



Organised by



7th Malaysia Statistics Conference

20th & 22nd October 2020

In conjunction with World Statistics Day & MyStats Day 2020

Department of Statistics Malaysia, Putrajaya

"Census Shapes Nation's Future"



Census Shapes Nation's Future

Censuses and Their Use in 2020 Round of Censuses

Srdjan Mrkić

United Nations Statistics Division



Make Sure You're
COUNTED



MYSTATS
DAY



WORLD
STATISTICS
DAY



Historical overview

- ❑ The need to know the available resources – primarily the human capital – has been recognized by rulers since the dawn of organized societies
- ❑ Counting the people and other stock-taking, known as a “census”, dates back five thousand years - among the earliest documented censuses are the enumerations in Babylon, in China – under the Emperor Yao and in Egypt, under King Amasia, between 2800 and 2200 B.C.
- ❑ In ancient Rome, the original census is ascribed to Servius Tullius and in the constitution that goes by his name it was decreed that every fifth year the population should be enumerated along with the property of each family

Historical overview

- ❑ Population censuses, in the modern meaning of the term, were introduced largely in 17th century
- ❑ Since these times until today, censuses represent a unique and powerful tool to quantify population, social and economic phenomena and to provide invaluable understanding on the structure and capacity of each village, town and neighborhood
- ❑ At the same time, preparing and conducting a census provided innumerable generations of statisticians an exceptional learning opportunity and experience
- ❑ Over time, the census grew into a cornerstone of the national statistical system in terms of providing comprehensive small area statistics, sample frame for launching specialized surveys and anchoring the technological and methodological considerable investment in official statistics every ten years



The 2020 World Population and Housing Census Programme

- ❑ UN Statistical Commission endorsed the draft Resolution on 2020 World Population and Housing Census Programme and submitted it to the Economic and Social Council of the United Nations for adoption
- ❑ On 10 June 2015 ECOSOC adopted the Resolution – it
 - ❑ Endorses the 2020 World Programme
 - ❑ Urges each member state to conduct at least one population and housing censuses in the period 2015-2024
 - ❑ Based on international recommendations
 - ❑ Advance planning
 - ❑ Cost efficiency
 - ❑ Coverage
 - ❑ Timely dissemination
- ❑ Underscores the need for quality standards and assurance and compliance with the Fundamental Principles of Official Statistics



The 2020 World Population and Housing Census Programme

☐ Furthermore, the Resolution

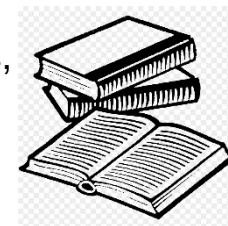
- ☐ Emphasizes the importance of the 2020 Programme for implementing and monitoring the sustainable development agenda
- ☐ Requests the United Nations to:
 - ☐ Prepare international standards, methods and guidelines
 - ☐ Ensure coordination of activities among stakeholders in assisting Member States in the implementation of the 2020 Programme
 - ☐ Monitor and regularly report on the implementation of the 2020 World Programme
- ☐ UN Statistics Division mandate
 - ☐ Developing and promoting methodological framework
 - ☐ Monitoring the implementation of the 2020 Programme
 - ☐ Reporting on the implementation
 - ☐ Provide support to national capacities (workshops, direct technical assistance)



The 2020 World Population and Housing Census Programme

Methodological framework

- ❑ Principles and Recommendations for Population and Housing Censuses, Revision 3, United Nations, 2015
- ❑ Handbook on Population and Housing Census Management, Revision 2, United Nations, 2016
- ❑ Guidelines on the Use of Electronic Data Collection Technologies in Population and Housing Censuses, United Nations, 2019
- ❑ Handbook on Measuring International Migration through Population and Housing Censuses, United Nations 2017
- ❑ Guidelines on the Use of Registers and Administrative Data for Population and Housing Censuses, United Nations Economic Commission for Europe, 2018
- ❑ Handbook on Editing for Population and Housing Censuses, United Nations, 2019
- ❑ Technical Report on Measuring SDG Indicators through Population and Housing Censuses and Civil Registration and Vital Statistics, United Nations, 2020
- ❑ Technical Report on Post-enumeration Surveys for Population and Housing Censuses, United Nations, 2010



The **general** use of population and housing censuses in 2020 Round

- ❑ Population and housing censuses are a principal means of collecting basic population and housing statistics as part of an integrated programme of data collection and compilation aimed at providing a comprehensive source of statistical information for economic and social development planning, administration, assessing conditions in human settlements, research and commercial and other uses
- ❑ A population and housing census also serves as the logical starting point for work on the organization and construction of computerized statistical products to serve continuing national and local needs for data in the intercensal period

The **general** use of population and housing censuses in 2020 Round

- ❑ Improved skills and experience: varied sets of skills are often required for administering a census that are not necessarily prominent in other parts of the organization, such as project management, procurement, and commercial, communication, human resources and information technology
- ❑ Technological advancement: often a census requires new technology to support complex data collection and processing requirements. These developments may be reused for other exercises within the national statistical office or lead to new technological developments
- ❑ New methods: the development of methods for enumerating the whole population, or statistical methods (such as editing and imputation) developed for processing census results, can often be reused for other statistical exercises within the national statistical office.
- ❑ Halo effect: the extensive promotion of the census may also have a positive effect on all other statistical data collection exercises

Uses for policymaking, planning and administrative purposes

- ❑ The fundamental purpose of the population census is to provide the facts essential to national policymaking, planning and administration
- ❑ Information on the size, distribution and characteristics of a country's population is essential for describing and assessing its economic, social and demographic circumstances and for developing sound policies and programmes aimed at fostering the welfare of a country and its population
- ❑ The population census, by providing comparable basic statistics for a country as a whole and for each administrative unit, locality and small area therein, provide unparalleled contribution to the overall planning process and the management of national affairs
- ❑ Counts of the population overall, or of subgroups within the population, by geographic region are used for the distribution of government funding and services

Uses for policymaking, planning and administrative purposes

- ❑ The performance of a democratically elected government in improving the welfare of its citizens can be monitored from one census to the other by ordinary citizens through the widespread and timely dissemination of census results
- ❑ Population censuses provide basic information for the preparation of population estimates or projections and detailed demographic and socioeconomic analysis of the population
- ❑ The census also provides data for the calculation of a number of social and economic indicators, especially Sustainable Development Goal indicators as well as those that may be observed infrequently because they measure phenomena that change slowly over time, and those that are needed for small areas or small population groups
- ❑ Education - Accurate census data are critical to local government agencies and education authorities trying to determine the need for new schools, including what type (elementary, middle, or high school).

Uses for policymaking, planning and administrative purposes

- ❑ Infrastructure, public health and environmental protection, and program planning - Numerous state and local government planning responsibilities depend on accurate census data, including determining the need for schools, highways, public transportation, hospitals, libraries, and police and fire protection
- ❑ Water and sewage disposal information helps identify needs for water purification, treatment, or sewage facilities
- ❑ Disaster relief - Accurate census information helps local governments predict transportation needs in disaster recovery and contingency planning initiatives; census data are critical to governments and relief agencies in assessing the amount of displacement and the shelter and recovery needs of populations affected by natural disasters such as floods, hurricanes, tornadoes, and earthquakes

Uses for policymaking, planning and administrative purposes

- ❑ Uses for boundaries delimitation - One of the basic administrative uses of census data is to support political and administrative mapping - detailed information on the geographic distribution of the population is indispensable for this purpose
- ❑ Drawing legislative boundaries - A compelling use of census data is in the redrawing of electoral constituency boundaries in most countries; this is often enshrined in the country's constitution and provides a legal basis for census-taking. The current distribution of a country's population is thereby used to assign the number of elected officials who will represent people in the country's legislature
- ❑ Assisting families, low-income populations, the elderly and the disabled - Accurate census data are necessary for appropriate implementation of various government programs for these groups in areas such as housing assistance, energy cost assistance, community development, employment and social services

Uses for research purposes

- ❑ In addition to serving specific governmental policy purposes, the population census provides indispensable data for the scientific analysis and appraisal of the composition, distribution and past and prospective growth of the population
- ❑ The changing patterns of urban-rural concentration, the development of urbanized areas, the geographic distribution of the population according to such variables as occupation and education, the changes in the sex and age structure of the population, and the mortality and fertility differentials for various population groups, as well as the economic and social characteristics of the population and the labor force, are questions of scientific interest that are of importance both to research and for solving practical problems of industrial and commercial growth and management.

Uses for commercial and business purposes

- ❑ Product development and marketing - Accurate census data on where people of different ages live helps businesses of all kinds to develop and market their products
 - ❑ Manufacturers of baby products such as baby food, clothes, diapers, and toys, and manufacturers of maternity clothes and greeting cards need accurate information on children as they develop and market their product lines, as do television producers of children's programs
 - ❑ Architects, contractors, and real estate firms need accurate information on the size and composition of households and their housing as they design, build, and sell houses and apartments
 - ❑ Producers of consumer durables such as television sets, washing machines, and home furnishings benefit from accurate information on households and their characteristics
 - ❑ Census provides answers to questions like: Who are my potential customers? How many live in the area? How many similar businesses are already operating nearby? How much are those competitors paying their employees? How many people have mobile phones? How many have access to the internet from home?

Uses for commercial and business purposes

- ❑ Forecasting demand - Businesses forecasting demand for their products require accurate census data to develop these forecasts
- ❑ Utilities depend on accurate census data to develop long-range plans for new facilities and networks
- ❑ Location decisions - A variety of business location decisions are improved by accurate census data – few examples
 - ❑ Businesses seeking to pinpoint areas to gauge potential markets for locating new stores, plants, or warehouses
 - ❑ Businesses interested in finding sites having a labor force with certain education characteristics
 - ❑ Building developers and contractors selecting sites for new housing developments
 - ❑ Businesses seeking to pinpoint areas of a city for locating new restaurants specializing in particular kind of food

Uses for sampling frame

- ❑ Population censuses constitute the principal source of records for construction of a sampling frame for surveys during the intercensal years on many topics, such as the labor force, fertility, migration, household consumption, and a host of in-depth statistical surveys on a number of social, economic and environmental phenomena
- ❑ An essential ingredient of probability sample design is the existence of a complete, accurate and up-to-date sampling frame - A sampling frame is a list of all (or most) of the N units in the universe.
- ❑ A sampling frame may be a list of small areas - It may also be a list of structures, households or persons
- ❑ In the 2020 round, the value of census frame increased considerably by introducing geo-referencing of enumeration units during data collection, thus resulting in ever more granular sample frame information

Uses of census individual records

❑ The essential purpose of archiving individual census records is to keep them safe for future use, primarily in the domain of genealogical research and longitudinal social and anthropological studies, as well as for use by historians, demographers and social scientists

❑ The release of archived individual census records is subject to the passage of time as per the census legislation - The defined period usually encompasses many decades, thus ensuring that the use of individual information will not endanger the confidentiality and the privacy of the respondents



Duration of time for retention of individual census records		
Duration of time – on the basis of census regulation	Total countries	
	Number (n=49)	Per cent
Kept only for as long as they are required for data processing, then destroyed	11	22
Destroyed 1- 5 years after census	12	24
Destroyed 6 - 10 years after census	6	12
Made open to public after 30 – 50 years	1	2
Made open to public after 51 – 75 years	1	2
Made open to public after 76 – 100 years	5	10
Made open to public 100 years	3	6
No decision yet on the length of time	6	12





The 2020 World Population and Housing Census Programme

Current overview

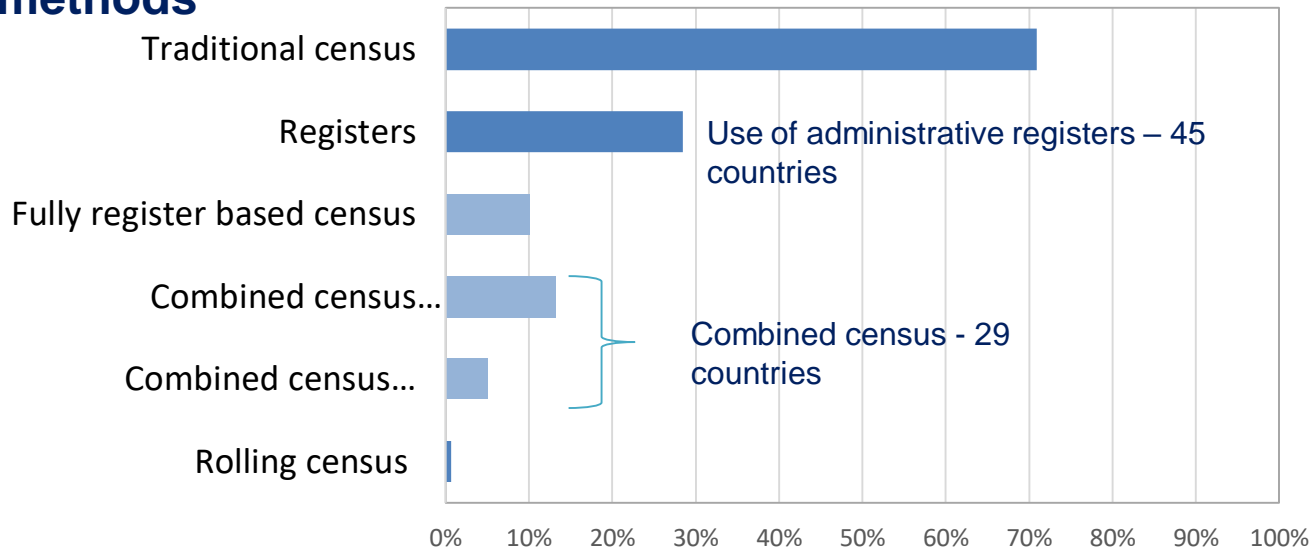
- ☐ UNSD launched a mid-round survey on the implementation of the 2020 round of censuses
- ☐ Carried out in July – September 2019
- ☐ Short list - 11 questions in total
- ☐ 158 countries replied



The 2020 World Population and Housing Census Programme

Current overview

Main census methods



Source: UNSD survey on 2020 round PHCs
Response: 158 countries



The 2020 World Population and Housing Census Programme

Current overview

Main census methods

	All 158 responding countries	Africa (38)	Asia (36)	Europe (41)	Latin America and the Caribbean (28)	Northern America (4)	Oceania (11)
	<i>Number</i>						
Traditional census	112	37	25	12	28	1	9
Fully register based census	16	0	3	12	0	1	0
Combined census - <i>Registers and full field enumeration</i>	21	1	5	11	0	2	2
Combined census - <i>Registers and sample survey</i>	8	0	3	5	0	0	0
Rolling census	1	0	0	1	0	0	0
Other	0	0	0	0	0	0	0



The 2020 World Population and Housing Census Programme

Current overview

- ❑ Majority of countries (69% of total) – traditional census – approaching each household in the country with request for information
 - ❑ However, the number of countries using registers is visibly increasing (30% of total)
- ❑ Majority – combination of enumeration methods – tablets, internet self-enumeration, paper questionnaires
 - ❑ Significant challenge – developing in parallel applications for different media, costs
- ❑ Use of GPS
- ❑ Geo-referencing (65% of total geo-referencing buildings/housing units)
- ❑ Overall, censuses are acquiring a modern and contemporary look





The 2020 World Population and Housing Census Programme

Current overview - Pandemic

- ☐ UNSD Survey – April 2020
- ☐ The survey was dispatched to 56 national statistical offices
- ☐ We have received 43 replies (78%)
- ☐ Available in full at: <https://unstats.un.org/unsd/demographic-social/census/COVID-19>
- ☐ Updates were asked for and incorporated in May
- ☐ The most recent request for updates dispatched mid-September, still being processed
- ☐ Out of initial replies, 30 countries/areas indicated that they are postponing or extending census activities
- ☐ Thirteen countries indicated that they either already conducted the census data collection, or do not expect delays at the time of replying (April 2020) or rely on registers for producing census statistics



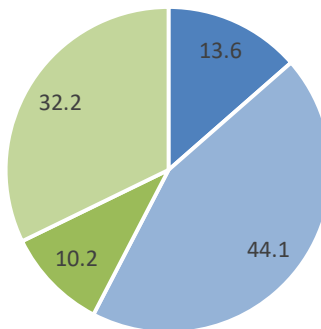


The 2020 World Population and Housing Census Programme

Current overview - Pandemic

- Another survey in June - about 60 percent of the countries had to postpone preparatory activities

Countries that had to postpone or have completed/will complete census preparatory activities (%)



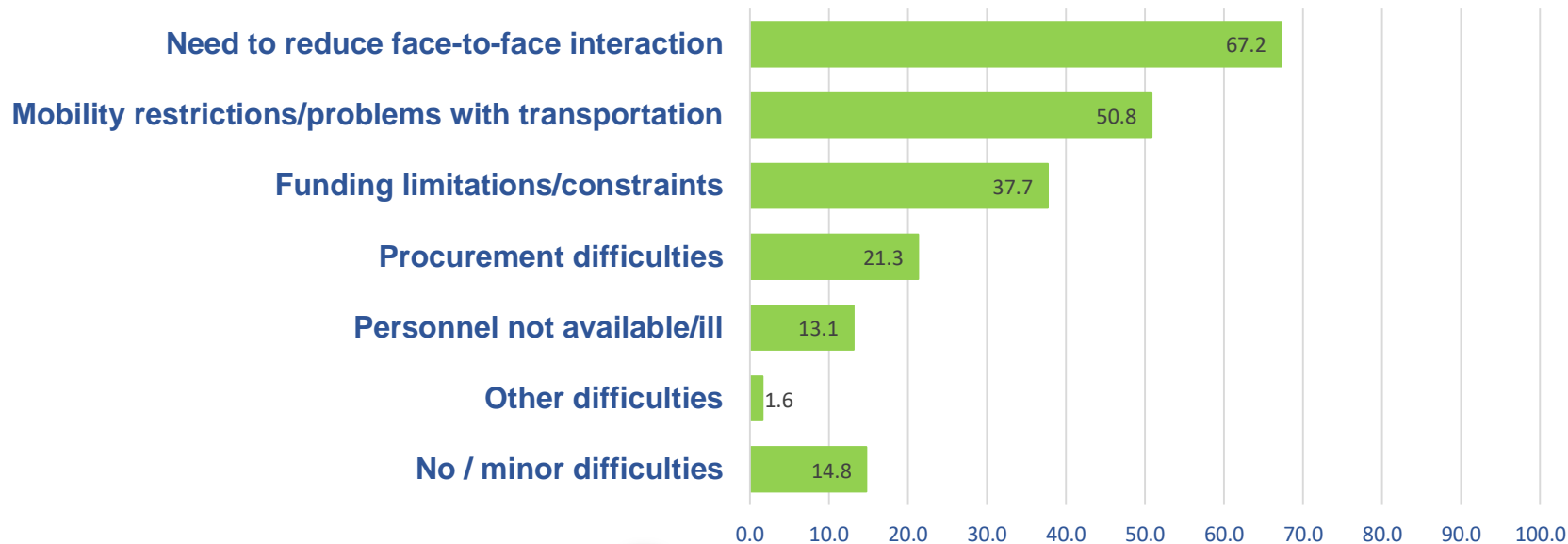
- Yes, had to postpone or cancel most/ALL of the preparatory activities
- Yes, had to postpone or cancel SOME preparatory activities
- No, have completed these activities before the COVID-19 arrival
- No, proceeded / will proceed with these activities in spite of the COVID-19



The 2020 World Population and Housing Census Programme

Current overview - Pandemic

Main difficulties in conducting population and housing censuses because of the impact of the COVID-19 pandemic (%)





The 2020 World Population and Housing Census Programme

Current overview – Concluding remarks

- ❑ Will all the Member States be in a position to conduct at least one population and housing census, or otherwise produce census-like small areas statistics, in the period 2015-2024, as required by the ECOSOC Resolution?
- ❑ Increasingly clear that countries/areas are facing substantial difficulties in conducting the census
- ❑ What will be the quality of census data in the 2020 Round?
- ❑ One of the perceived consequences of this pandemic in terms of future census taking activities points to the drastic shift from canvassing the country door-to-door to the use of registers and internet self-enumeration
- ❑ An already quite complex undertaking – combining different data collection techniques – CAPI, CAVI, PAPI – requiring development of parallel applications, became even more complicated

The 2020 World Population and Housing Census Programme

Current overview – Concluding remarks

- ❑ The population and housing census for each nation has a paramount importance in terms of understanding the past, seizing the present and shaping the future
- ❑ Observing the World Statistics Day this year, 2020, coincides with a peculiar circumstances of functioning in the middle of the pandemic
- ❑ Thus, even more challenges in terms of producing relevant, accurate and timely statistics to allow for informed decision-making
- ❑ At the same time – an opportunity – to re-visit statistical methodologies, data collection techniques and overall functioning of national statistical systems to better position themselves for the future needs of our stakeholders

THANK YOU

BANCI MALAYSIA

7.7.2020 – 21.12.2020 (e-Census)

20.1.2021 – 6.2.2021 (Face To Face)

POPULATION & HOUSING
CENSUS 2020
MALAYSIA

YOUR DATA IS OUR FUTURE



Make Sure You're
COUNTED

For More Info : www.dosm.gov.my
www.mycensus.gov.my

