USING BIG DATA FOR SDGs
Mobile Data for Tourism and Commuting

BPS – Statistics Indonesia

Titi Kanti Lestari
In Indonesia, the SDG Targets have been set up to achieve the 2030 Agenda (there are 319 indicators).

BPS-Statistics Indonesia contributes to 136 Indonesian SDGs Indicators.

There are data gaps in terms of coverage, granularity (sub-national), frequency, timeliness.

Mobile Positioning Data is used to fill in the gaps.
Target 8.9: By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products → Immigration data available for official gates → Mobile Positioning Data (MPD) used to increase coverage, granularity for tourism (inbound, domestic, outbound) statistics

Target 12.b: By 2030, Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products → Arrival/Departure Card are no longer used → MPD used for sub-national data for tourism (inbound, domestic, outbound) statistics

Target 10.7: Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies → Household survey is only conducted every two years and not all municipalities → MPD used for commuting and internal migration, monthly and all municipalities

Target 11.a: Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning → No data → MPD for commuting and Metropolitan Statistics Area Estimation
Meanwhile...

**Policymakers**
They need data to for monitoring SDGs and policy making.

**Society**
They need trusted data

Qualified and trusted statistics & indicators have to be provided
More granular, frequent & timely for monitoring SDGs and other purposes

MPD
“I am so helpful...”
Benefit of Using **Mobile Positioning Data**

- **Increase Coverage**
  Mobile phone data is used to increase the coverage and data quality.

- **Granular Data**
  More granular data, such as municipality and sub-district

- **More frequent data**
  Annual data for monitoring

- **Timely**
  More timely data.

- **Less burden**
  Less work and respondent burden

- **Less labour**
  Less manual labour (enumerators)

- **Cost Effective**
  Less budget
9 data scientists can handle work load that usually need 8,000 enumerators for each quarter on domestic tourism household survey and 500 enumerators on commuter household survey.
Quality Assurance

Sound Methodology

Privacy-Preserving Processing
Key Partners and Engagement

Partnership with any organizations:

Ministries and institution, private sector, academic, international organization, data users

Engagement

- Presidential decree for SDGs, One Map Policy, One Data Policy
- Building Collaboration/MoU with private companies
- Develop one data forum → involving multidisciplinary expertise
GWG MPD Subgroup for Tourism

- Gather experiences of all Task Team members
- Develop Second Handbook for Tourism
- Create e-learning material

* BPS Statistics Indonesia
  CBS Statistics Netherlands
  Geostat Statistics Georgia
  Istat Statistics Italy
  Saudi Arabia Statistics

* Subgroup lead

Eurostat
Positium
UNSD
ITU

UN Global Working Group
THANK YOU

Titi Kanti Lestari
titi@bps.go.id