A Data Ecosystem Approach for Harnessing the Data Revolution for Sustainable Development

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The Global Sustainable Development Goals

MDGs (2000-2015)

1. Developing country focused
2. Social
3. Foreign Aid
4. Official Statistics and Administrative Data

SDGs (2015-2030)

1. Universal
2. Social, Economic, and Environmental
3. Domestic Investment, Private Flows, and Aid
4. Big Data, Citizen Generated Data, Geospatial and Earth Observation Data, Open Data, and more
17 Goals, 169 Targets, 230 Indicators = Huge Data Needs
The Challenges

Data are not available, dynamic, disaggregated, high quality, useable, accessible, open, or used effectively.

• Data on entire groups and key issues are unavailable.
• Data are not dynamic or disaggregated.
• Data quality is poor and major gaps remain.
• Data that exist are often not useable.
• Data that are useable are not accessible or open.
• Data that are accessible are often not used effectively.
Data for What?

- Improved Decision-Making and Policy
- Increased Citizen Empowerment
- Increased Innovation and Entrepreneurship

To Achieve and Monitor Sustainable Development
Harnessing the Data Revolution

“Data is the Oil of the 21st Century”

- Supporting and complementing government and civil society efforts to generate data for statistics for the formal SDG monitoring framework
- Unleashing innovation in production, accessibility and use of real-time, dynamic, disaggregated data from multiple sources
Earth Observation Data
Citizen-Generated Data
Privately Held (Big) Data

<table>
<thead>
<tr>
<th>« Real Time » Operation Management</th>
<th>Policies &amp; Consulting</th>
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<tbody>
<tr>
<td>ex: Provide mobility information every hour for security staffing</td>
<td>ex: Optimise hospital location for density of population</td>
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<tr>
<td>ex: Provide real-time personal health risk to users in mobility</td>
<td>ex: Optimise distribution of drugs in function of diseases geography, calendar events,…</td>
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<tr>
<th>Single Data source</th>
<th>Multiple data sources</th>
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**Variety of Sources for Data Analysis**

Faster: monthly…daily…

SLOWER Data refresh (yearly, quarterly)

Source: Orange D4D Challenge
Open Data

1. Open by Default
2. Timely and Comprehensive
3. Accessible and Usable
4. Comparable and Interoperable
5. For Improved Governance and Citizen Engagement
6. For Inclusive Development and Innovation

opendatacharter.net
WE CONVENE
WE CONNECT
WE CATALYZE…

better, more accessible, and usable data to help end poverty, fight inequality and injustice, and combat climate change.
The Global Partnership has 200+ Data Champions
Harnessing the Data Revolution for Sustainable Development

**Enablers: Political Environment**
- Showcase how data can remove political and social barriers, and address data gaps
- Stimulate collaboration between public-private actors in support and tracking of the SDGs

**Demand Side**
- Drive awareness and political buy-in on how and why data makes a difference
- Ensure visibility and understanding of data for filling gaps and decision making

**Supply Side**
- Harness real time data flows for sustainable development
- Ensure access to data in public domains; including open data
- Catalyse data innovations for the delivery of the SDGs

**Enablers: Structural Environment that fosters trust**
- Foster private sector engagement to address market failures by providing expertise and knowledge
- Support the establishment of fair use of data
- Foster mechanisms to improve access and interoperability that enables widespread usage of SDG data

Opportunities
Data Roadmaps for Sustainable Development

Support countries at national and sub-national levels to develop and implement whole of government and multi-stakeholder data roadmaps for harnessing the data revolution for sustainable development, with particular emphasis on the SDGs and local priorities articulated in national plans.
Country Led Approaches

- The Data Roadmaps for Sustainable Development approach is iterative, based on experiences and implementation models from partner countries

- Colombia
- Philippines
- Sierra Leone
- Kenya
- Tanzania
- Senegal

- USA
- UK
- Egypt
- Mexico
- Ghana
Data for Action

- Fill data gaps more efficiently, frequently and cost effectively
- Real-time, dynamic, disaggregated data
- Official and non-official data
- Use innovative approaches and range of stakeholder to solve problems

More informed and data driven decision making
Country Experiences

The 17 SDGs Regrouped

1) Reducing general poverty prevalence—Goals 1, 2, & 10
2) Human development—Goals 3, 4, & 6
3) Gender parity—Goal 5
4) Employment, economic growth and competitiveness—Goals 7, 8, & 9
5) Human settlement, housing and population infrastructure—Goal 11
6) Environmental sustainability—Goals 12, 13, 14, & 15
7) Governance, peace and security—Goal 16
8) Means of implementing Goals 1 to 16—Goal 17

Sierra Leone’s Agenda for Prosperity

Pillar 1: Diversified economic growth—directly related to SDGs 7, 8, & 9
Pillar 2: Managing natural resources—directly related to SDGs 12, 13, 14, & 15
Pillar 3: Accelerating human development—directly related to SDGs 3, 4, & 6
Pillar 4: International competitiveness—directly related to SDGs 7, 8, & 9
Pillar 5: Labour and employment—directly related to SDGs 7, 8, & 9
Pillar 6: Social protection—directly related to SDGs 1, 2, & 10
Pillar 7: Governance & public sector reform—directly related to SDG 16
Pillar 8: Gender & women’s empowerment—directly related to SDG 4 & 5

Colombia

Data Gaps Diagnosis Matrix

- 230 indicadores globales
  - Information available: 54%
  - Information partially available: 30%
  - No information or methodology: 16%

- Frequency: 12.4% data not produced annually
- Disaggregation: 55% include some type of disaggregation

II. Initiatives of the PSS

Institutional Organization for the SDGs

- Generate statistics for some indicators
- Capacity building for the generation of SDG statistics
- Statistical Support
- Compilation/generation of data

- Analyze the SDG indicators for policy-making
- Demonstration of relevance of SDG indicators to public policy
- Integration of the SDG framework in planning and programming
- Activities/investments to support achievement of the SDG
- Generate statistics for some indicators

Repository of SDG Indicators

Private Sector

Funding Support

Philippine Statistics Authority

• Statistical advocacy
• Raising public awareness of issues on progress in the SDGs

DATA USERS, POLICY-MAKERS, PLANNERS

PRIVATE SECTOR

Other Data Producers

NEDA

Other Data Producers

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NEDA

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Philippines

Sierra Leone
Key Challenges Across Countries

- **Institutional Coordination.** Buy-in from the highest level of government with clear roles and responsibilities across institutions.
- **Multi-Stakeholder Mechanisms.** Institutionalizing this process with active involvement across sectors – a sustainable process.
- **Engagement with the Private Sector.** Continues to be an issue both from workable business models to unlocking privately held data.
- **Data Gaps.** Conducting these assessments and consistent issues on environmental, data disaggregation, administrative and leave no one behind.
- **Data Sharing.** Policies, mechanisms and frameworks are not in place to support adequate data sharing across government and other stakeholders.
- **Interoperability.** Systems are not talking to one another and a lack of standards in limiting the flow and use of data.
- **Funding.** Investments in data are limited, often not sustainable and not coordinated at the country level.
SDG Data Roadmaps Toolbox: www.data4sdgs.org/toolbox

- This framework will iterate and adapt based on further learning through national workshops and expert feedback.
- Intent is to provide a set of resources, some of which is already available through partner organizations, that support countries and subnational units in their SDG roadmap process.
- Meant to align with national strategies in place, be country led, based on local priorities.
- Supportive of SDG monitoring and dynamic data in the context of the data revolution.
Data Roadmaps Process at the Country Level

Deepen our engagement

Further promote multi-stakeholder data ecosystems

Support political buy-in at the highest level

Mobilize resources and funding
Data Collaboratives: Environment and LNOB

• ENVIRONMENT:
  – Working with GEO, NASA, ESA and others on earth observation data applied to the SDGs
  – Working with WRI, IODC and CODE on climate change open data
  – Working with World Bank on open energy data
  – SDGs applied at subnational level

• LEAVE NO ONE BEHIND:
  – Data disaggregation
  – Gender data
  – Marginalized groups
1. Reduce the time it takes to discover and use data in an application.

2. Make it as easy as possible to connect existing data.

apihighways.data4sdgs.org
Transform data on SDGs into effective applications and visualisations

DATA4SDGS DEVELOPER PLAYGROUND

Increase openness and leverage existing data. By bringing together high-value data sets across sectors for achieving the SDGs.

Improve the effective use of data. By providing robust APIs to empower data to be combined in new ways for further insights.

Enable data for action and decision making. By empowering the developer community to create rich applications and visualisations.

RECENT DATASETS

Poverty headcount ratio at $1.90 a day (2011 PPP) (% of population)
WORLD BANK GROUP

Poverty headcount ratio at national poverty lines (% of population)
WORLD BANK GROUP

Poverty gap at national poverty lines (%)
WORLD BANK GROUP

FEATURED DATASETS

VIIRS Active Fire – Global
NASA

World Database on Protected Areas – Global
EICK & UNGP-ICM

Inflation, consumer prices (annual %)
WORLD BANK GROUP

Poverty gap at national poverty lines (%)
WORLD BANK GROUP

GDP per capita (current US$)
WORLD BANK GROUP

Adolescent fertility rate (births per 1,000 women ages 15-19)
WORLD BANK GROUP
More informed and data driven decision making
More informed and data driven decision making