United Nations Statistics Division Programme in Support of the 2020 Round of Population and Housing Censuses

Session 2

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Regional Workshop on the 2020 World Programme on Population and Housing Censuses: International standards and contemporary technologies
Ankara, Turkey, 12-15 March 2019

Resolution

- 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

Resolution

- 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

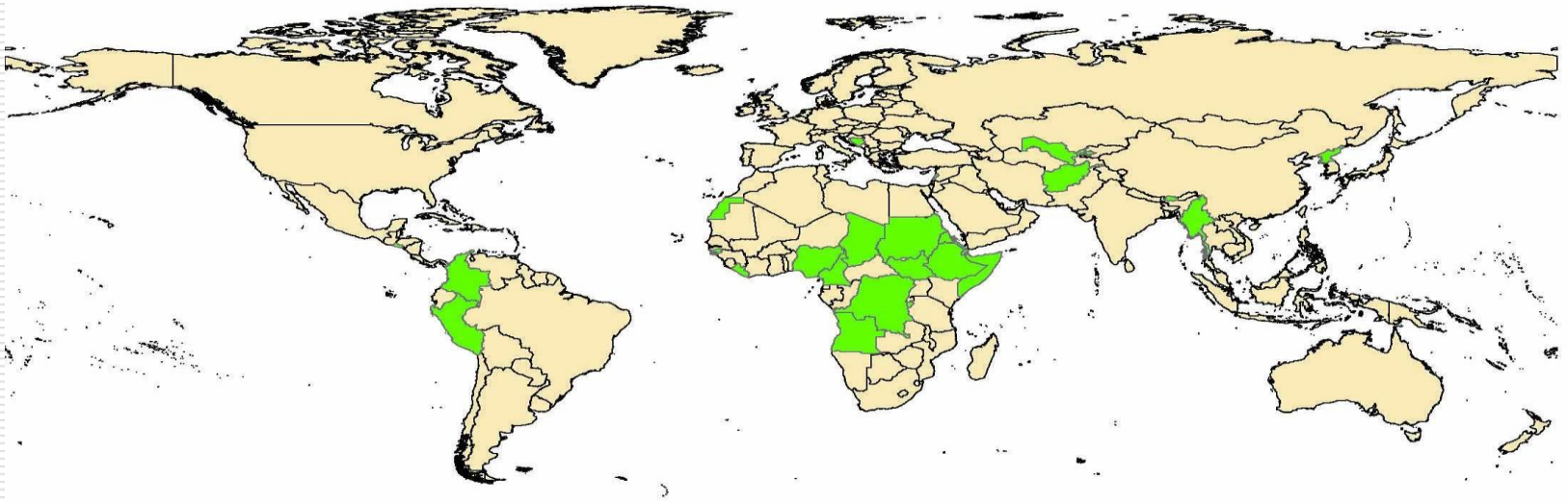
Resolution

- 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

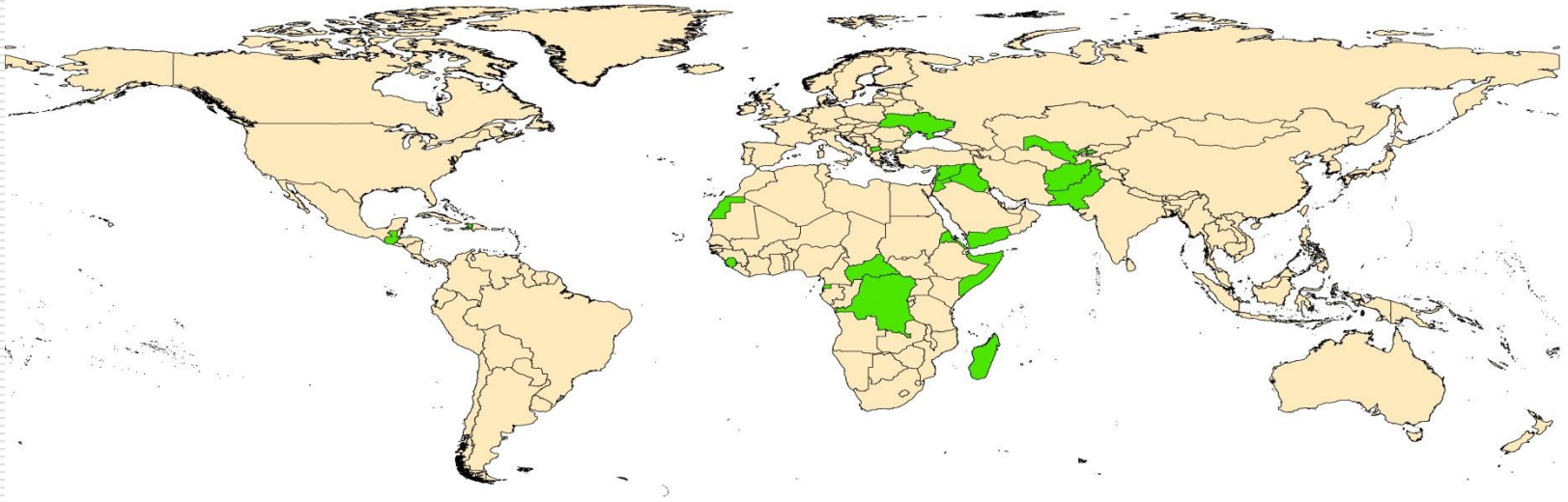
2010 Round

- Censuses conducted from 2005-2014 – 93% of world population

Region	Countries/areas census conducted	Countries/areas census not conducted	Percent not conducted
Africa	49	9	16
America, North	36	2	5
America, South	14	-	-
Asia	41	8	16
Europe	49	2	4
Oceania	25	-	-
Total	214	21	9



2000 Round of censuses



2010 Round of censuses

2010 Round

- Achievements
  - Multi-modal approaches
  - Contemporary technologies
  - Hand-held devices, internet
  - Web-based dissemination
  - Geo-spatial technologies
  - Direct collaboration between countries
  - Implementation of international standards

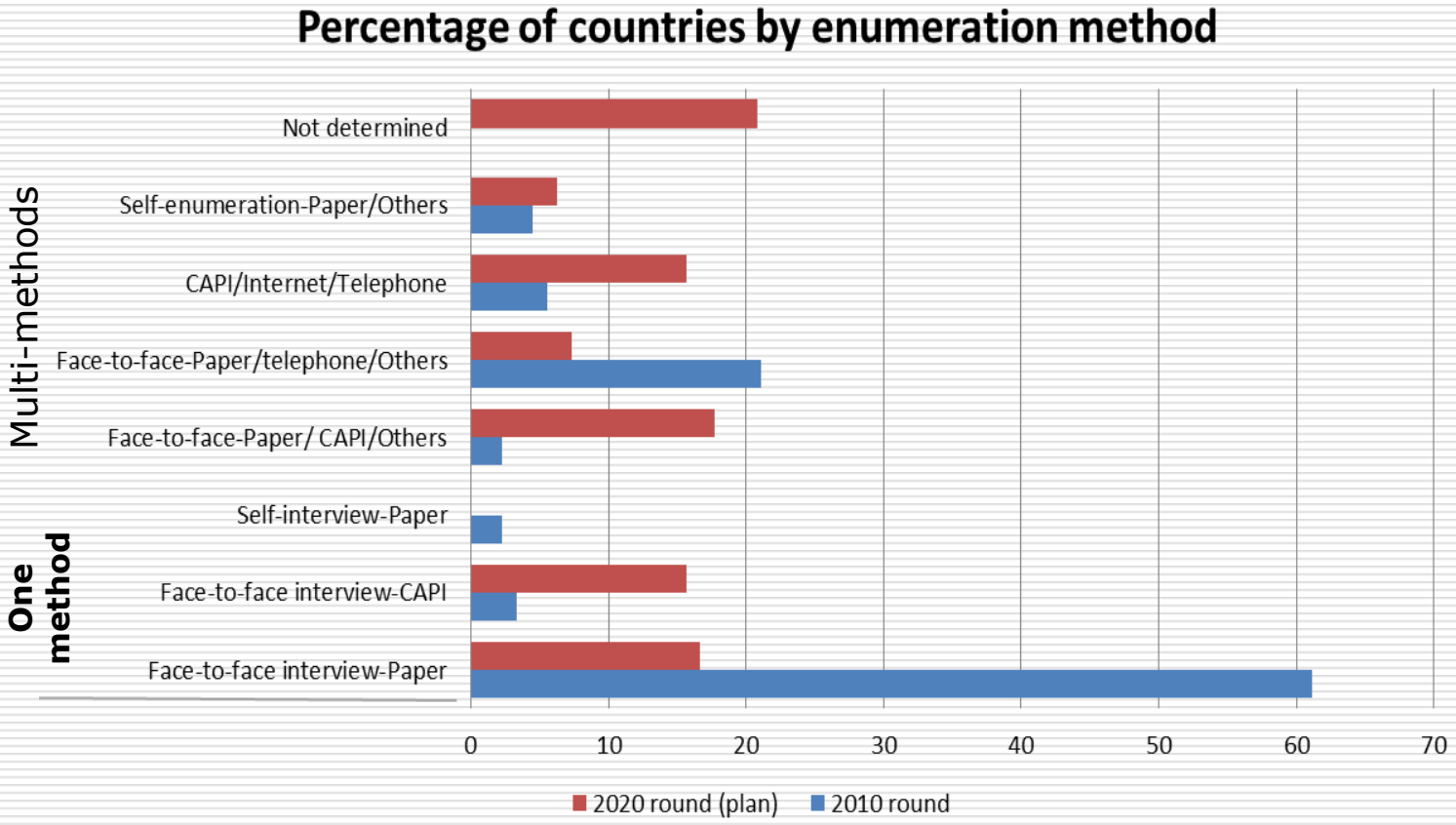
Evaluation of the 2010 Round

Main Census Methodology

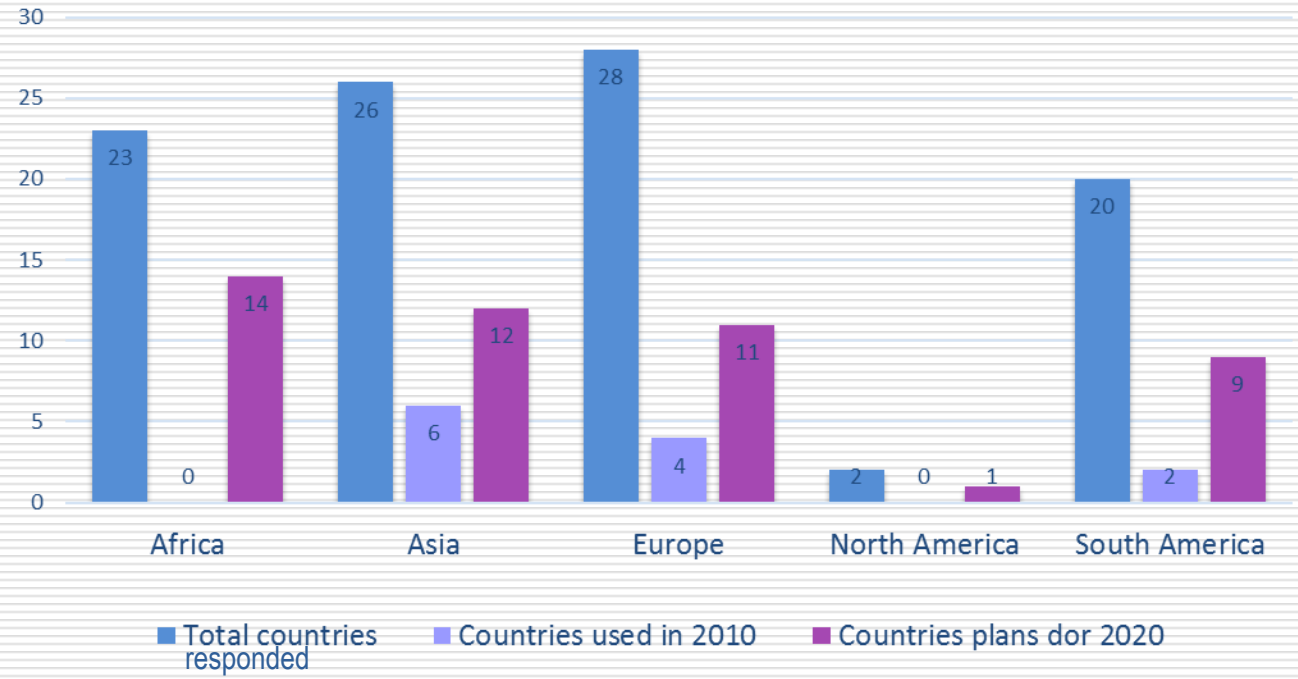
Enumeration Methods	Totals		Full Field Enumeration		Administrative Registers	
Enumeration Method	No.	%	No.	%	No.	%
Total	123	-	105	-	12	-
Face-to-Face Interviewer, Paper Questionnaire	94	76.42%	90	85.71%	1	8.33%
Face-to-Face Interviewer, Electronic Questionnaire	14	11.38%	9	8.57%	3	25.00%
Telephone	14	11.38%	10	9.52%	2	16.67%
Self-Enumeration, Paper Questionnaire, Collected by Enumerators	30	24.39%	28	26.67%	0	0.00%
Self-Enumeration, Paper Questionnaire, Return by Mail	18	14.63%	13	12.38%	2	16.67%
Self-Enumeration, Internet	33	26.83%	26	24.76%	3	25.00%
Register-Based Enumeration	18	14.63%	5	4.76%	10	83.33%
Pre-existing Administrative Records	8	6.50%	4	3.81%	1	8.33%
Other	2	1.62%	2	1.90%	0	0.00%

Source: UNSD survey conducted in 2013

Practices in 2010 round and plans for 2020 round

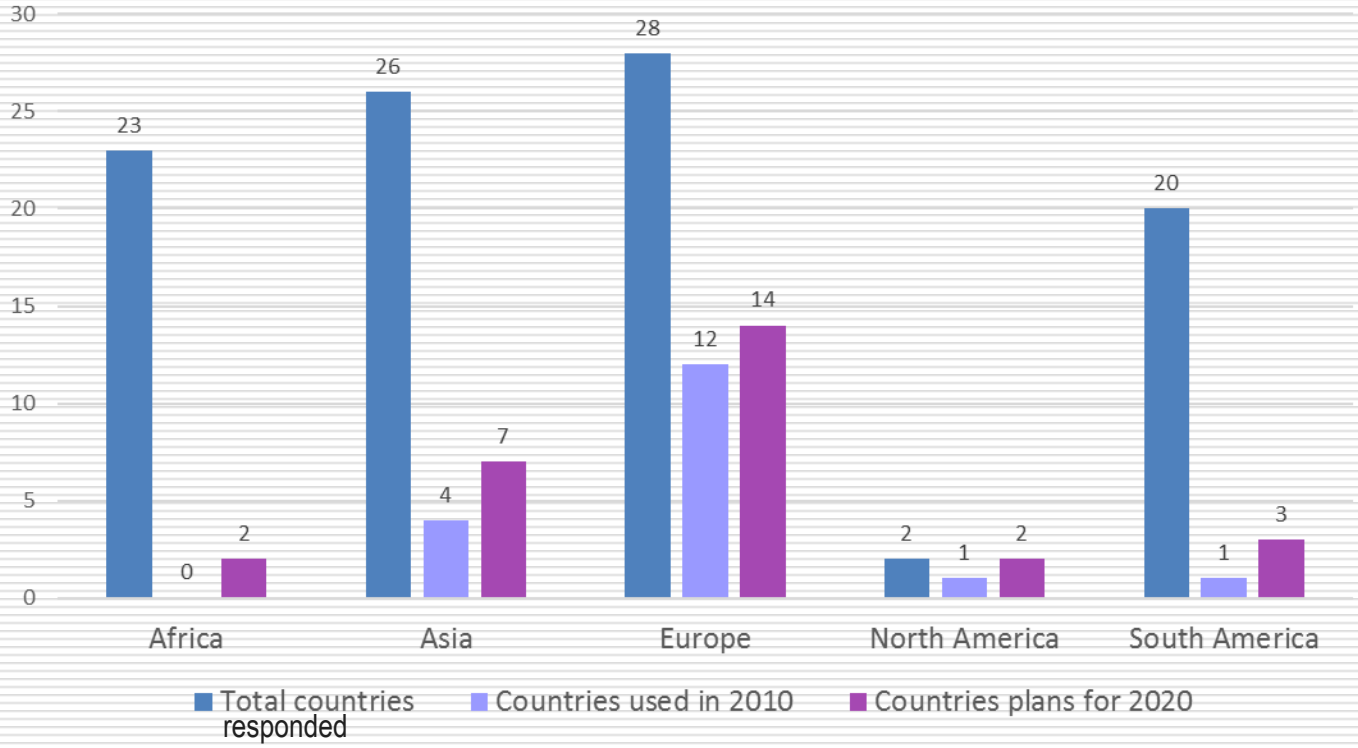


Use of CAPI in 2010 and plans for 2020



Source: 2016 UNSD survey- 123 countries responded

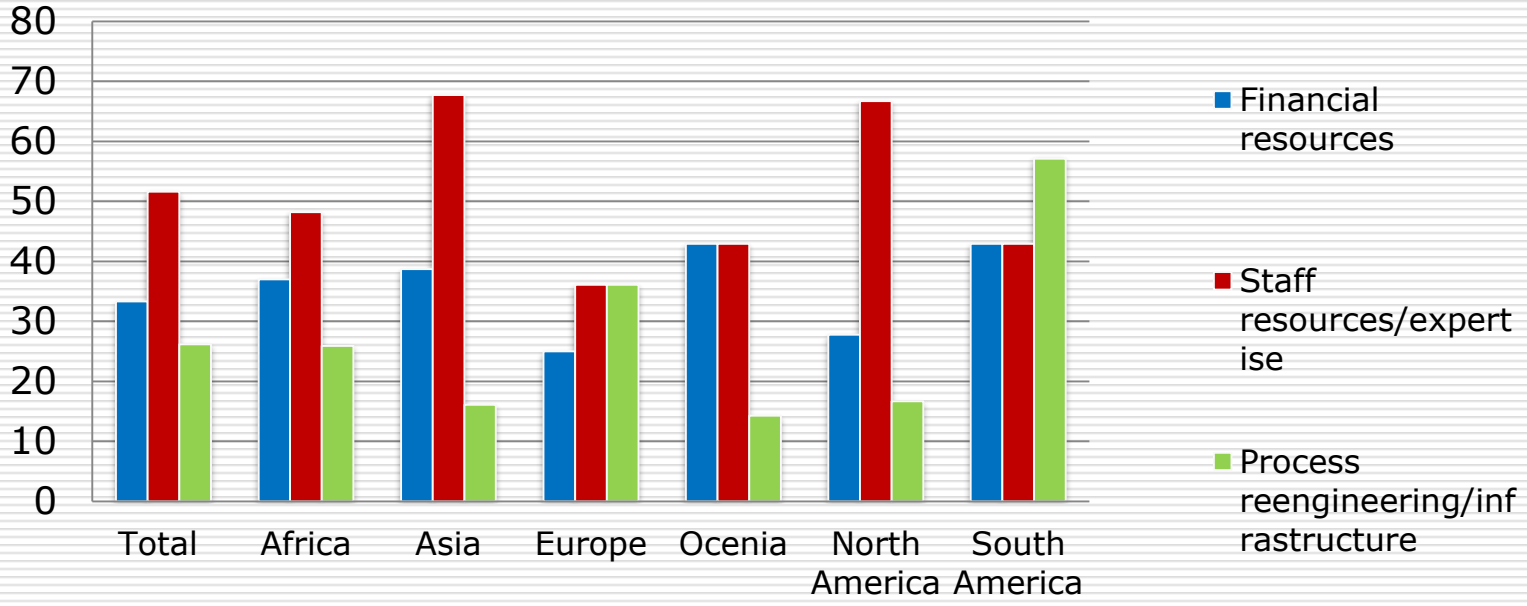
Use of Internet in 2010 and plans for 2020



Source: 2016 UNSD survey- 123 countries responded

Lessons learnt in 2010

Percentage of countries by obstacles faced in the use of new technologies during the 2010 census round (%)



Source: UNSD survey conducted in 2012
126 countries responded

Trends in the use of technology

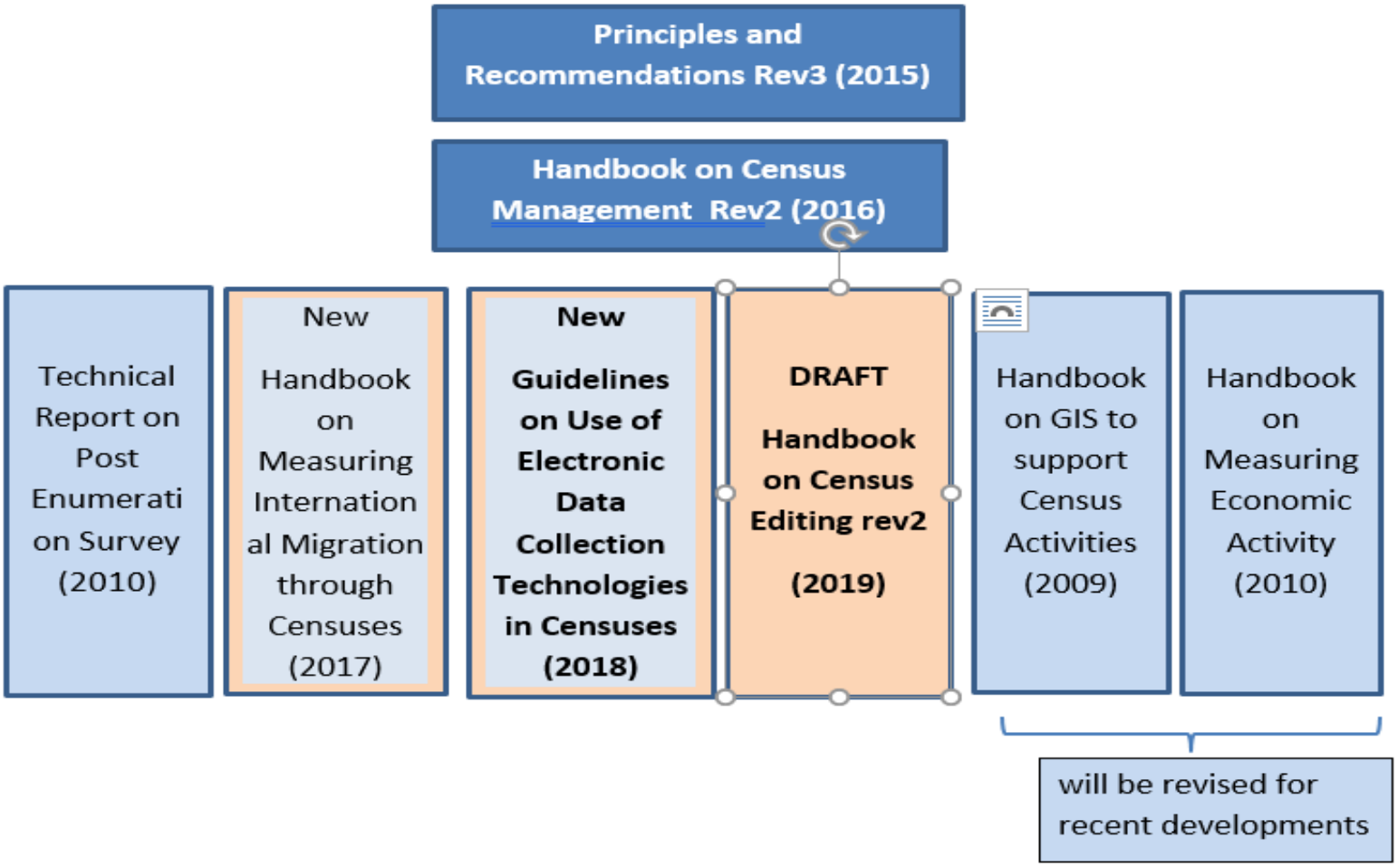
Census Rounds					
	Before 1990	1990	2000	2010	2020
Mapping	Sketch	Digital Sketch	Digital Sketch	Digital Georeferenced data Sketch	
Enumeration	Paper questionnaire	Paper questionnaire	Electronic questionnaire – Internet Paper questionnaire	Electronic questionnaire – Internet, hand-held devices and telephone Real-time monitoring Paper questionnaire	
Data Processing	Manual data capture	Optical data capture Manual data capture	Optical data capture Manual data capture	Optical data capture Automatic data capture (Internet and hand-held devices) Web-based manual data capture Manual data capture	
Dissemination	Paper publication		Paper publications Online / digital publications	Online interactive databases Digital publications Paper publications	

2010 Round

- Challenges
  - Census costs
  - Timeliness in releasing data
  - Public perception and cooperation
  - Low response rates
  - Managing the outsourcing of census operations
  - Inadequate and insufficient exploitation of census statistics

2020 Round

- UNSD mandate
  - Developing and promoting methodological framework
  - Monitoring the implementation of the 2020 Programme
  - Reporting on the implementation
  - Provide support to national capacities


Principles and Recommendations Rev3 (2015)
Handbook on Census Management Rev2 (2016)
Technical Report on Post Enumeration Survey (2010)
New Handbook on Measuring International Migration through Censuses (2017)
New Guidelines on Use of Electronic Data Collection Technologies in Censuses (2018)
DRAFT Handbook on Census Editing rev2 (2019)
Handbook on GIS to support Census Activities (2009)
Handbook on Measuring Economic Activity (2010)
will be revised for recent developments

Principles and recommendations

- United Nations Statistical Commission established in 1946
- Developing international standards for official statistics
- In the field of population and housing censuses
  - Population Census Methods (1949)
  - Principles and Recommendations for National Population Censuses (1958)
  - General Principles for a Housing Census (1958)
  - Principles and Recommendations for the 1970 Population Censuses (1969)
  - Principles and Recommendations for Population and Housing Censuses (1980)
  - Principles and Recommendations for Population and Housing Censuses, Revision 1 (1998)
  - Principles and Recommendations for Population and Housing Censuses, Revision 2 (2008)
  - Principles and Recommendations for Population and Housing Censuses, Revision 3 (2015)

Principles and Recommendations, Revision 3

- Four parts
  - Essential features and census methodology
    - Definitions
    - Essential features
    - Census methodology
  - Planning, organization and management
    - Strategic objectives
    - Legal basis
    - Use of technology
    - Quality assurance
  - Census operations activities
    - Census infrastructure
    - Mapping
    - Data processing
    - Dissemination
  - Population and housing census topics

Handbook on the Management of Population and Housing Censuses, Revision 2

- Based on the *Principles and Recommendations*
- *Handbook on the Management of Population and Housing Censuses, Revision 2*
- Eight chapters
  - I. Essential characteristics
  - II. Planning, organization and administration
    - Overall census planning
    - Plans for enumeration
    - Administrative organization and management structure
    - Census legislation
    - Census calendar
    - User consultation
    - Communication and publicity
    - Financial management
    - Procurement
    - Contracting out
    - Use of technology
    - Documentation
    - Quality assurance

Handbook - continued

- III. Pre-enumeration operations
  - Mapping
  - Questionnaire content and design
  - Testing and evaluating census questions and procedures
  - Instruction manual preparation
  - Recruitment and payment
  - Field staff training
  - Logistics for census materials
- IV. Field enumeration
  - Enumeration
  - Monitoring and management of field enumeration
  - Quality assurance for field enumeration
  - Type of technology for field enumeration

Handbook - continued

- V. Data processing
  - Processing strategies
  - Location of processing centers
  - Establishing the workforce structure and recruiting staff
  - Processing operations
  - Technology issues for processing
  - Quality assurance for data processing
- VI. Census products, dissemination and utilization
  - Dissemination strategy
  - User consultation process
  - Broad product strategy
  - Product development
  - Product dissemination and promotion for utilization

Handbook - continued

- VII. Evaluation
  - Planning and implementation
  - Basic measurements of overall quality
  - Methods of evaluation
  - Communicating data quality issues
- VIII. Documentation and archiving
  - Documentation
  - Archiving
  - Digital preservation
  - Digital migration

Guidelines on the use of electronic data collection technologies

- It aims to serve as a reference for:
  - Identification of key factors for making sound decision on the use of electronic data collection technologies
  - Strengthening national capacity for effective adoption of the selected technology
  - Designing census processes with the use of hand-held devices and/or Internet
  - Developing strategies for maximizing the benefits from this investment

Guidelines on the use of electronic data collection technologies

- The guidelines elaborate on:

  (the content prepared through the global technical meeting in Dec 2016)

  - **Overview of data collection methods** including multi-mode data collection approaches
  - **Decision-making in adoption of electronic data collection technologies**
    - Key determinants: institutional, technological, economic, social/cultural factors
    - Information required for decision making (cost estimates, benefits, risks, timetable, plans for reuse/disposition, success criteria, assumptions, etc.)

Guidelines on the use of electronic data collection technologies

- The guidelines discuss:
  - **Planning and preparation considerations**
    - Institutional capacity development
    - IT acquisition management
    - IT systems development
    - Use of geospatial technology for census preparation
    - Supportive systems- Call center, MIS,..
    - Testing IT systems and processes
    - Contingency planning
    - Information and system security

Guidelines on the use of electronic data collection technologies

- The guidelines discuss :
  - **Data collection with handheld devices**
    - Important features of handheld devices
    - Data collection application (essential features, design and performance considerations, etc.)
    - Data transmission and security
    - Use of geospatial technology during enumeration
    - Testing data collection applications and systems
    - Field operation, management and monitoring
    - Reuse/disposition of devices

Guidelines on the use of electronic data collection technologies

- The guidelines discuss :
  - **Data collection with Internet**
    - Benefits – cost, quality, respondent burden, improving coverage
    - Requirements for adoption – high literacy, internet access, public trust, quality of address frame
    - Data collection application and portal
    - Implementation approaches- choice among other modes, sole initial means to respond
    - Identification of respondents (unique access code)
    - Management and monitoring
    - Security
    - Support to respondents

Guidelines on the use of electronic data collection technologies

- Collaborative approach for drafting the guidelines with the participation of countries and international organizations
  - Current version in front of you

- Live document – will be updated for:
  - significant changes in adoption of the technology
  - technological changes
  - good country practices

Programme of work for 2019 – partial overview

- Promoting the *Principles and Recommendations*, the *Handbook* and the draft *Guidelines*
- Series of workshops in partnership with international and regional organizations
- Finalizing the *editin and GIS handbooks*
- Regular activities related to monitoring the implementation of the 2020 round of censuses
- Regular activities in providing assistance to countries