The 2010 Round of Population and Housing Censuses: Experiences of OIC Member Countries

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United Nations Statistics Division
Summary

- Implementation of 2010 census round

- Country experiences
  - Census methodology
  - Enumeration methods
  - Use of technology
  - Methods of data dissemination
  - Collaboration among countries
  - Successes/achievements
  - Challenges experienced
Implementation of 2010 census round

- As of 1 February 2013
  - 198 countries already conducted census
  - Population enumerated = 6.2 billion representing 89% of world population
Implementation of 2010 census round (contd.)

- More countries undertaking a census in 2010 round than in 2000 round
  - 26 did not conduct a census for 2000 round
  - Only 7 countries with no information on plans for 2010 round
  - 25 countries rescheduled their censuses for 2010 round (20%)
    - Initially, 2010 was peak year for census taking for 2010 round
    - Due to postponements, 2011 became peak for the round

- Reasons for postponement include:
  - Budgetary constraints
  - Technical issues
  - Lack of skilled staff
  - Political situations
Implementation of 2010 census round in OIC Member Countries

- Census conducted – 37 countries
- Census planned – 15
  - 2013 – 9 countries
  - 2014 – 6 countries
- No information on census plans – 5 countries (Iraq, Lebanon*, Pakistan, Somalia, Uzbekistan)
Surveys on country experiences during 2010 round

- Mid-2011 and early 2012 UNSD and USCB conducted survey on country practices for 2010 censuses

- Objectives of the survey
  - Document early lessons learned from the 2010 round
  - Identify preliminary recommendations for the Statistical Commission to consider as planning begins on the 2020 World Programme on Population and Housing Censuses

- 2009-2010 UNSD survey
Responses to the surveys

- **2011/2012 survey**
  - 126 countries world-wide responded to survey
  - 27 OIC Member Countries

- **2009/2010 survey**
  - 138 countries world-wide
  - 34 OIC Member Countries
Salient findings from surveys

- Changes in how countries conduct censuses
  - Increase in use of alternative methodologies from 2000 round
  - Use of multiple sources to generate census data
  - Multi-mode enumeration methods
  - Increased use of improved technology in all phases of census
    - Implementation of new technologies most cited successful aspect of census

- Reasons for changes:
  - Reduce cost of census
  - Improve quality of data
  - Improve timeliness of dissemination of census results
Main methodology for census

In 2010 census round:

- Full field enumeration still dominant methodology for population and housing censuses
  - Globally: 105 countries - (85%)
  - OIC: 25 countries – (93%)

- Use of alternative methodologies (administrative registers or other methods)
  - Globally: 18 countries – (15%)
  - OIC: 2 countries – (7%)

- Application of alternative methods not uniform across countries and needs careful documentation and study
## Use of other sources of data

<table>
<thead>
<tr>
<th>Data source</th>
<th>Total countries</th>
<th>OIC countries</th>
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<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
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<tr>
<td>Administrative registers</td>
<td>33</td>
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<tr>
<td>Pre-existing administrative records</td>
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<td>9</td>
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<tr>
<td>Annual or other regular surveys</td>
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<tr>
<td>Ad hoc sample surveys</td>
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<td>15</td>
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<tr>
<td>Other</td>
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<td>9</td>
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### Use of multi-sources of data

<table>
<thead>
<tr>
<th>Data source</th>
<th>Full field enumeration</th>
<th></th>
<th>Admin. registers &amp; others</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Total world</td>
<td>OIC countries</td>
<td>Total world</td>
<td>OIC countries</td>
</tr>
<tr>
<td>Administrative registers</td>
<td>26</td>
<td>25</td>
<td>4</td>
<td>16</td>
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<td>0</td>
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<td>16</td>
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<td>24</td>
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<tr>
<td>Ad hoc sample surveys</td>
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<td>11</td>
<td>3</td>
<td>12</td>
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<tr>
<td>Other</td>
<td>9</td>
<td>9</td>
<td>2</td>
<td>8</td>
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Seminar on Population and Housing Census Practices of OIC Member Countries
6 – 8 March 2013, Ankara, Turkey
## Enumeration methods

<table>
<thead>
<tr>
<th>Enumeration method</th>
<th>Total World</th>
<th>OIC countries</th>
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<tr>
<td></td>
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</tr>
<tr>
<td>Face-to-face interviewer, paper questionnaire</td>
<td>94</td>
<td>75</td>
</tr>
<tr>
<td>Face-to-face interviewer, electronic questionnaire</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Telephone</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Self-enumeration, paper questionnaire, collected by enumerators</td>
<td>30</td>
<td>24</td>
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<tr>
<td>Self-enumeration, paper questionnaire, return by mail</td>
<td>18</td>
<td>14</td>
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<tr>
<td>Self-enumeration, internet</td>
<td>33</td>
<td>26</td>
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<tr>
<td>Register-based enumeration</td>
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<td>14</td>
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<tr>
<td>Pre-existing administrative records</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total countries</td>
<td>126</td>
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</table>
### Use of technology during 2010 round

<table>
<thead>
<tr>
<th>Technology used</th>
<th>Total world</th>
<th></th>
<th>OIC countries</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Internet</td>
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<td>43</td>
<td>12</td>
<td>44</td>
</tr>
<tr>
<td>Laptop computers</td>
<td>31</td>
<td>26</td>
<td>7</td>
<td>26</td>
</tr>
<tr>
<td>Hand-held/pocket computers</td>
<td>10</td>
<td>9</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Tablet computers</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Geographical information systems (GIS)</td>
<td>75</td>
<td>64</td>
<td>20</td>
<td>74</td>
</tr>
<tr>
<td>Computer-assisted coding</td>
<td>57</td>
<td>49</td>
<td>10</td>
<td>37</td>
</tr>
<tr>
<td>Optical mark reading/recognition (OMR)</td>
<td>38</td>
<td>32</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Optical character reading/recognition (OCR)</td>
<td>49</td>
<td>42</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>Other imaging techniques and scanner devices</td>
<td>44</td>
<td>38</td>
<td>10</td>
<td>37</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
<td>21</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>None of the above</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>
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
    - 68% for 34 responding OIC Member Countries
  - 74% use GPS/GIS
    - 79% for OIC Member Countries
  - 25% aerial photography
    - 9% for OIC Member Countries
  - 24% satellite imagery
    - 21% for OIC Member Countries

Source: UNSD survey conducted in 2009-2010
Use of technology (contd.)

- Predicted cost or time savings by using new technology
  - Yes: 79 – 76%
    - OIC: 18 – 67%
  - No: 25 – 24%
    - OIC: 5 – 19%

- Realized cost or time savings by using new technology
  - Yes: 70 – 74%
    - OIC: 17 – 63%
  - No: 25 – 26%
    - OIC: 4 – 15%
Use of technology (contd.)

Benefits of using new technology
- Time savings - 62% ~ (OIC: 67%)
- Improved data quality - 57% ~ (OIC: 67%)
- Improved coverage - 37% ~ (OIC: 52%)
- Cost savings - 36% ~ (OIC: 41%)
- Increased participation/response rates - 23% ~ (OIC: 26%)

Risks of using new technology
- Increased cost - 29% ~ (OIC: 30%)

Obstacles faced in use of new technology
- Staff resources/expertise - 52% ~ (OIC: 56%)
- Financial resources - 37% ~ (OIC: 30%)
Contracting out use of technology

- Yes: 49% ~ (OIC: 22%)
- No: 51% ~ (OIC: 65%)

Successes about contracting out use of technology:
- Contract management: 42% ~ (OIC: 50%)
- Staying within scope: 51% ~ (OIC: 33%)
- Adhering to budget: 53% ~ (OIC: 33%)
- Adhering to schedule: 55% ~ (OIC: 50%)
- Improved census integration: 46% ~ (OIC: 50%)

Challenges of contracting out use of technology:
- Contract management: 29% ~ (OIC: 33%)
- Adhering to schedule: 25% ~ (OIC: 33%)
- Adhering to budget: 24% ~ (OIC: 17%)
Contracting out use of technology (contd.)

- More in-depth analysis of results on previous slide is needed to show successes and challenges by census methodology
Data dissemination – primary method

- Primary method of data dissemination
  - Paper publications
    - 66 - 52%
    - OIC: 19 - 70%
  - Static web pages (html, pdf, Excel)
    - 34 - 28%
    - OIC: 4 - 15%
  - Interactive online databases
    - 17 - 14%
    - OIC: 2 - 7%
Collaboration among countries

Areas in which collaborated with other countries

- **Total**
  - Data dissemination - 27%
  - Questionnaire design - 21%
  - Alternative methodologies - 21%
  - New technologies - 18%

- **OIC**
  - Data dissemination, questionnaire design - 37%
  - New technologies - 26%
  - Alternative census methodologies - 22%
  - Cartography, data collection, data capture, data analysis, PES - 19%
  - Data processing - 15%
Successes in 2010 round

- Implemented new technologies
  - Global: 70 - 56%
  - OIC: 15 - 56%

- Met deadlines
  - Global: 62 - 49%
  - OIC: 11 - 41%

- Kept within a budget
  - Global: 59 - 47%
  - OIC: 10 - 37%

- Improved/maintained data quality
  - Global: 58 - 46%
  - OIC: 15 - 56%
Successes in 2010 round (Contd.)

- Improved logistics and coordination
  - Global: 56 - 44%
  - OIC: 15 – 56%

- Improved data dissemination
  - Global: 50 - 40%
  - OIC: 13 – 48%

- Improved/maintained response/participation rates
  - Global: 47 - 37%
  - OIC: 10 – 37%

- Implemented new methodologies
  - Global: 46 – 37%
  - OIC: 9 – 33%
Challenges during 2010 round

- **Cost**
  - Global: 88 - 70%
  - OIC: 18 - 67%

- **Timeliness**
  - Global: 56 - 44%
  - OIC: 13 – 48%

- **Data quality**
  - Global: 43 - 42%
  - OIC: 10 – 37%
Challenges during 2010 round (Contd.)

- Public perception
  - Global: 46 - 37%
  - OIC: 8 - 30%

- Response rates
  - Global: 45 - 36%
  - OIC: 8 - 30%

- Privacy
  - Global: 37 - 29%
  - OIC: 3 - 11%
Challenges for the 2010 round

In spite of achievements during 2010 round, still challenges:

- Use of new technology (scanning, GIS, PDA)
- Financing for the census
- Lack of adequate skilled personnel
- Institution of anonymization procedures for dissemination of micro-data
- Census evaluation (both operation and data)
- Public concerns over privacy issues
- Enhancing statistical literacy of basic data users
- Implementing alternative approaches to traditional census
- Political situations
Thank You!