

SDGs and Big Data

How many countries are using big data sources for the SDG indicators?

Are we in the midst of a big data revolution?

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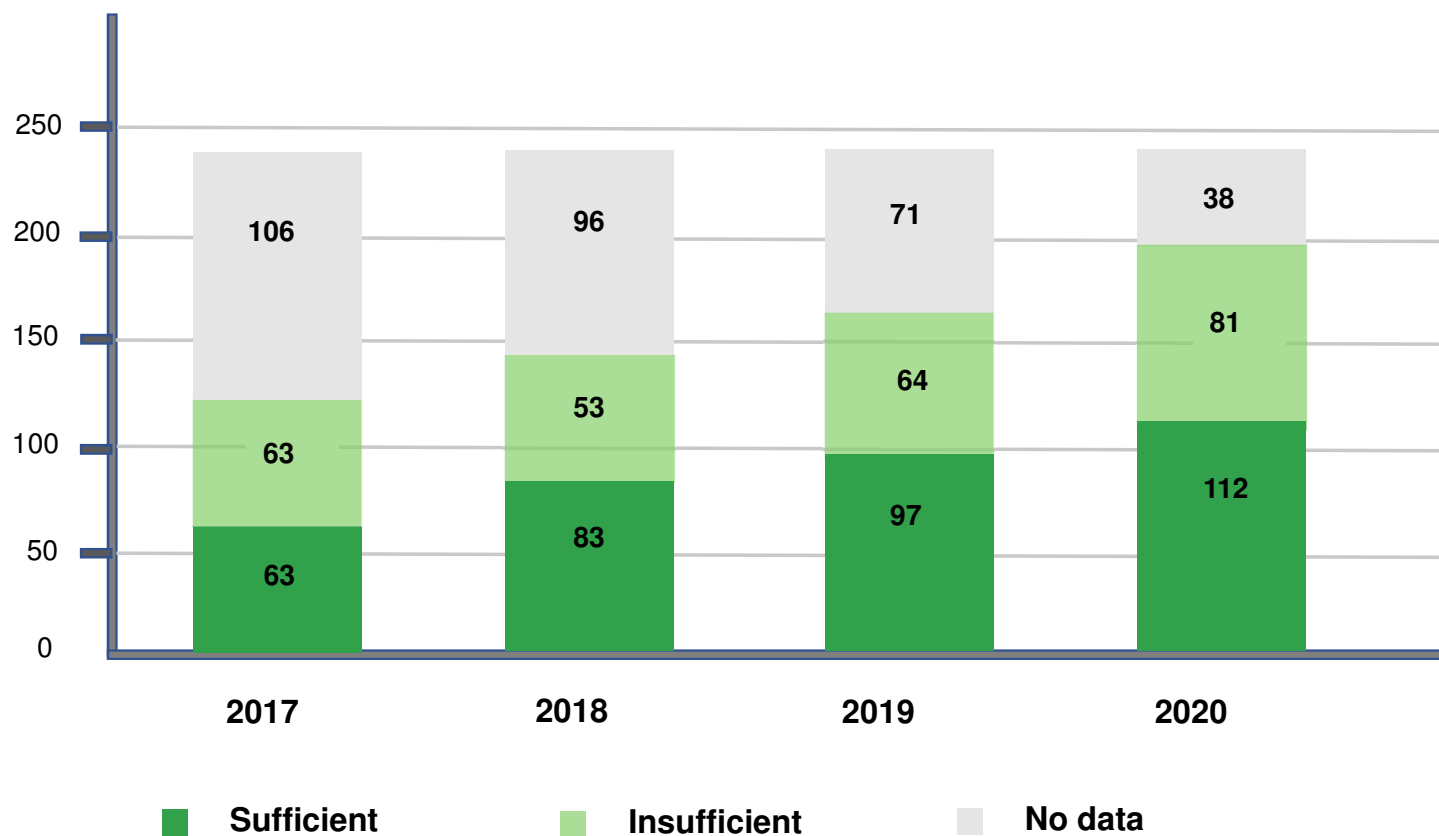


SDG data availability in Asia-Pacific is **improving** but still **poor**.

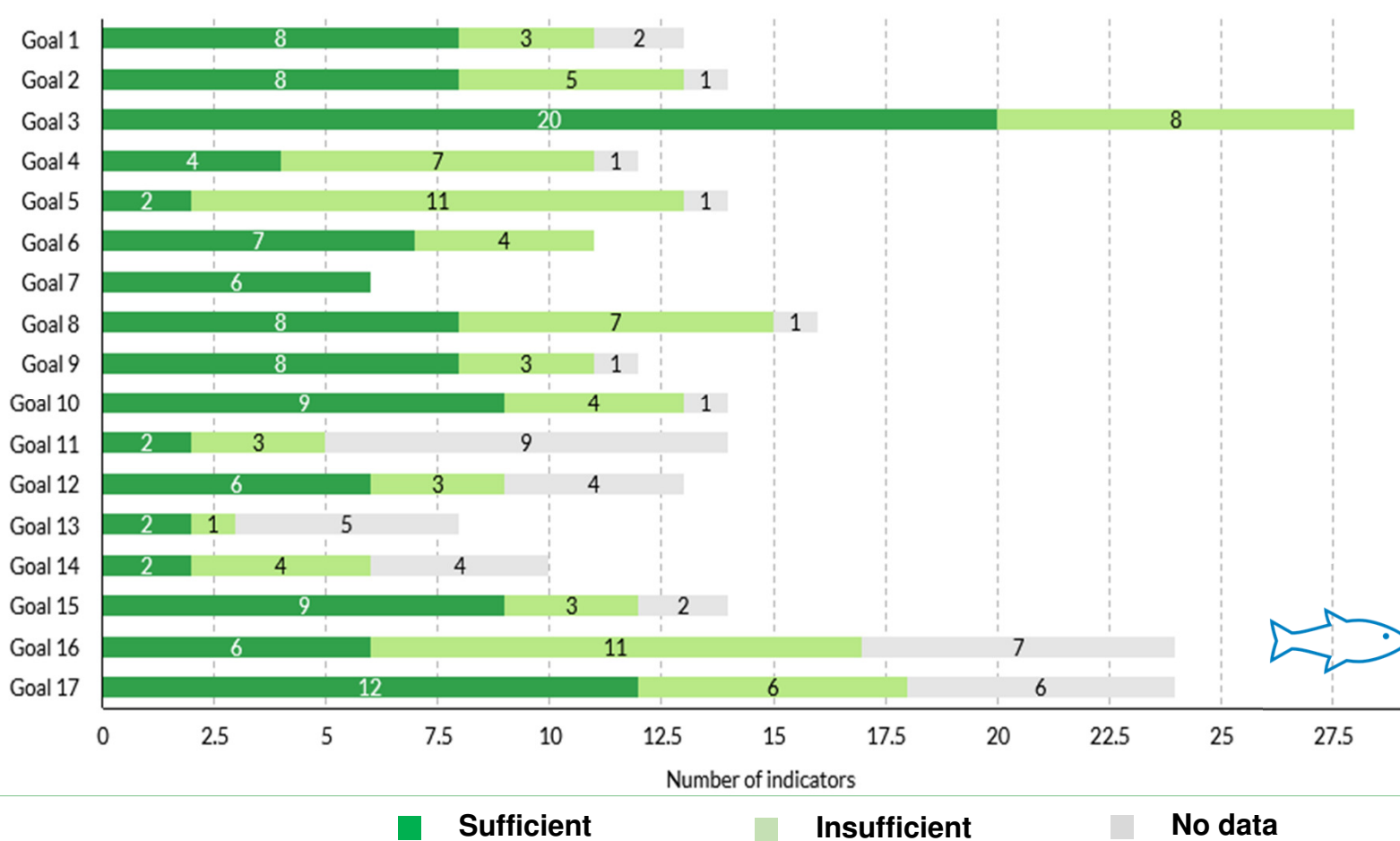


129 SDG indicators have **no** or **insufficient** data to measure progress




No. of Indicators

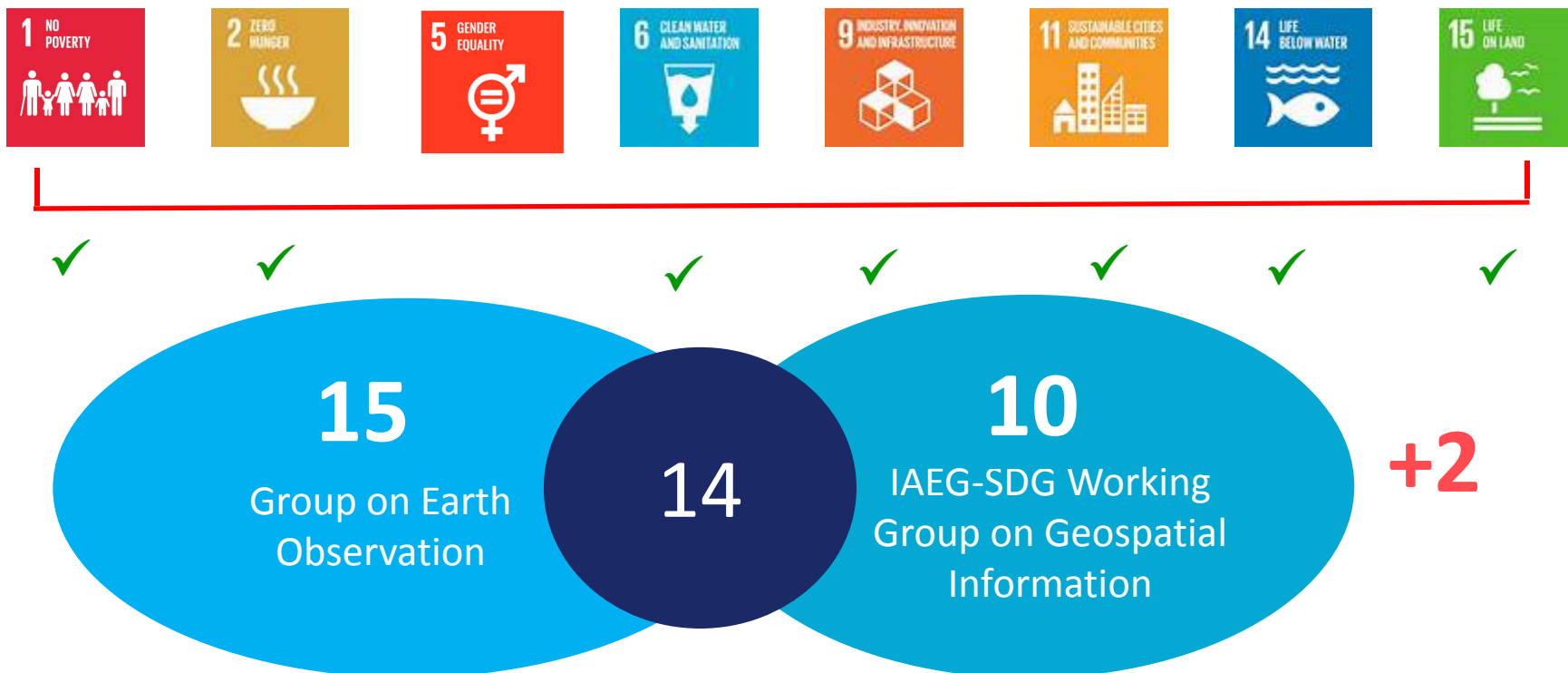


Data is **insufficient** or **missing** in Asia-Pacific for **80% or more** of the SDG indicators in Goals 5, 11 and 14



■ Sufficient ■ Insufficient ■ No data

-  **39 SDG indicators** benefit from geospatial information (according to IAEG-SDG and GEO).
-  **16 country examples** were found.
-  Country examples for **2 more SDG indicators** (beyond IAEG-SDG and GEO lists) also found



Source: <https://www.unescap.org/resources/stats-brief-december-2020-issue-no-27-geospatial-information-and-2030-agenda-sustainable>





What SDG indicators
are countries **using**
big data for



What about other
big data types



Data we have **used** for the analysis in this presentation

 <p>1 NO POVERTY</p>	<p>Philippines: 1.1.1 , 1.2.1, 1.3.1, 1.4.1, 1.4.2, 1.5.1, 1.5.4, 1.a.2, 1.a.3 Deqing China: 1.4.1 Ukraine: 1.4.2</p>	9	 <p>6 CLEAN WATER AND SANITATION</p>	<p>Philippines: 6.1.1, 6.3.1, 6.3.2, 6.4.2, 6.6.1 Australia: 6.3.2 China: 6.3.2, 6.4.2, 6.6.1 Canada: 6.4.2, Netherlands: 6.4.2, Deqing China:6.6.1, Germany: 6.6.1, Mexico: 6.6.1</p>	9
 <p>2 ZERO HUNGER</p>	<p>Philippines: 2.1.1 , 2.2.1 2.2.2,2.3.1, 2.3.2 China: 2.2.1, 2.4.1 Deqing China: 2.2.1</p>	6	 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>Philippines: 7.1.2, 7.2.1</p>	2
 <p>3 GOOD HEALTH AND WELL-BEING</p>	<p>Philippines: 3.1.1 3.2.1, 3.2.2, 3.3.1, 3.3.2, 3.7.1, 3.8.1, 3.b.1, 3.c.1 China: 2.2.1, 2.4.1</p>	9	 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>Philippines: 8.3.1, 8.5.2, 8.6.1, 8.7.1, 8.10.2 Indonesia: 8.9.1 8.9.2, 8.10.2</p>	7
 <p>4 QUALITY EDUCATION</p>	<p>Philippines: 4.1.1, 4.2.1, 4.2.2, 4.3.1, 4.4.1, 4.6.1, 4.a.1 , 4.b.1, 4.c.1</p>	9	 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p>9.1.1: Deqing China, Columbia, Japan, Philippines: 9.c.1: Indonesia</p>	2
 <p>5 GENDER EQUALITY</p>	<p>Philippines: 5.2.1, 5.2.2, 5.3.1, 5.6.1</p>	4			

Data we have **used** for the analysis in this presentation

11 SUSTAINABLE CITIES AND COMMUNITIES



11.1.1: China, **Philippines**, 11.2.1: **Austria**, China, Deqing China, **Colombia**, **Ireland**, France, **Sweden**, **Switzerland**, 11.3.1: **Canada**, China, **Colombia**, Finland, **India**, **Ireland**, Italy, **Mexico**, **Portugal**, **Sweden**, 11.4.1: **Philippines**, 11.5.1: China, **Philippines**, 11.5.2: China, 11.6.1: **Philippines**, 11.6.2: China, 11.7.1: China, Deqing China, **Columbia**, Germany, **Ireland**, **Switzerland**, **Sweden**, 11.7.2: **Philippines**

9

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



12.5.1, 12.8.1, 12.a.1, 12.b.1: **Philippines**

4

13 CLIMATE ACTION



13.1.2, 13.2.1, 13.3.2, 13.b.1: **Philippines**

4

14 LIFE BELOW WATER



14.1.1: Australia, China, **Philippines**, 14.2.1: China, **Philippines**, 14.5.1: **Philippines**, 14.7.1: **Philippines**

4

15 LIFE ON LAND



15.1.1 : Austria, China, Deqing China, Finland, France, Germany Italy, Spain, New Zealand, Ukraine, **Philippines**, 15.1.2: China, Deqing China, **Philippines**, 15.2.1: China, Philippines, 15.3.1: China, Deqing China, **Mexico**, Ukraine, 15.4.1: Deqing China, **Philippines**, 15.4.2: Germany, Japan, New Zealand, **Turkey**

6

16 PEACE, JUSTICE AND STRONG INSTITUTIONS



16.1.2, 16.1.3, 16.2.1, 16.2.2, 16.3.1, 16.6.1, 16.7.2, 16.9.1: **Philippines**

8

17 PARTNERSHIPS FOR THE GOALS



17.8.1: **Indonesia**

1

Facts and figures about big data use and the SDG Goals and indicators

How many SDG Goals could country examples be found for?

How many SDG Indicators could country examples be found for?

Were any of the examples in official documents?

- Which Goal was **missing**?
- **Goal 10 – Reducing Inequalities**
- How many using **geospatial** data? **25**
- **Mobile phone** data? **4**
- **Citizen-science** data? **79**
- How many used **different sources** by different countries? **16**

All examples were of an **exploratory nature** e.g. conferences, research papers

Our desk top research found the following **facts** and **figures** about big data by **countries**

How many examples of big data use by countries for SDG indicators were found?

How many examples were from NSOs?

Which SDG indicator had the highest number of examples?

Which SDG indicator had the highest number of examples from NSOs?

- How many using **citizen-science data**?
79 (all from the Phillipines)
- How **mobile phone** data?
4 (all from Indonesia)
- How **geospatial** data?
73 (from 22 countries)
 - **24** excluding the Phillipines
 - **79** citizen-science, **4** mobile phone, **22** geospatial
- **11** examples, **2** from NSOs
- **7**



Key takeaways

1

SDG data availability **remains a challenge** despite incremental improvements each year.

2

Countries are embracing the **opportunity** to use big data for the SDG indicators

- Mainly geospatial data (22 countries)
- Demonstrated the potential of citizen science data (79 SDG indicators in the Philippines)
- Several NSOs such as Republic of Korea, China, and Indonesia have dedicated efforts to explore the use of big data for the SDGs.

3

Turning **opportunity into the new norm** is a key next step

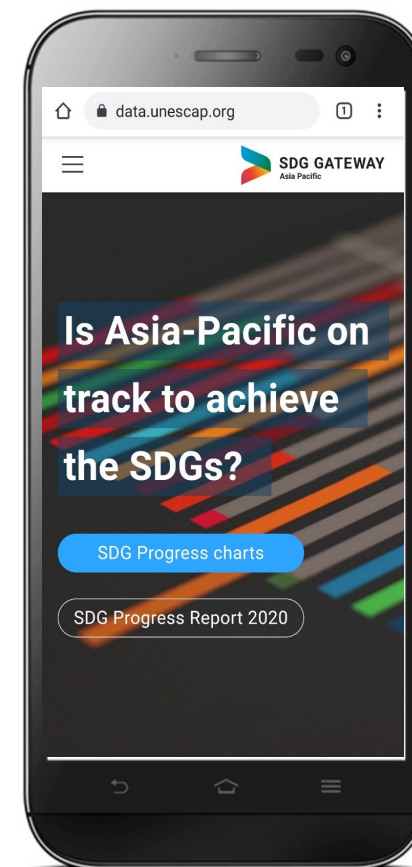
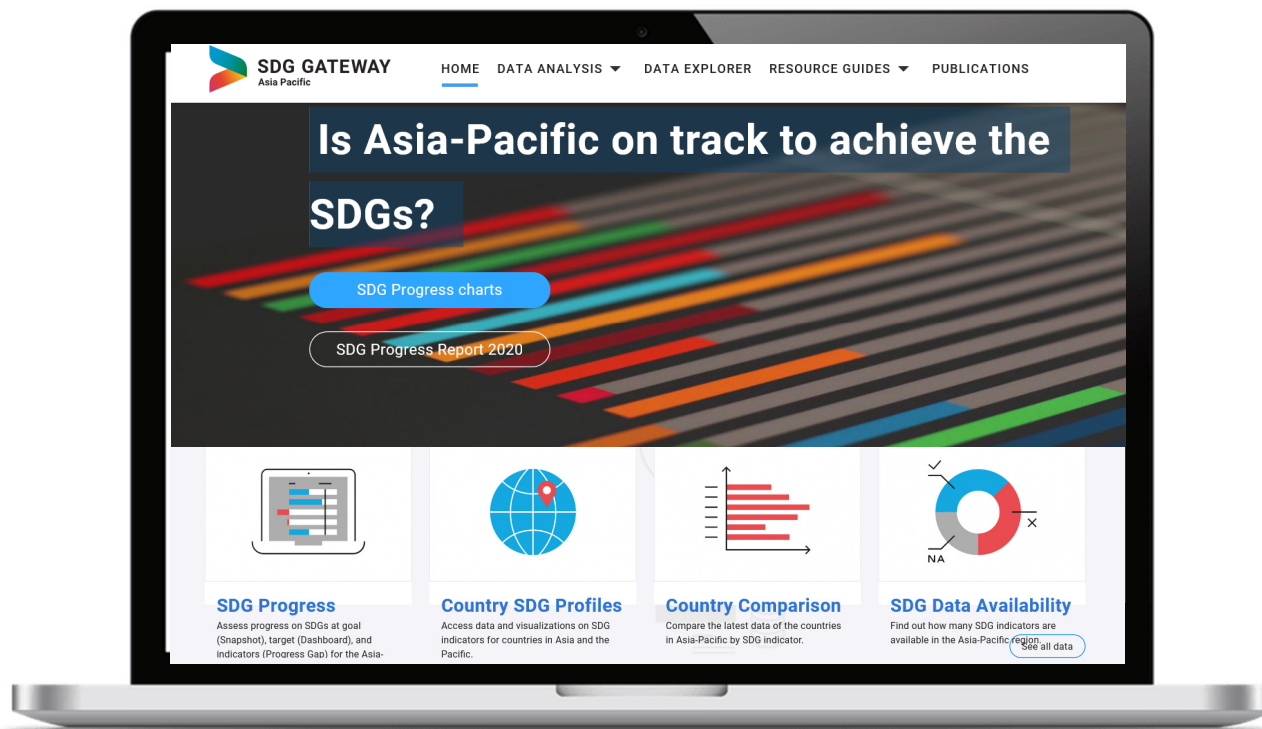
- Innovate using big data sources for indicators in national VNR reports
- Use national SDG data availability to drive partnerships within the National Statistical System with geospatial, science and environmental agencies and academies

4

Help is available!!

- Global Working Group on Big Data for Official Statistics, the Global (Data) Platform and its regional hubs are an excellent source of good practice, knowledge, tools and more
- National level partners
- Development partners including UN, Global Pulse Labs, Paris21 and Asian Development Bank

Regional assistance **is available** including an Asia-Pacific SDG Gateway



<https://data.unescap.org/>

THANK YOU

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Working Paper Series



SD/WP/12/January 2021

ESCAP Statistics Division

Big Data for the SDGs

Country examples in compiling SDG indicators using non-traditional data sources



STATS BRIEF



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STATISTICS DIVISION

Geospatial information and
the 2030 Agenda for Sustainable Development