

# ITUWTIS

GENEVA2024



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# Mobile phone data (MPD): **From methods to Implementation**

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**ITU**WTIS  
GENEVA2024



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# Applications of mobile phone data in statistics



**1) Tourism  
statistics**

**2) Migration  
statistics**

**3) Census and  
dynamic  
population**

**4)  
Displacement  
in disaster  
context**

**5) Information  
society  
indicators**

**6) Transport  
and commuting  
statistics**

## ITU work on mobile phone data - 2024

- ITU leads the **Task Team on MPD** of the [UN Committee of Experts on Big Data and Data Science for Official Statistics](#)
- **ITU Jupyter Notebooks** – presented earlier
- **Webinars** conducted on ICT statistics with the UN-CEBD Africa regional hub (May and June 2024)
- Technical assistance to **Malaysia** on how to implement MPD ICT use case using ITU Jupyter Notebooks (Sept 2024)
- **International Conference on Big Data:** Organized sessions on the use of MPD for official statistics; live demo sessions on ITU Jupyter Notebooks (June 2024)
- **International Seminar on Data Science for the Statistics:** Organised and ran workshop on the use of MPD (January 2024)
- **ITU-World Bank project on using MPD to work for policy (GDF-MPD):** Theory of Change and Maturity Assessment for MPD; assessment of country proposals and selection of beneficiary countries; Kick-off workshop with beneficiary countries

## Global Data Facility (GDF):

### Partnership to Put Mobile Phone Data (MPD) to Work for Policy





## **Presented in WTIS 2023:**

### Objectives

- Deliver programmatic support to put MPD to work for Policy
- Promote open MPD standards, tools, and practices
- Promote operational research to improve evidence-base and policy impact of MPD
- Use GDF-MPD grants to facilitate lending programs in integrated national data systems and public data infrastructure



## | ITU-WB collaboration on using MPD to work for policy

- **Aspiration:** Operationalize the responsible use of MPD for policy and official statistics in 30 countries. Put this data to work for dynamic insights and actions to tackle migration, disaster, epidemics, information society and more.
- **Where to play:** in national mobile phone data ecosystems with public and private stakeholders to foster ownership, shared value, sustainable capabilities and responsible use
- **How to win:** Integrated and comprehensive approach to develop local capacity through phased engagements that invest in public private partnerships, and institutional enablers and safeguards.
- **Capabilities/Systems Needed:** WB grant window management; Partnership management; Training Content, Delivery Management; Collaborative Code and Learning Management Systems; etc



# MPD Maturity Framework: Country Selection & Implementation

Stage	Implementation
<b>Pre-foundation</b>	<ul style="list-style-type: none"><li>• No MPD being shared or analysed (except internal BI by DC).</li><li>• Data controller(s) and data user(s) are in negotiation but no agreement has been signed, no regulatory has been sought or approved and/or no legal basis has been established.</li><li>• Some potential applications have been identified in broad terms, but there are no plans for implementation.</li></ul>
<b>Foundation</b>	<ul style="list-style-type: none"><li>• There is some initial building of capacity and technical infrastructure for the (small-scaled) storage and processing of MPD but no export or analysis of MPD (except internal BI).</li><li>• MPD only available for a short period of time (e.g. most recent 6 months)</li><li>• Data controllers(s) and user(s) are in alignment and seeking engagement with regulators and other stakeholders.</li><li>• Some applications identified in some detail, with plans for pilots/proofs of concept.</li></ul>
<b>Practitioner</b>	<ul style="list-style-type: none"><li>• There is suitable technical capacity and infrastructure for the regular export of MPD-derived anonymised aggregates and indicators to data user(s).</li><li>• MPD is available for an extended period of time (e.g. one or more years)</li><li>• The data controller(s) and user(s) have sign agreements and have approval from regulators. The necessary governance structures are in place to manage and maintain the relationship.</li><li>• Some pilots/proofs of concept have been delivered for some applications. There are plans for scaling of applications.</li></ul>
<b>Expert</b>	<ul style="list-style-type: none"><li>• There is strong technical capacity and infrastructure for the secure, reliable, and speedy processing of MPD and export of anonymised aggregates and indicators to data users.</li><li>• The available MPD data covers a long period of time (e.g. 3+ years).</li><li>• A broad range of stakeholders are involved in governance.</li><li>• Applications are being delivered at scale.</li></ul>



## **GDF-MPD Cohort Based Support Program**

# Milestones to Cohort Implementation

## Preparation →

- MPD Theory of Change
- MPD Country Maturity Framework
- WB Task Team Training (Jun)
- Un Big Data Science, Bilbao (Jun 10-14)
- **GDF-MPD Expression of Interest Open (Week of June 6)**

## GDF-MDP Window Opens →

## Selection - Cohort 1-----→

- **WB Call for Proposals**
- **Cohort 1 Countries Selected**

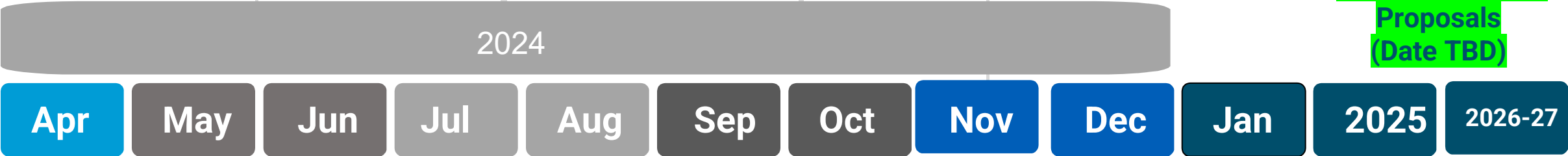
## Cohort Intake→

- **Country Cohort 1 Stakeholder Launch Workshop,**
- **WB, Oct 7-10**

## Cohort 1 Implementation-----→

- UNDF Colombia, Launch Event
- Cohort 1 Task Teams Grants Awarded
- Country activity 2 year implementation

**Cohort 2 Call for Proposals (Date TBD)**



LAUNCH

## Country MPD Maturity Considerations

- **Data Infrastructure:** Existing national data systems, availability of mobile data, and technical capabilities.
- **Stakeholder Engagement:** Level of interest and commitment from key stakeholders, including government agencies (ideally the NSO), mobile network operators (MNOs)
- **Regulatory Environment:** Understanding of data protection laws, privacy concerns, and any regulations that might impact data sharing and use.
- [...].

## Other Considerations

- Experience of Task Team working with MPD for Policy
- Cohort implementation feasibility (geography, language)
- Global Practice collaboration on task team
- Proposal reflects alignment with country data strategy, WB initiatives in data
- Country lending portfolio/pipeline
- [...]

### Country Cohort

Pre-Foundation \$	Foundation \$\$	Practitioner/Expert \$
Country X Country Y Country Z Country [...]	Country X Country Y	Country X Country Y

## GDF-MPD Country Cohort 1 - 18 Countries

### 24 -month Cohort implementation period

Pre-Foundation	Foundation	Practitioner/Expert
<b># of Countries: 10</b> (Mongolia, India, Kazakhstan, Ecuador, Peru, Cote D'Ivoire, Benin, Togo, Guinea)	<b># of Countries: 7</b> (Haiti, The Gambia, Argentina, Rwanda, Tunisia, Morocco, Senegal)	<b># of Countries: 1</b> (Brazil)
<b>Country Based Activities (Indicative)</b> <ul style="list-style-type: none"> <li>• Raising Stakeholder awareness</li> <li>• Developing Country Partnerships in MPD</li> <li>• Identify feasible MPD policy solutions</li> <li>• Conduct in-depth country MPD maturity assessment</li> </ul>	<b>Country Based Activities (Indicative)</b> <ul style="list-style-type: none"> <li>• Implementing MPD Data Access Arrangements</li> <li>• Provisioning MPD processing infrastructure</li> <li>• MPD Governance</li> <li>• Technical training on MPD foundations</li> <li>• Operational research</li> </ul>	<b>Country Based Activities (Indicative)</b> <ul style="list-style-type: none"> <li>• MPD Policy application(s)</li> <li>• Multi-MNO Pipeline</li> <li>• Strengthen MPD Intuitional environment</li> <li>• Prepare MPD lending activities</li> <li>• Operational research activities</li> </ul>

### Cohort Training Program

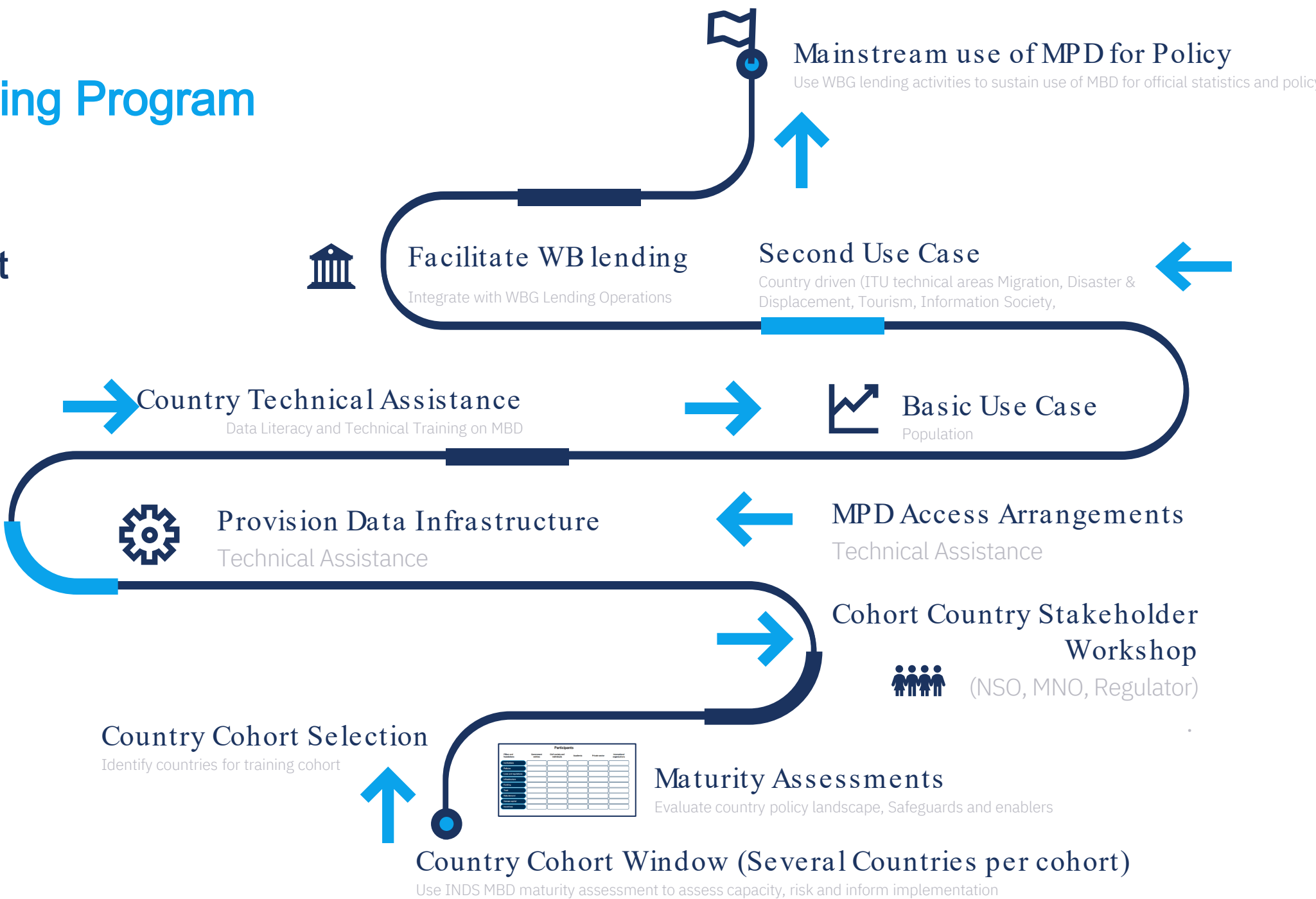
- All Country Task Teams Participate in Cohort 1 Launch Workshop (October 7-10, Washington DC)
- MPD Foundations Training Program - Online, Instructor-Paced Training Program

# Cohort-Based Capacity Building Program

**Practitioner/Expert**  
Enablers, Standards and Safeguards

**Foundation**  
Enablers, Standards and Safeguards

**Pre-Foundation**  
Awareness Raising







# Resources:

- ITU: [Big Data for Information Society](#)
- World Bank: [Global Data Facility MPD Essential Resources](#)
- Flowminder: [FlowGeek knowledge center](#)
- UN CEBD Task Team on MPD: [Methodological Guides](#)
- UN CEBD MPD for Official Statistics: [Mobile Phone Data Awareness Course](#)





*"If you want to go fast, go alone.  
If you want to go far, go together."*

# Partner with the Global Data Facility To Put Mobile Phone Data to Work for Policy

Contact [gdfmpd@worldbank.org](mailto:gdfmpd@worldbank.org) or [indicators@itu.int](mailto:indicators@itu.int) if you are:

- **Interested in donor opportunities**
- **Would like to learn more**

<https://www.worldbank.org/en/programs/global-data-facility>

<https://www.itu.int/en/ITU-D/Statistics/Pages/bigdata/default.aspx>



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**Thank you!**