## DATA ENJW

### Accelerating implementation of Data For Now



Department of Economic and Social Affairs Statistics







### **DATA The Data for Now initiative**

- Strengthens countries' capacity in the use of innovative data sources, technologies, methods and partnerships for better, more timely and disaggregated data for sustainable development
- Co-led by United Nations Statistics Division (UNSD), World Bank, Global Partnership for Sustainable Development Data (GPSDD), Sustainable Development Solutions Network (SDSN Trends) and UNDP
- Technical assistance support from e.g. UN-Habitat, Statistics Norway, FAO, Digital Earth Africa....
- Initiated in 2019









# Innovative Approaches

#### Partnerships

- CSOs
- Academia
- Private sector...

#### Data Sources

- Social media data
- Satellite imagery
- Telecom data
- Citizen generated data
- Admin data....

#### Methods

•

- Probabilistic Record Linkage
  - Small Area Estimation
- De-Identification, PET
- Web Scrapping
- Natural Language Processing
- Machine Learning....

#### Tools

- <u>Data Collection</u>: Pentaho, R, Python, Batch/Stream Processing...
- <u>Preparation</u>: ata warehouse, data-lake, Apache Parquet, R, Python...
- <u>Analysis</u>: Google Earth, QGIS, ArcGIS, R & Python libraries (NumPy, Pandas, BeautifulSoup...)...
- <u>Presentation</u>: Dashboards, DataMarts, DataAPI, ...
- Dataflow Automation....

United Department of Economic and Social Affairs Nations Statistics









 Use of geospatial information for education-related indicators on home-to-school distance and drop-out (Colombia)





- Modernization of IT architecture to move away for manual dataflows and support innovative approaches (Senegal)
- Use of satellite imagery, OpenStreetMap and statistics to produce SDG 11.7.1 on access to open public spaces (Palestine)
- Use of small area estimation and satellite imagery to produce local level estimates on poverty (Bangladesh)
- Use of social media and machine learning to assess discrimination to support SDG 16 perception indicators (Colombia)









## **Guiding principles**

DATA



## **DATA Implementation process**



United Department of Economic and Social Affairs Nations Statistics









## D4N project - managed by UNSD

- Funded by Italian and Norwegian Governments
- Morocco: SDG 11 (satellite imagery), CPI (web scraping)
- Palestine: SDG 11 (satellite imagery), citizen generated data (probably for SDG 11)
- Jordan: SDG 2, 9, 11, 15 (satellite imagery) to be confirmed
- Tunisia: Internal migration patterns using mobile network data; CPI (web scraping and scanner data)
- Kyrgyzstan: Integration of geospatial and statistics information / citizen generated data
- Vietnam: Poverty in children; agriculture (small area estimation / geospatial information)
- Bangladesh: SDG 11 and 9 (satellite imagery / national coordination re. geospatial and stat integration)
- Sierra Leone: Marine litter data (citizen science), SDG 15, 16 (admin data)
- Kenya: User engagement
- Ethiopia: Poverty; agriculture (small area estimation / satellite imagery)

ountries









## D4N project - managed by UNSD

ross-cutting themes

• Support the Collaborative on Citizen Data, including the development of conceptual framework on citizen data

- Promotion of NSO and academia collaboration
- Integration of geospatial and statistical data (e.g Global seminar on geospatial and statistical information integration in Bangkok 28-30 Nov 2023







