



Arab National Reporting Platforms for the Sustainable Development Goals: Assessment



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Arab National Reporting Platforms for the Sustainable Development Goals: Assessment



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development programme towards improvement of SDG reporting platforms at the national level.

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Introduction

The Sustainable Development Goals (SDGs) are global goals that were adopted by Member State of the United Nations in September 2015 as a universal call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. A framework of 232 indicators was adopted to monitor global progress towards achievement of the SDGs.

SDG reporting is the act of publishing and disseminating data and statistics on SDG indicators for key stakeholders.¹ SDG reporting platforms are essential to help countries achieve their national development goals, and are crucial elements in monitoring and reporting progress towards achieving the SDGs at all levels. At the national level, these platforms are referred to as national reporting and dissemination platforms (NRPs). NRPs are country-led and country-driven reporting platforms that enable Governments and policymakers to evaluate their country's progress and effectively adjust their developmental strategies around specific goals. By providing an easy analysis via innovative visualizations and tools

for exploring official national and subnational statistics and data, NRPs assist countries and stakeholders in identifying data gaps and multiple data sources that need to be reconciled.

In line with the objective of the Economic and Social Commission for Western Asia (ESCWA) to support economic and social development in its member States, the ESCWA Statistics and Information Technology Cluster assists countries in producing timely and quality data by monitoring and tracking SDG progress in the region. However, several challenges exist, including data gaps, as well as timely and quality statistics. The display of SDG progress through NRPs helps countries produce, monitor and report data and statistics on SDGs in a transparent manner. NRPs also assist in identifying countries' capacity-building needs.

The present report analyses existing NRPs in ESCWA member States as at September 2020, and defines minimum regional principles and characteristics to enable countries to move towards achieving the SDGs.

¹ www.sdgreporting.org/topic/sdg/.

I. Reporting and Dissemination Platforms

NRPs are a means to report and disseminate national statistics, including SDG indicators and descriptive metadata. They can take the form of a website, database, workflows and processes to collect, store, secure and disseminate data and related metadata and documentation in a way that reaches all stakeholders.

These dashboards are defined as a visual display of the most important information needed to achieve certain objectives, which have been consolidated into a single screen

so as to be monitored at a glance.² Simplicity, transparency, advocacy and visibility of access to data on NRPs facilitate tracing countries' progress in achieving the SDGs, and support the life cycle process management of national data.

The objective of these platforms is to create sustainable pathways for sharing information. They are also meant to reduce the potential duplication of work, and to support stakeholders in creating more interoperable data ecosystems for SDG reporting.³

² www.asia-pacific.undp.org/content/dam/rbap/docs/meetTheSDGs/SDG%20dashboards.pdf.

³ www.data4sdgs.org/sites/default/files/2019-07/Lessons%20Learned%20from%20the%20SDG%20National%20Reporting%20Initiative%20%28WebVersion%29.pdf.

II. Principles and Guidelines

The principles and guidelines for the design and implementation of national data platforms were discussed in a meeting organized by the United Nations Statistics Division (UNSD) on national reporting platforms, held in New York from 22 to 24 January 2018. The meeting resulted in a number of principles for developing NRPs, as follows:⁴

- 1. Clear institutional arrangements and management:** The responsibility for developing, implementing and maintaining a NRP, including coordination and cooperation within a national statistical system, should be clearly established through adequate laws and regulations, mandates and standard operating procedures. The national statistical office (NSO), commonly tasked with coordinating the national statistical system, is typically assigned this responsibility.
- 2. Fitness for purpose:** The exact purpose, scope and features of a NRP should be clearly established, in cooperation and consultation with all stakeholders and users. NRPs should comply with the Fundamental Principles of Official Statistics⁵ and should address the priority needs and requirements of subnational, national, regional and global monitoring and reporting.
- 3. Sustainability:** The purpose, scope, features, development and implementation

of an NRP needs to take into account the availability of internal and external resources and capacity over the medium and long terms. Government offices and partner organizations should consider the country's specific objectives when establishing an NRP to ensure the platform's sustainability and partners' continued support.

- 4. Interoperability and statistical standards:** NRP components should follow international and national statistical standards and leading practices, to facilitate the integration, customization and development of solutions. In particular, standards should be supported to facilitate data harmonization and exchange across different stages of the statistical production process and across institutions, including common data structure definitions and code lists.

The following are guidelines for implementing an SDG indicator monitoring and reporting platform:

- 1. National ownership:** NSOs should have the ability to maintain, adapt, transform and customize NRPs to address their own and their users' needs, including implementing national strategies for sustainable development, managing subnational administrative boundaries, promoting country-specific ethnic and language

⁴ <https://unstats.un.org/unsd/statcom/49th-session/documents/BG-Item3a-NRDP-E.pdf>.

⁵ A/RES/68/261; E/RES/2013/21.

groups, and developing additional indicator definitions related to national development priorities.

- 2. Collaboration:** NRPs should be designed, developed, improved and maintained on the basis of a collaborative approach that leverages learning between technology developers, donors, policymakers, subject-matter experts, business partners, advocacy groups and both institutional and grassroots users.
- 3. Multilingualism and accessibility:** To leave no one behind, ensure national ownership, and promote the use and impact of data for policy and decision-making at the local level, NRPs should support national languages and accessibility for persons with disabilities, as well as full access across the range of browsers and devices, including mobile devices.
- 4. User-centred design:** NRPs should be designed for and with users, (including operational and end users, such as data consumers and NSO officers), and project owners should engage them in all phases of development. This includes the analysis of user-platform interaction and the establishment of a permanent feedback loop that will result in an iterative process of continuous improvement. For this purpose, data platforms should be developed following agile principles and using strategies such as design thinking.
- 5. Data communication:** NRPs should implement innovative strategies to improve

the presentation, communication and use of data for sustainable development. They should support multiple ways to explore, represent and communicate data and key messages on statistical indicators, and address the needs and priorities of diverse groups of users, including policymakers, legislators, civil society, the private sector, the media, the public, and academia. This includes innovative data visualization and data storytelling capabilities. Regular collection and analysis of usage data and online user feedback should guide future modifications and enhancements.

- 6. Data disaggregation:** NRPs should support improved access to, and use of, disaggregated data to focus on all segments of the population, including the most vulnerable. In particular, data platforms should allow the management and dissemination of data disaggregated by subnational geographic areas, sex, age group, residence, wealth and income group, disability, ethnicity, migrant status, and other important characteristics in line with the Fundamental Principles of Official Statistics.
- 7. Modularity and extensibility:** NRPs should be modular, composed of modules (sub-systems) and components that interoperate to service the different phases of the data life cycle designed according to the Generic Statistical Business Process Model (GSBPM).⁶ The data that these modules and components consume as inputs and produce as outputs should as much as possible be based on open standards and protocols such as the Statistical Data and Metadata Exchange

⁶ <https://statswiki.unece.org/display/GSBPM/GSBPM+v5.1>.

(SDMX),⁷ the Common Statistical Production Architecture (CSPA), and the Generic Statistical Information Model (GSIM).⁸ The system should support extensibility through the addition of modules or components, upstream or downstream.

- 8. Standardized interfaces:** NRPs should provide standardized application programming interfaces (APIs) in accordance with industry best practices, such as the Open-API Specification. This facilitates creating and sharing data across global, regional, national and sub-national data communities.
- 9. Scalability:** NRPs should support needs beyond their immediate or 'pilot' scope of application, in particular through regular and sustained updating. By taking into account the needs and resources of different NSO departments and other national agencies, the design of data platforms should facilitate their adoption across the national statistical system.
- 10. Metadata:** NRPs should support statistical metadata at the appropriate level of granularity. This includes structural metadata such as codes and their descriptions; reference metadata such as methodology and quality aspects of published indicators; and other relevant

information such as the date of the last update.

- 11. Open data:** NRPs should be consistent with open data best practices, as reflected in the principle that open data and content can be freely used, modified, and shared by anyone for any purpose. NRPs should include and follow a data license consistent with these best practices, such as Creative Commons Attribution (4.0) or the Open Database License. Published datasets should be clearly attributed to the originating organization.
- 12. Linked data:** Responding to increasing demand for open data to leverage global and national investments in data for evidence-based policy and decision-making, NRPs should comply with a minimum of level 3 of the following 5-star Linked Open Data principles:
 - (a) Make data available on the web (in any format), under an open license;
 - (b) Make data available as structured data (e.g., Excel instead of image scan of a table);
 - (c) Make data available in a non-proprietary open format (e.g., CSV instead of Excel);
 - (d) Use URIs to denote data items, so they can be referenced;
 - (e) Link own data to other data on the Web, to provide context.

⁷ <https://sdmx.org/>.

⁸ GSIM website: <https://statswiki.unece.org/display/gsim/>.

Table 1. Summary guidelines

Characteristics	Description
Visualizations	Data visualizations allow users to more easily and quickly understand and interpret data.
Multilingual access	The commitment to 'leave no one behind' consolidates concepts for data disaggregation and accessibility. Language accessibility is directly related to these concepts.
Download formats	<ul style="list-style-type: none"> • Some users may want to download and reuse data sets to generate their analyses or create new data visualizations; • The ability to download data and the form of availability of data is an important characteristic.
Data licenses	Open data licenses provide users with acceptable legal terms for using data: Can it be shared and reused? Is a citation required? Can it be used for commercial and non-commercial use?
APIs	<ul style="list-style-type: none"> • APIs enable users to automatically pull and use data on other websites; • This can be used to reduce the reporting burden within Government by automatically updating data between ministries and sources as they become available, and can also be used by the public to disseminate data for use in applications.
Metadata	National metadata are important component of dissemination of data for transparency and accountability aspects. Metadata should include at least definitions, methods of calculations, and data sources.
Proxy indicators	This part will display availability of proxy/additional indicators. Proxy indicators are useful as a remedy in case of data gaps affecting availability of agreed/established indicators. Additional (local) indicators reflect the national development priorities and context.

III. Assessment of NRPs for SDG Indicators in Arab Countries

The ESCWA Statistics and Information Technology Cluster has implemented an analysis of available NRPs in the region and found nine countries with publicly available NRPs for the SDGs; representing 41 per cent of NRPs in the

Arab region as at January 2020. Those nine countries were Bahrain, Egypt, Jordan, Morocco, Oman, the State of Palestine, Qatar, Saudi Arabia, and the United Arab Emirates. The links to those platforms are as follows:

Country	Link to national platforms
Bahrain	https://bit.ly/34e4WXi
Egypt	http://www.egyptsdgobservatory.info
Jordan	http://dosweb.dos.gov.jo/sdgs
Morocco	http://plateforme-odd.hcp.ma/ODD_HCP/fr/
Oman	https://sdg.ncsi.gov.om/
State of Palestine	http://www.pcbs.gov.ps/mainsdgs.aspx
Qatar	https://sdg-en-psaqatar.opendata.arcgis.com/
Saudi Arabia	https://www.sdg.sa/wps/portal/sdg
United Arab Emirates	https://fcsa.gov.ae/en-us/Pages/SDGs/The-Global-Goals.aspx

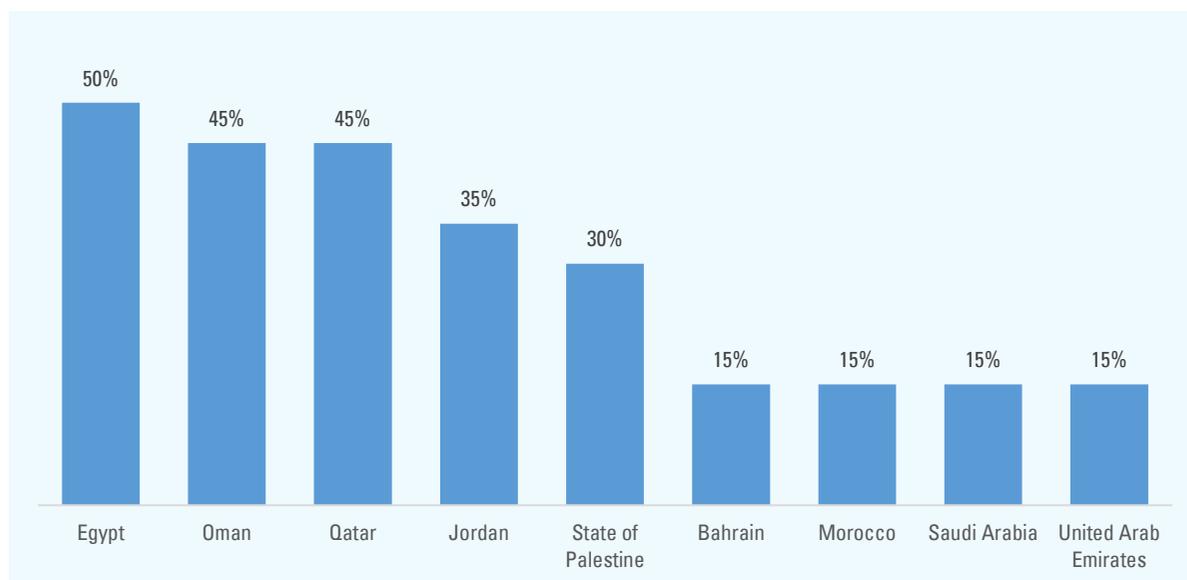
The African Development Bank has developed country profiles for Algeria, the Comoros, Djibouti, Libya, Mauritania, Somalia, the Sudan and Tunisia, based on international data. Iraq, Kuwait, Lebanon, the Syrian Arab Republic and Yemen have no NRPs.

Most countries fell short of complying with the seven main criteria for developing an effective NRP. The criteria (table 1) include availability of data visualizations; multilingual access; open data and download options; open data

licenses; availability of APIs; national metadata; and proxy indicators on NRPs.

The highest implementation of NRP criteria was scored by Egypt (50 per cent) followed by both Oman and Qatar (45 per cent), then Jordan (35 per cent) and the State of Palestine (30 per cent). The rest of the countries are in the initial stages of NRP development with a 15 per cent implementation score, gained from complying with the multilingual accessibility criteria.

Figure 1. Countries' NRP implementation score

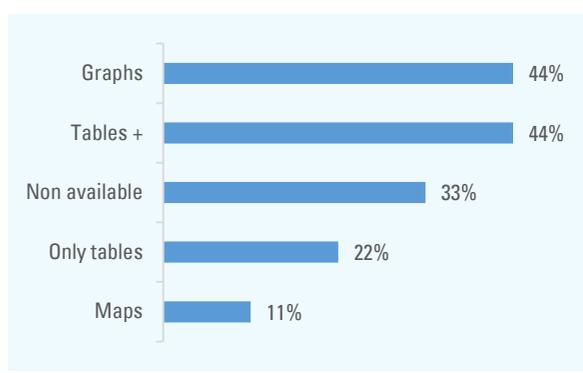


The details of the analysis for each of the seven criteria are as follows:

1. Data visualizations

Data visualizations, such as graphs, maps and dashboards, can enable users to more easily and quickly understand and interpret data. Graphs can demonstrate changes over time or highlight key variables like sex, age or region. Maps can help identify geographical variations in development, and dashboards can help identify data gaps and potential sources.

Figure 2. Data visualizations by type



The use of data visualizations on NRPs helps readers understand the meaning of the data presented. More than half of the Arab platforms (67 per cent) had some features of visualization. The State of Palestine and the United Arab Emirates have presented only tables, while Bahrain, Morocco and Saudi Arabia did not have any visualizations. Qatar was the only country that included maps on its NRP.

2. Multilingual accessibility

Language accessibility is directly related to the commitment to 'leave no one behind', recognizing that the SDGs and their targets should be accessible and understood by everyone.

Almost all platforms (89 per cent) were bilingual – a positive characteristic for accessibility. Arabic and English were the most common languages used by all countries, except for Morocco whose platform was only in French. Having English and Arabic as the only options available on NRPs may hinder data use for individuals that have limited knowledge of those languages.

Figure 3. Multilingual access

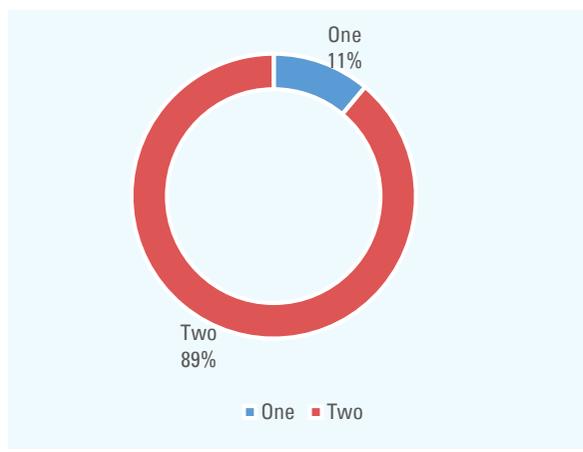
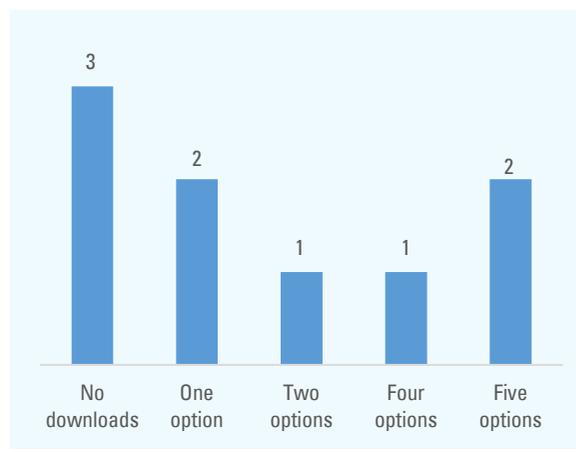


Figure 4. Options to download data



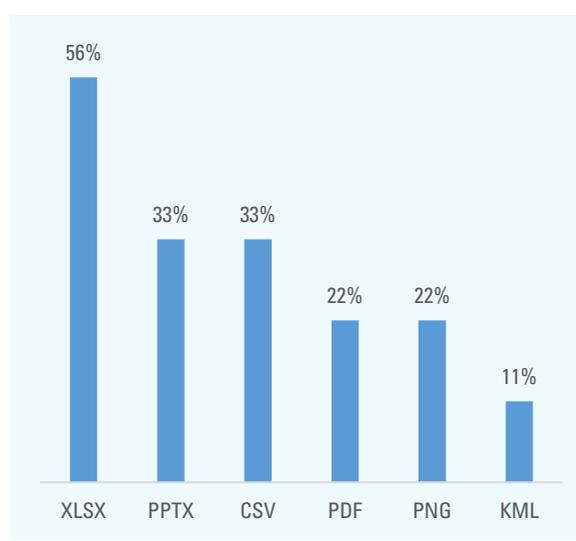
3. Open data and download options

The ability to download data is one of the most important characteristics of a platform. Providing a variety of different formats facilitates the online experience and encourages more downloads. The common download formats are PowerPoint (PPTX), Excel (XLSX), Adobe Acrobat Reader (PDF), Image (PNG), Comma-separated Values (CSV) and Keyhole Markup Language (KML),⁹ which display geographic data in an Earth browser such as Google Earth.

The SDG platforms of Egypt and Jordan were the only ones that had five options to download data, followed by Oman that had four options and the United Arab Emirates that had two options. The State of Palestine and Qatar had only one option. Bahrain, Morocco and Saudi Arabia did not have any options to download data. Nevertheless, most countries' platforms had a machine-readable format option, which allowed users to easily process data using a computer.

As shown in figure 5, the most prevalent download format was Excel (56 per cent). The platform of the United Arab Emirates was the only one that provided the Keyhole Markup Language (KML) format download option. Whereas platform of Jordan was the only one that provided Jstat and JavaScript Object Notation (JSON) format download options.

Figure 5. Types of downloads



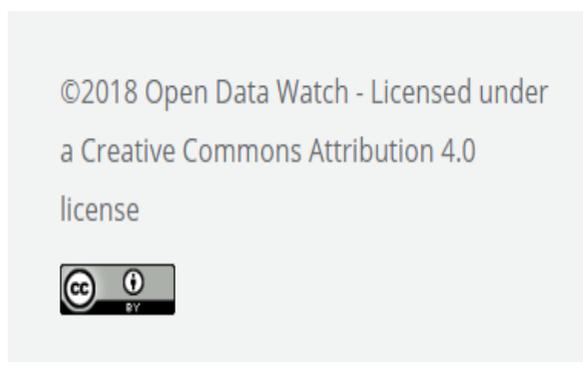
⁹ <https://developers.google.com/kml>.

4. Open data licenses

All NRPs have copyright licenses that provide users with acceptable legal terms for using data.

There are a variety of licenses that can be chosen for outline usage on NRPs. However, the NRP of the State of Palestine is the only platform that has creative commons licensing (CC-BY),¹⁰ so the remaining Arab NRPs do not have a specified license.

Figure 6. Creative Common License

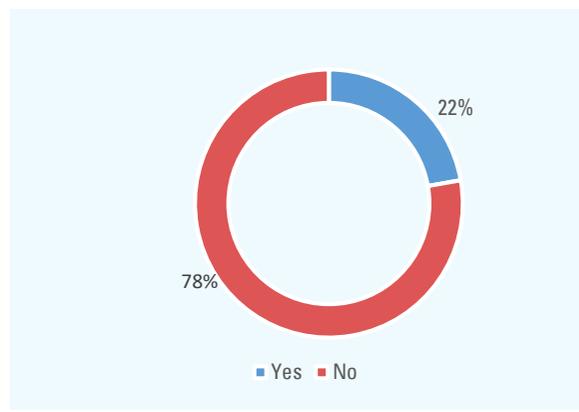


5. Application programming interfaces

APIs enable users to automatically pull and use data on other websites. They can be used to reduce the reporting burden within Government by automatically updating and channelling data between ministries and sources as they become available. The public can use them to disseminate data for use in applications.

Although there are many benefits to providing APIs, 78 per cent of Arab NRPs do not have them. Only the platforms of Egypt and Oman have publicly available APIs.

Figure 7. Availability of APIs

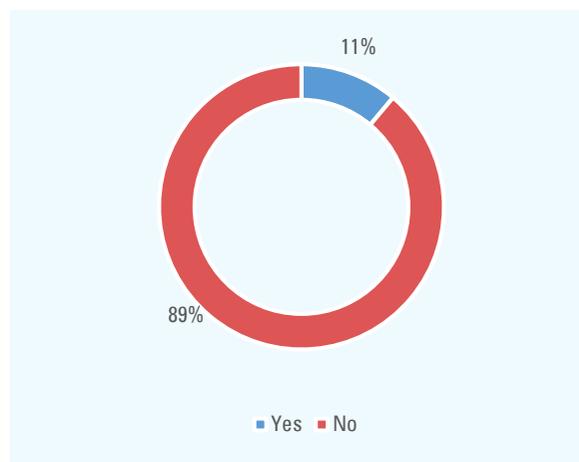


6. National metadata

National metadata provides information on data available on a NRP for each SDG indicator. The following reference metadata should be made available at a minimum:

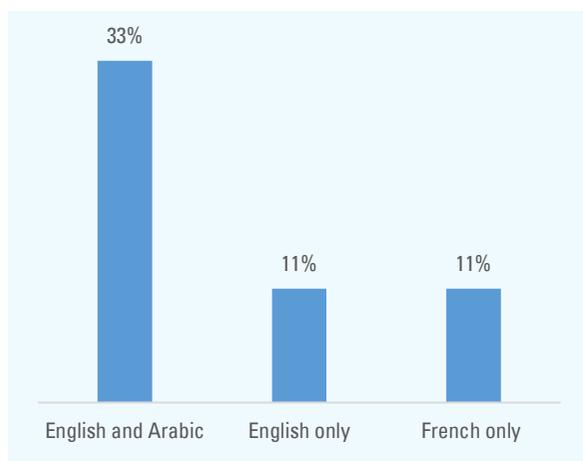
- (a) Definition of an indicator;
- (b) Method of calculation;
- (c) Source of data.

Figure 8. Availability of national metadata



¹⁰ A type of license that typically allows use and reuse with citation. <https://creativecommons.org/licenses/>.

Figure 9. Languages of metadata



The availability of national metadata provides users with detailed information on each indicator: what it is, how it is calculated, and where the data came from.

A total of 78 per cent of NRPs have United Nations metadata on their platforms. However, the assessment showed that 89 per cent did not include national metadata. Qatar was the only NRP that provided national metadata in English and Arabic.

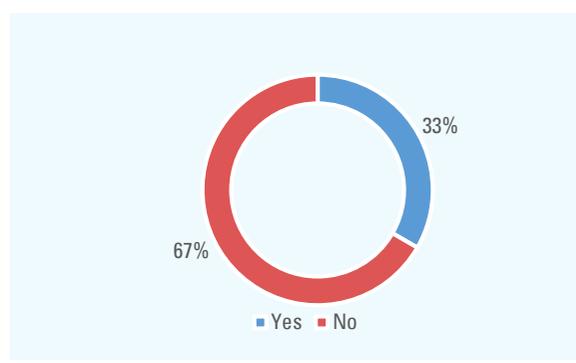
Most available metadata (United Nations or national) were displayed in English and Arabic languages (33 per cent).

7. Proxy and local indicators

Few countries have included a significant number of proxy indicators or national/local indicators on their NRPs.

More than half (56 per cent) did not use any proxy/local indicators. Only Bahrain, Morocco, Oman and the State of Palestine have data on proxy indicators.

Figure 10. Availability of proxy indicators



IV. Conclusions

Reporting and disseminating information on the 2030 Agenda for Sustainable Development comes with significant data and statistical challenges. With one decade left until 2030, less than half of Arab countries have SDG reporting platforms. This does not only impede the process of country monitoring and reporting at the national level, but also negatively impacts the regional and global levels.

The inability to compile data on a single unified platform creates technical challenges and delays progress. Countries that fail to provide transparent and open data hinder the process of assistance in areas where they are in most need of assistance.

Many African countries, including Algeria, the Comoros, Djibouti, Libya, Mauritania, Somalia,

the Sudan and Tunisia, do not own their country's SDG platforms, which were largely developed by the African Development Bank. Most platforms suffer from underutilization owing to a lack of stakeholder engagement, sustainability and prompt data updates.

ESCWA is committed to providing assistance and support to member States in developing country-owned SDG reporting platforms that can serve to gather, host, secure and display national SDG indicator data and metadata. These platforms will be open-source tools for functions such as data quality checks and analysis. ESCWA will undertake capacity-building activities to maintain and sustain these national platforms, and work on expanding them to national statistical systems, so as to modernize national statistical data and processes.

Annex

Table A1. Availability of data visualization on SDG national platforms

Country	Maps	Graphs	Tables +	Only Tables	Not available
Bahrain					X
Egypt		X	X		
Jordan		X	X		
Morocco					X
Oman		X	X		
State of Palestine				X	
Qatar	X	X	X		
Saudi Arabia					X
United Arab Emirates				X	

Table A2. Availability of languages used on SDG national platforms

Country	Number of languages		Languages
	One	Two	
Bahrain		X	Arabic, English
Egypt		X	Arabic, English
Jordan		X	Arabic, English
Morocco	X		French
Oman		X	Arabic, English
State of Palestine		X	Arabic, English
Qatar		X	Arabic, English
Saudi Arabia		X	Arabic, English
United Arab Emirates		X	Arabic, English

Table A3. Availability of data downloads options and types of downloads

Country	Options					Type of downloads					
	No downloads	One option	Two options	Four options	Five options	PPTX	XLSX	PDF	PNG	CSV	KML
Bahrain	X										
Egypt					X	X	X	X	X	X	
Jordan					X	X	X		X		
Morocco	X										
Oman				X		X	X	X	X		
State of Palestine		X					X				
Qatar		X								X	
Saudi Arabia	X										
United Arab Emirates			X				X				X

Table A4. Availability of open data licenses on SDG national platforms

Country	Open data license	No specific license
Bahrain		X
Egypt		X
Jordan		X
Morocco		X
Oman		X
State of Palestine	Creative Commons License	
Qatar		X
Saudi Arabia		X
United Arab Emirates		X

Table A5. Availability of APIs on SDG national platforms

Country	Available API	Do not have API
Bahrain		X
Egypt	X	
Jordan		X
Morocco		X
Oman	X	
State of Palestine		X
Qatar		X
Saudi Arabia		X
United Arab Emirates		X

Table A6. Availability of metadata and language of metadata disseminated on national SDG platforms

Country	United Nations metadata		National metadata		Languages		
	Yes	No	Yes	No	English and Arabic	English only	French only
Bahrain		X		X			
Egypt		X		X			
Jordan		X		X			
Morocco	X			X			X
Oman	X			X	X		
State of Palestine	X			X	X		
Qatar		X	X		X		
Saudi Arabia		X		X			
United Arab Emirates	X			X		X	

Table A7. Availability of proxy indicators on national SDG platforms

Country	Available proxy indicators	
	Yes	No
Bahrain	X	
Egypt		X
Jordan		X
Morocco	X	
Oman	X	
State of Palestine	X	
Qatar		X
Saudi Arabia		X
United Arab Emirates		X

Table A8. Breakdown of proxy indicators by goal number

Country	Detailed proxy indicators	
	Goal number	Number of proxy indicators
Oman	1	2
	2	1
	11	1
	13	1
	15	3
State of Palestine	3	1
	16	4
Morocco	2	1
Bahrain	15	1



