a voluntary survey can become a substitute for a mandatory census," Sheikh said in a release.

"It cannot," he said. "Under the circumstances, I have tendered my resignation to the prime minister."

Munir Sheikh, the head of Statistics Canada, announced his resignation Wednesday.



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Politics

National census to be axed after 200 years

The Census, the official population count carried out by the Government, is to be scrapped after more than 200 years, The Daily Telegraph can disclose.



4 Conclusion

- ◆ Overcome the weaknesses of the census.
- ◆ Choose the most appropriate methods for the country situation – no universal formula
- ◆ Make census data more and more useful, and also make its usefulness well understood
- ◆ Learn from international experiences



Achieve a National “Census Consensus”





The End

Thank You !

“Census Kun” is the mascot baby of Japan’s Population Census. He is 21 years old this year.

Sources:

UNPD[1]: United Nations Population Division (UNPD) “World Population Prospects, 2008 Revision”
Downloaded on 1 April 2011 from <http://www.un.org/esa/population/unpop.htm>

(For a more recent updated projection, see “World Population Prospects, 2010 Revision”)

UNSD[1]: United Nations Statistics Division (UNSD) “Report on the Results of a Survey on Census Methods used by Countries in the 2010 Census Round”, Downloaded on 1 April 2011 from http://unstats.un.org/unsd/demographic/sources/census/2010_PHC/default.htm

UNSD[2]: United Nations Statistics Division (UNSD) “Projected Census Dates, Funding Requirements and Sources, and Technical Assistance Needs for the 2010 Round of Population and Housing Censuses”, Downloaded on 1 April 2011 from <http://unstats.un.org/unsd/censuskb20/Knowledgebase.aspx>