

Webinar Regional Hub in Brazil

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Use of Mobile Phone Data (MPD) for official statistics

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Introduction – ITU's ICT statistics work



Facts and figures



ICT prices



Universal and meaningful connectivity targets



Big data



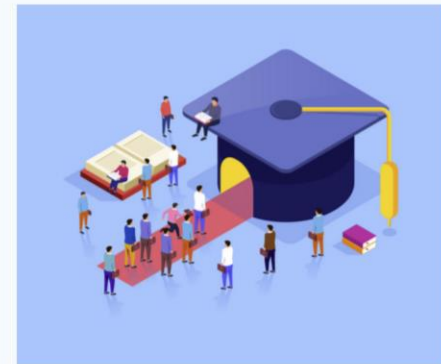
Expert groups



Partnerships



Standards and definitions



Capacity development

Overview - Information society indicators included in the SDG monitoring framework – collected by ITU



- Target 4.4: Proportion of youth/adults with ICT skills, by type of skills
- Target 5b: Proportion of individuals who own a mobile telephone, by sex



- **Target 9c: Percentage of the population covered by a mobile network, broken down by technology**



- Target 17.6: Fixed Internet broadband subscriptions, broken down by speed



- **Target 17.8: Proportion of individuals using the Internet**

ITU Big Data work

1st pilot: 2016-2018

- ✓ 6 countries (Colombia, Georgia, Kenya, Philippines, Sweden, UAE)
- ✓ 16 ICT indicators (administrative data)

2nd pilot: 2020-2021

- ✓ Brazil, Indonesia
- ✓ 2 SDG ICT indicators
 - ✓ 9.c.1 - Percentage of population covered by mobile network: 2G, 3G and 4G and above (administrative data)
 - ✓ 17.8.1 - Percentage of population using the Internet (household survey data)

Ongoing: 2023-present

- ✓ Liberia, Malaysia, Mongolia, Tunisia, Uruguay, Uganda



Requirements for MPD implementation

- **Stakeholder cooperation**
 - Ministries
 - Telecom Regulator
 - National Statistics Office
 - Data protection agency
- **MNOs**
- **Methods/Guides**
- **Skills**

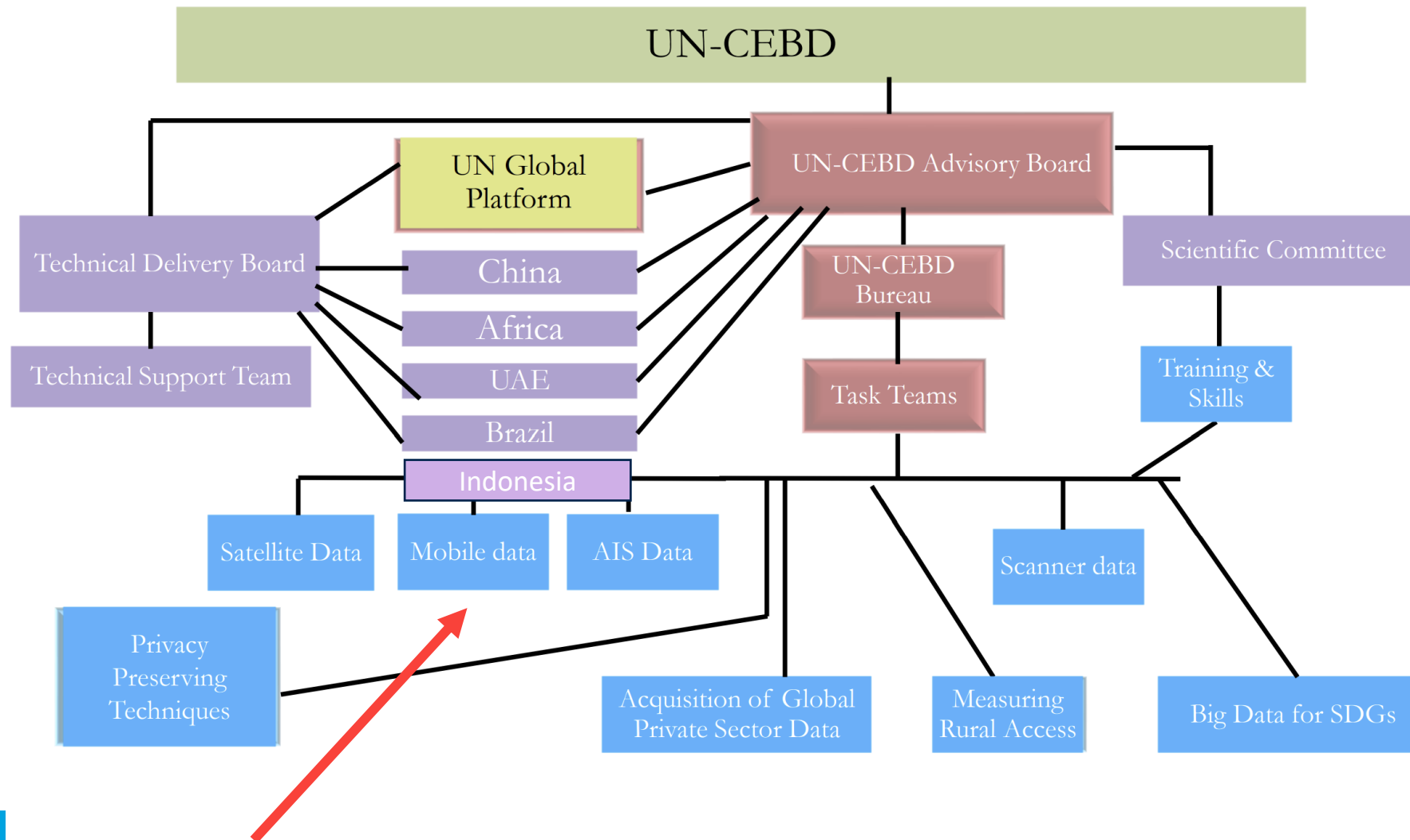


Requirements for MPD implementation

- **Data access**
 - Operator-led
 - Agency-led
 - Public-private partnership
- **Big data infrastructure**
- **International support**



UN Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD)



UN-CEBD Task Team on Mobile Phone Data (MPD)

- Established since the inception of the UN Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD)
- Explore the use of mobile phone big data for the different areas of statistics and develop methodologies
- Composed of around 50 individual members/ 30 entities - international and regional agencies, countries, academia, private agencies/companies
- Meets (virtually) once a month to discuss issues related to the deliverables, events, and other activities

Lead: ITU

Members:

- Brazil
- Colombia
- Gambia
- Georgia
- India
- Indonesia
- Italy
- Japan
- Korea
- Malaysia
- Mexico
- Netherlands
- Oman
- Qatar
- Philippines
- Romania
- Saudi Arabia
- United Arab Emirates
- Viet Nam
- EU JRC
- Eurostat
- IMF
- IOM
- UNFPA
- UNGP
- UNSD
- World Bank
- OECD-ITF
- UN-ECE
- Flowminder
- GSMA
- Positium
- Telenor

Types of Applications (covered by the UN-CEBD Task Team on MPD)

Disaster Management

- Displacement monitoring
- Disaster preparedness

Dynamic Population Mapping

- Population statistics
- Public health

Migration

- Domestic migration
- Seasonal workers
- Cross-border commuting

Tourism

- Inbound, domestic and outbound tourism statistics

Transportation

- Commuting statistics
- Travel demand modeling

Information Society

- ICT statistics

Example: Guideline on Big Data for measuring the SDG Information society indicators (Lead: ITU)

1. Introduction
2. Background
3. Access and preparations
4. Data sources (description of mobile operator data, quality assurance of raw data)
5. Reference data (local admin units, world population, cell data, digital elevation, household survey data)
6. Data processing (models, data protection guidelines)
7. Calculating the indicators (rationale, definition, indicators calculation, quality assurance)
8. Quality assurance
9. Conclusions

- with experiences and examples from country pilots

<https://unstats.un.org/bigdata/task-teams/mobile-phone/index.cshtml>



Recommendations

- Think of MPD as any new data in a statistical business process
- Assess the current situation - data is governed by privacy, telecommunication legislation, and operator internal rules
- Coordinate with all stakeholders to avoid surprises
- Discuss and agree on all elements, including publication of results, prior to starting the project
- Set realistic timeline - often time-consuming process
- “Start small” - sample data helps to design the solution and establish feasibility for statistics
- Learn from others - Join the MPD Task Team
- Get international support (ITU-WB project on MPD for policy)



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Additional resources

- [UN Big data task team on mobile phone data](#)
- [ITU Big Data pilots](#)
- [Online training course on mobile phone data](#)

Or contact us at:
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Thank you!

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