



# Guiding principles to maintain public trust in the use of mobile operator data for policy purposes

Ronald Jansen

Assistant Director

Chief Data Innovation and Capacity Development  
United Nations Statistics Division



## Teamwork - GWG

UNSD

Ronald Jansen, Karoly Kovacs

Positium

Erik Saluveer, Siim Esko

Statistics Estonia

Kaja Sostra

Flowminder

Linus Bengtsson, Tracy Li, Wole A. Adewole

GSMA

Jade Nester

University of Tokyo

Ayumi Arai

ITU

Esperanza Magpantay



## COVID-19 : Government tries to contain the spread of the virus by limiting human mobility

Statistical offices were requested to assess the effect of the Government interventions:

- **Estonia**                      Statistics Estonia, Positium, Mobile Network Operators
- **Ghana**                         Ghana Statistical Service, Flowminder, Vodafone
- **The Gambia**                Gambia Bureau of Statistics, University of Tokyo, World Bank, Public Utilities Regulatory Authority (PURA), Africell, Comium

## Effectiveness of movement restrictions

### Estonia

- Average distance from main location
- Percentage of time spent at the main location
- At level of local municipalities
- First report after 2 weeks

### Ghana

- Travel between regions and districts
- Comparison between for and after lockdown
- First report after 4 days

### The Gambia

- Population distribution
- Distance traveled
- Mobility across regions
- People were moving to rural areas



## Maintain public trust in the use of mobile operator data for policy purposes

**Question:** Have we done the best we can do to

- ✓ Justify using mobile phone data ?
- ✓ Ensure protection of privacy ?
- ✓ Produce the best results for policy purposes ?

# Guiding Principles

Principles of  
necessity and  
proportionality

Principle of privacy  
protection

- Statistics law, GDPR,  
GSMA privacy guidelines

Principle of  
professional  
independence

Principles of  
commitment to  
quality

Principle of  
international  
comparability

## Application of the Principles

### Estonia

- Need for timely data on movement of people
- EC regulation 223/2009
- Input and output quality checks
- Anonymous and aggregated data

### Ghana

- Detail and timely data were needed, and data pipeline existed
- Independence by building GSS capacity
- Liaison with Ghana Data Protection Commission
- Limitations of data were reported

### The Gambia

- Demand for changes in human movement
- De-identified and aggregated data
- Transparency on methods used
- Validity and limitations carefully examined

# Concluding remarks

- ❑ Pre-requisite: data pipeline and experience in place
- ❑ Fit-for-purpose: Timely, frequent and detailed
- ❑ Protection of privacy got most attention
- ❑ Trade-off of privacy versus quality
  - Balance needed to protect the quality of results