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Readiness of Myanmar's Official Statistics for the Sustainable Development Goals

Joint data assessment by the Central Statistical Organization and UNDP

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[1] This assessment was carried out jointly by Mr. Harold Coulombe and Ms. Marie-Noelle Dietsch for UNDP, and Ms. Htay Htay Htun, Ms. Nyo Mar Aung and Ms. Nyo Nyo San from the Central Statistical Organization (CSO). This project was funded by UNDP Myanmar under the supervision of Ms. Hyeran Kim and Mr. Felix Schmieding. UNDP's democratic governance programme is supported by the governments of Finland, Sweden and the United Kingdom. We thank all of the above for making this project possible. This work could not have been done without the full support from a long list of people, especially CSO Director General Dr. Wah Wah Maung. The exercise also greatly benefitted from two widely attended workshops held at CSO. The authors can be reached at, respectively, harold.coulombe@gmail.com, mn.dietsch@gmail.com and mnped.cso@gmail.com.

Executive Summary

Following the MDGs, the international community recently adopted a new global development framework, the 17 Sustainable Development Goals (SDGs) along with 169 targets and a long list of indicators to monitor them. The SDGs cover the period from 2016 to 2030.

This report examines the availability of data necessary to measure all indicators within the SDG framework. The approach of this data assessment, generally speaking, is to classify each SDG indicator as (a) already available/computed, (b) computable from existing data sources, or (c) additional data collection required. In the process of achieving this classification, a wealth of information on each indicator was collected, and this is documented in an accompanying spreadsheet. The computation of missing SDG indicators was not part of the exercise, but the findings are expected to inform and facilitate upcoming efforts by the government and its partners in filling the identified data gaps.

Although around 250 global indicators are defined in the SDG framework, this data assessment covered 288 SDG indicators since some of them had to be broken down in order to facilitate their computation.

We show that the National Statistical System of Myanmar has some work ahead of it in terms of preparing for the monitoring of the SDG indicators. Only 44 of the SDG indicators are currently produced and readily available at the national level. However, the good news is that many (97) of the missing indicators can be computed from existing data sources – often with little effort - and don't require any additional data collection. We conclude that Myanmar is in a decent position to start monitoring the SDGs, and should start as soon as possible in putting its existing data to full use for the SDGs.

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List of Abbreviations

CSO	Central Statistical Organization (Myanmar)
CPI	Consumer Price Index
DHS	Demographic and Health Survey
ECOSOC	Economic and Social Council
FAO	Food and Agricultural Organization
GoM	Government of Myanmar
HIES	Household Income and Expenditure Survey
IAEG-SDGs	Inter-Agency and Expert Group on SDG Indicators
IHLCA	Integrated Household Living Conditions Assessment
LFS	Labour Force Survey
MDGs	Millennium Development Goals
MLCS	Myanmar Living Condition Survey
MMSIS	Myanmar Statistical Information Service
MPLCS	Myanmar Poverty and Living Condition Survey
NSDS	National Strategy for the Development of Statistics
SDGs	Sustainable Development Goals
UNDP	United Nations Development Programme
UNSC	United Nations Statistical Commission

1. Introduction

Following the tremendous effort by most developing countries attempting to achieve the MDGs over the period between 1990 and 2015, a series of meetings, consultations and working groups led to a post-2015 development agenda encompassing seventeen goals[2]. These Sustainable Development Goals (SDGs) and their 169 targets include but go far beyond the MDGs in their scope.

Moreover, the United Nations Statistical Commission created an Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs), composed of Member States and including regional and international agencies as observers. The IAEG-SDGs was tasked to develop an indicator framework for the SDGs. A first list of proposed indicators was published in March 2015[3]. Subsequently, this was further refined, and a final list of 241 Sustainable Development Goal indicators was presented to and endorsed by the 47th session of the UN Statistical Commission in March 2016[4]. This list will be further submitted to the Economic and Social Council (ECOSOC) and the UN General Assembly for adoption later this year.

Meanwhile, the work of the IAEG-SDGs continues, in particular on developing the metadata (i.e. definitions, computation methods, etc.) for each of the proposed indicators.[5]

In order to support the Government of Myanmar in preparing for the monitoring of the SDG indicators, the Central Statistical Organization of the Ministry of Planning and Finance (CSO) and UNDP jointly examined the current readiness and availability of Myanmar's data to measure the SDG indicators.

This report presents the findings of the data assessment. It is structured as follows: Section 2 outlines the methodology applied and data sources used; section 3 presents the main findings. Finally, section 4 of the report concludes and proposes next steps for operationalizing the monitoring of SDG indicators.

It should be noted that this report presents only a summary overview of the findings from the data assessment. The report is accompanied by a large spreadsheet which provides detailed information for each SDG indicator. While this report constitutes a snapshot (in May 2016) of Myanmar's readiness for measuring the SDG indicators at this point in time, the more detailed spreadsheet should be considered a "living document" that can be used and updated as Myanmar improves on its data readiness for the SDGs.

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[2] These are contained in paragraph 51 United Nations Resolution A/RES/70/1 of 25 September 2015. Information on the whole process can be found on the IAEG-SDG website; http://unstats.un.org/sdgs/iaeg-sdgs/

[3] "Technical report by the Bureau of the United Nations Statistical Commission (UNSC) on the process of the development of an indicator framework for the goals and targets of the post-2015 development agenda - working draft" March 2015.: https://sustainabledevelopment.un.org/content/documents/6754Technical%20report%20of%20the%20UNSC%20Bureau%20%28final%29.pdf

[4] Annex IV of the "Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators" gives the final list of 241 proposed Sustainable Development Goal indicators http://unstats.un.org/unsd/statcom/47th-session/documents/2016-2-IAEG-SDGs-Rev1-E.pdf

[5] This assessment uses the latest version of the metadata available by end of May 2016.

2. Methodology and data sources

Broadly speaking, the approach of this data assessment is to classify each SDG indicator as (a) already available/computed, (b) computable from existing data sources, or (c) additional data collection required – e.g. conducting new surveys, adding new questions to existing surveys, or starting new information gathering efforts in administrative databases. In the process of achieving this classification, a wealth of information on each indicator was collected (e.g. on where exactly the respective data can be found, how it can be disaggregated, etc.), and this is documented in the accompanying spreadsheet.

The approach outlined above is somewhat simplified, and the assessment was not quite as straightforward. Additional steps of the applied methodology included:

- **Splitting of indicators** where the official indicator definition *de-facto* contained multiple statistical indicators: For example, indicator 9.1.2 concerning "Passenger and freight volumes (by air, road, rail and waterways)" needs to be split into eight different indicators: passenger by air, passenger by road, passenger by rail and passenger by waterways, plus freight by respectively air, road, rail and waterways as well.
- **Changing the phrasing** of indicators: Around 17% of indicators required minor amendments to their phrasing in order to make them usable in a statistical sense or to take into account the definition of actual data available in Myanmar. The change in phrasing was minimal and did not change the nature of the indicator. The health goal required the most rephrasing.
- Assessing the **availability of metadata**: as mentioned above, the IAEG-SDG's work on the metadata (indicator definitions, computation methods, etc.) is ongoing. In fact, currently available metadata covers only around 74% of the SDG indicators. For a few of the remaining cases, indicator definitions appeared obvious so we assumed metadata was available. Where no clear metadata/definition is currently available, it is not possible to conduct an assessment of data readiness.
- Identifying **internationally-computed indicators**. The large majority of SDG indicators are to be computed from national data sources. However, 24% of indicators will be computed by international agencies, and are thereby not the primary responsibility of national statistical systems. In most cases, those indicators are synthetic indices computed by international organization such as FAO.

The methodology followed by this data assessment was informed by similar exercises conducted by UNDP in other countries, e.g. Mongolia. Findings were validated with data producers across government[6], as well as a wide range of Development Partners.

The 17 goals of the SDGs cover a great variety of socio-economic and natural dimensions that can be measured either at micro level (e.g. health or education) or at macro level (e.g. inequality, climate or infrastructure). Hence, the computation of SDG indicators requires data from many sources, some easily available and others less so. Broadly speaking, the different indicators can be calculated either from micro sources (such as surveys or the

[6] In particular, two workshops were held in Nay Pyi Taw in March 2016 and May 2016 with more than 150 participants from across government and development partners.

population census), or from administrative databases (such as those maintained by the different ministries).

The key micro-level databases for Myanmar are:

- Integrated Household Living Conditions Assessment 2004/05 and 2010/11 (IHLCA)
- Household Income and Expenditure Survey 2012 (HIES)
- Myanmar Poverty and Living Condition Survey 2014/15 (MPLCS)
- Myanmar Living Conditions Survey 2016/17 (MLCS, forthcoming)
- Population and Housing Census 2014
- Labour Force Survey 2015 (LFS)
- Demographic and Health Survey 2016 (DHS)

In terms of administrative sources of data, a variety of reports produced by GoM ministries were reviewed. A full list can be found in the spreadsheet accompanying this report.

3. Main findings of the assessment

According to the IAEG-SDG's final list of SDG indicators, the 17 goals and associated 169 targets should be monitored by 241 indicators, as shown in Table 1 below. The number of indicators varies substantially across goals. While Health, Justice & Security and Global Development have more than 20 indicators each, energy has only six indicators and climate seven.

As noted in the methodology section above, some of the "official" indicators in fact contain a multitude of statistical indicators and therefore need to be split up further.[7] All subsequent analysis of this report will therefore refer to the 288 "split" indicators.

[7] Indicators that had to be split were mostly concentrated in three goals: education, gender and growth & employment, while almost half the goals did not require any splitting.

Table 1: List of Sustainable Development Goals (SDGs)

No.	Short name[8]	Full name	# of "official" indicators	# of indicators after splitting
1	Poverty	End poverty in all its forms everywhere	12	21
2	Hunger	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	14	15
3	Health	Ensure healthy lives and promote well-being for all at all ages	26	29
4	Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	11	26
5	Gender	Achieve gender equality and empower all women and girls	14	18
6	Water	Ensure availability and sustainable management of water and sanitation for all	11	11
7	Energy	Ensure access to affordable, reliable, sustainable and modern energy for all	6	6
8	Growth & Employment	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	17	20
9	Infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	12	19
10	Inequality	Reduce inequality within and among countries	11	11
11	Urban	Make cities and human settlements inclusive, safe, resilient and sustainable	15	15
12	Consumption	Ensure sustainable consumption and production patterns	13	14
13	Climate	Take urgent action to combat climate change and its impacts	7	7
14	Oceans	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	10	10
15	Forests	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	14	16
16	Justice & Security	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	23	23
17	Global	Strengthen the means of implementation and revitalize the global partnership for sustainable development	25	27
	Total		**241**	**288**

[8] Short names assigned by the authors of this report for easy reference, they are not official.

Table 2 below summarizes the main findings of the SDG data assessment. In assessing each of the 288 indicators, we created the following classification:

1. ***Indicators readily available***: Those indicators were considered well defined as well as being already computed. For example, the "Maternal mortality ratio" (indicator 3.1.1) has already been computed and published in the CSO Yearbook.

2. ***Indicators available after little effort***: the information needed to compute those indicators was found, but the actual computation has not been done yet. For example, regarding the "Mortality rate attributed to unintentional poisoning" (indicator 3.9.3), the total number of deaths due to unintentional poisoning is available, but still needs to be combined with population data to calculate a mortality rate – the computation is relatively straightforward.

3. ***Indicator available after more effort***: similar to the previous category, we find that the information needed to compute those indicators is available from existing data sources, but the computation will be much more demanding. For example, the "Coverage of essential health services" (indicator 3.8.1) could be computed by aggregating existing data from different sources. This could be done with existing data but it is a non-trivial task.

4. ***Additional data collection required***: for indicators falling in this category, we could not find any existing information and therefore further effort in data collection would be needed before those indicators can be computed. For example, it would be possible to compute the "Percentage of schools with access to basic drinking water" (indicator 4.a.1e) by asking the Basic Education Department from the Ministry of Education to collect that information using their township offices.

5. ***Indicator non applicable in the case of Myanmar***: Not all global indicators are relevant in each country. In the case of Myanmar, we find that only a single indicator was not relevant (Indicator 5.3.2: "Percentage of girls and women aged 15-49 years who have undergone Female Genital Mutilation/Cutting, by age group").

6. ***Not clear***: A substantial number of indicators remained unclear. In most of these cases, no international metadata is available so far, and further guidance from the IAEG-SDGs is required. (For example indicator 1.b.1 "Proportion of government recurrent and capital spending to sectors that disproportionately benefit women, the poor and vulnerable groups")

99. ***Responsibility of international institutions:*** Indicator is computed by an international agency, and is thereby not the primary responsibility of Myanmar's national statistical system.[9] In most cases the computation of those indicators are

[9] A subset of indicators in category "99 Responsibility of international institutions" will be computed by international agencies but the calculation relies on nationally-produced raw data. Hence, a judgement call had to be made whether to classify such indicators as 99 or rather in the range 1-4 for nationally compiled data. Following a careful review, it was decided to categorize them as 99 for a variety of reasons, including the fact that international agencies don't always state the exact data required for their calculations. International agencies will undoubtedly establish their own mechanisms for gathering relevant data from

part of their regular activities. Example: indicator 14.4.1 "Proportion of fish stocks within biologically sustainable level", this indicator has been routinely monitored by FAO since 1974.

Although only 44 indicators are readily available, a further 78 can be computed very easily. We also find 19 indicators that could be computed in, say, less than a week as the required raw data is fully available. A more serious issue concerns the fourth category, with 53 indicators for which new data collection effort would be needed. The education goal has the highest number of indicators (12) in that fourth category but most of them (indicators 4.a.1a to 4.a.1g) could be tackled in the same data collection effort. The "Justice & Security" goal also requires serious additional data collection effort.

Since the perspective of this data assessment was from the point of view of the National Statistical System of Myanmar, this report does not go into further detail on the indicators that are the responsibility of international institutions (which may or may not yet be available), and focuses instead on the indicators that are the unique responsibility of national institutions.

Table 2: Summary Status of Indicators, by Goal

	Readily available	Available after little effort	Available after more effort	Additional data collection required	Not applicable to Myanmar	Not clear	Responsibility of international institutions
Poverty	2	14	0	1	0	4	1
Hunger	0	5	0	4	0	2	4
Health	6	12	8	2	0	0	1
Education	0	11	1	12	0	1	1
Gender	2	7	1	4	1	0	3
Water	4	1	2	1	0	0	3
Energy	0	2	0	0	0	1	3
Growth & Employment	8	5	0	2	0	0	4
Infrastructure	7	5	3	4	0	0	1
Inequality	1	2	1	2	0	1	4
Urban	2	4	1	4	0	1	3
Consumption	0	0	1	3	0	2	8
Climate	1	1	0	1	0	3	1
Oceans	0	0	1	4	0	1	4
Forests	1	4	0	3	0	1	7
Justice & Security	6	3	0	5	0	2	6
Global	4	2	0	1	0	6	14
Total	44	78	19	53	1	25	68
Total (%)	15.3	27.1	6.6	18.4	0.3	8.7	23.6

national sources, and it is difficult to predict for each indicator what implications exactly this will have on the national statistical system of Myanmar. Therefore, the "99" classification appeared justified for the time being and from the point of view of the national statistical system.

Figure 1 below summarizes the findings from Table 2, and emphasizes the large amount of indicators which could be computed with little effort from existing data sources.

Figure 1: Status of indicators (%), overall

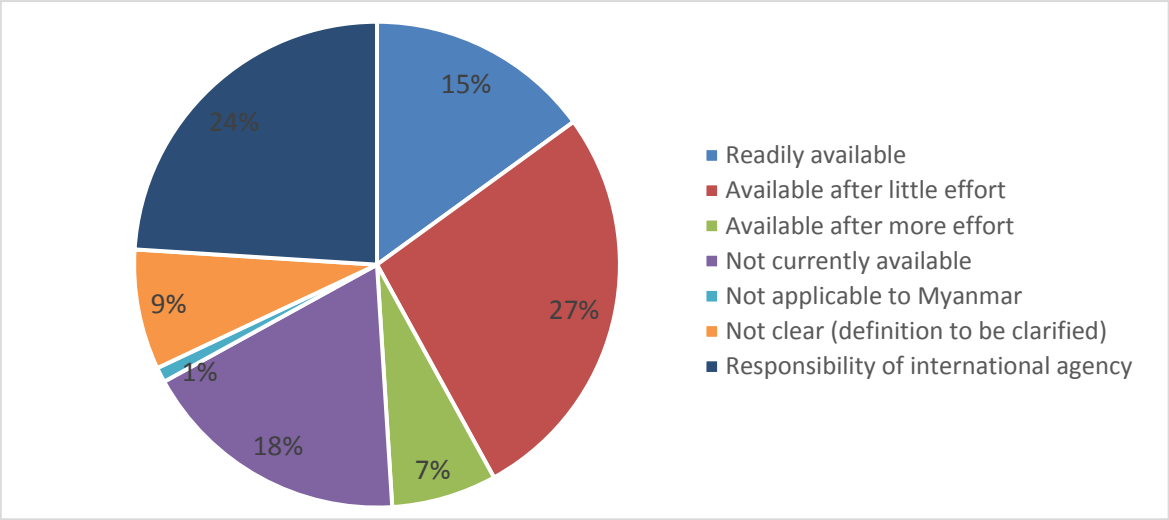
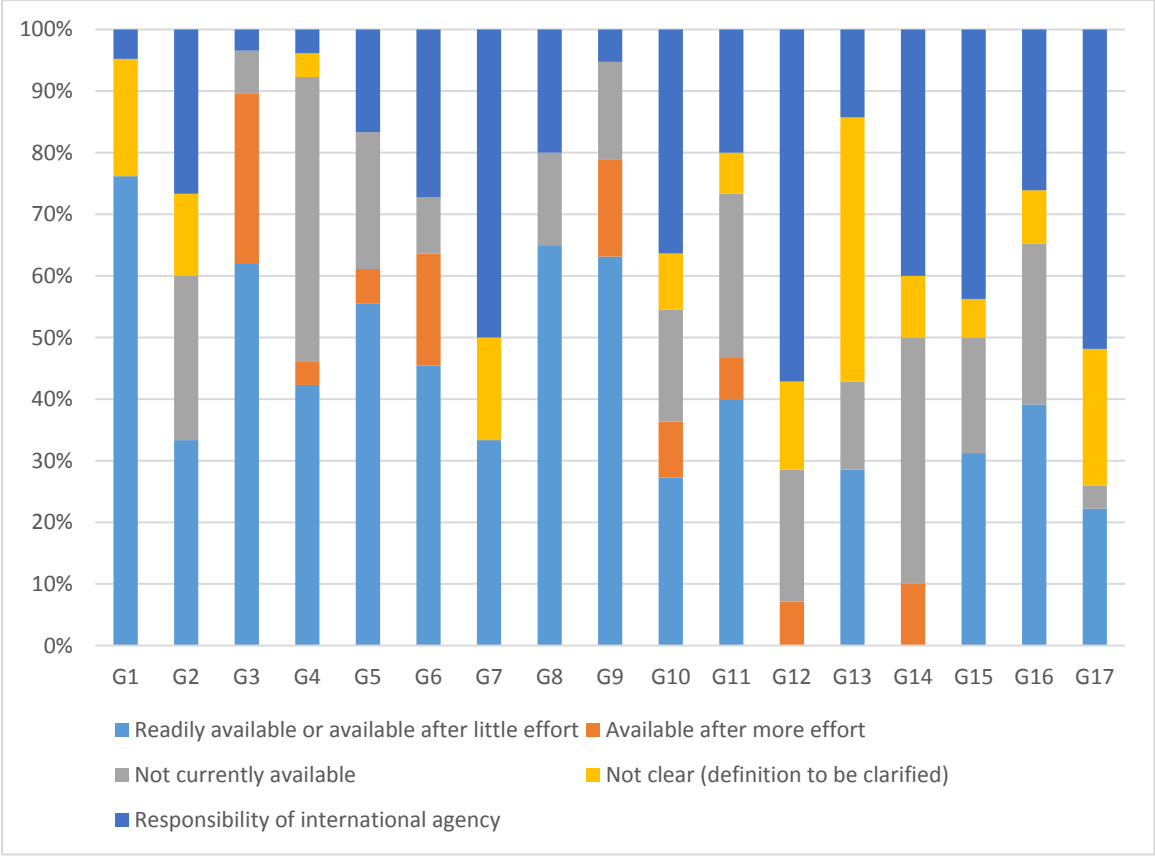


Figure 2 then presents the status of SDG indicators by goal. When paying special attention to the category "Not currently available", goals 4 (education) and 14 (oceans) stand out, in percentage terms.

Figure 2: Status of indicators (%), by SDG goal



4. Conclusions and proposed next steps

Our main findings from the SDG data assessment show that the National Statistical System of Myanmar has some work ahead of it in terms of preparing for the monitoring of the SDG indicators. Only 44 of the SDG indicators are currently produced and available at the national level. However, the good news is that many of the indicators can be computed from existing data sources – often with little effort - and don't require any additional data collection. For conclusions' sake we can disregard the indicators that are either not clearly defined yet, not applicable to Myanmar or are the responsibility of an international agency. For the remaining indicators, Myanmar's statistical system could achieve a 73% coverage (141 out of 194 indicators) from its existing data sources, without the need for costly additional data collection and just by putting available data to full use. This would suggest that Myanmar is in a decent position to start monitoring the SDGs; however, it should tackle possible computations soon.

In terms of next steps for GoM on the statistical side of the SDGs, the following appears advisable:

- A substantial proportion of SDG indicators still lack metadata/definitions. IAEG-SDGs is expected to provide these within a year. CSO should continue to monitor the developments and update the findings from this assessment (through the accompanying spreadsheet tool) accordingly;
- Formally establish CSO as the lead institution responsible for monitoring the SDG indicators. Needless to say, data on SDG indicators will come from a variety of ministries, but it essential that a single institution is in charge of compilation and quality assurance. The IAEG-SDG group recommend that national statistical agencies (such as CSO) should be the responsible lead institutions for measuring SDG indicators;
- SDG indicators are usually grouped by SDG goal, but this generates sets of statistical indicators that are highly cross-cutting. A practical way of operationalizing the monitoring of SDGs in Myanmar might be to re-group the indicators according to the existing NSDS clusters[10]. Each cluster could then oversee and coordinate the monitoring of its assigned SDG indicators. A suggestion for such an allocation of SDG indicators to NSDS clusters has been made in the accompanying spreadsheet tool;
- For indicators that are readily available, ensure that the national institutions producing them are aware of the relevance of their data for the SDGs, so that they continue to monitor these indicators in a timely and consistent manner over the coming years;
- Ensure that upcoming surveys (e.g. Myanmar Living Conditions Survey, next Labour Force Survey, etc.) are aware of the SDG indicators, in particular the ones which require additional data collection, and make an effort to include SDG-related questions wherever possible;
- Provide capacity building for relevant ministries and CSO in computing SDG indicators, with a special focus on the missing ones that can be calculated from existing data sources;

[10] Currently, the six NSDS Clusters are the following: *National Account and Statistics*, *Survey Coordination and Statistical Standards*, *Social and Vital Statistics*, *Agricultural and Rural Statistics*, *Energy and Environment Statistics* and *Trade and Investment Sector Statistics.*

- Regarding indicators for which data is not currently available, a careful assessment should be made on the costs and benefits of additional data collection. There is a widespread understanding that the SDG targets require prioritization – this may also apply to monitoring of SDG indicators;
- The IAEG-SDG group encourages countries to supplement the global targets and indicators with local ones. Such additional targets and/or indicators might originate from country-specific issues or local priorities. If considered useful by the GoM, a debate could be started on such additional indicators for Myanmar;
- Produce a first SDG report, which provides baseline figures for all indicators that are currently available. An effort should be made to produce in time and include in this report as many indicators as possible from the category that is computable from existing data sources. The report should also include (in an annex or companion publication) methodological guidelines for each indicator, to ensure the different indicators will still be computed the same way in 2030 as they were initially done in 2016. Obviously, these should follow as much as possible the international metadata, but may allow for national specificities. Needless to say, the monitoring of the SDGs is a continuous effort, and this initial publication should be considered the first in a series;
- Ensure that the available SDG indicators are easily accessible in a dedicated online repository, e.g. a dedicated sub-category for SDG indicators in CSO's existing MMSIS website.