CLIMATE CHANGE STATISTICS / INDICATORS SELF-ASSESSMENT TOOL



Global Set of Climate Change Statistics and Indicators



United Nations Statistics Division



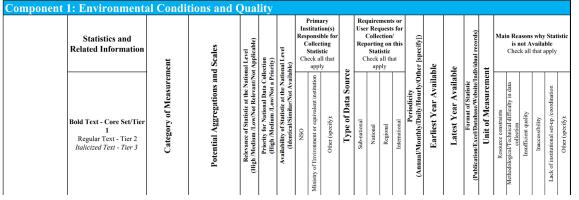
- The Climate Change Statistics / Indicators Self-Assessment Tool
- Structure of Self Assessment Tool
- Process and Pilot Exercise
- **G** Feedback provide by countries and agencies



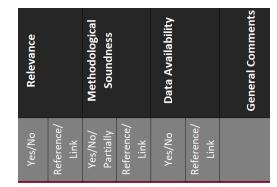
Climate Change Statistics / Indicators Self-Assessment Tool and the Global Set of Climate Change Statistics and Indicators

The Self-Assessment Tool was prepared by building on the experience of countries applying the FDES (Framework for the Development of Environment Statistics) Environment Statistics Self-Assessment Tool (ESSAT) and the Global Consultation Part I and Part II.





Global Consultation



Methodological Relevance Data / statistic / indicator Characteristics Soundness Relevance/priority for **Requirements or user** Primary (tools, technology, etc.) Data / statistic / indicator Main Reasons why Statistic / Ir climate change - related requests for collection / Institution(s) availability is not available or not upda reporting on this Statistic collecting this policies Priority for National Data Publication/Excel/Data 2 Ministry of Environment Lack of institutional set-Potential Aggregations and Scales Unit of Measurement Earliest Year Available Latest Year Available Resource constraints ethodological/Technic equivalent institution Ype of Data Source Format of Statistic / al difficulty in data Insufficient quality up /coordination Category of Measurement Yes/Partially/No **Classifications or** Collection ual/Monthly/Daily, Other (specify): Inaccessibility lv/Other [specify Reference/ Link Sub-national International Reference/ Link Reference/ Link Periodicity National Regional groupings Data type Yes/No/ Partially evel to th Indicator collection Yes/No at the OSN ogy used

CISAT

Climate Change Statistics / Indicators Self-Assessment Tool and the Global Set of Climate Change Statistics and Indicators

- The Climate Change Statistics / Indicators Self-Assessment Tool gives UN member states an opportunity to undertake a thorough and detailed assessment of the statistics and indicators in the Global Set.
- This assessment will assist in initiating the development of a national set that will help countries to develop climate change policies or to strengthen and implement existing ones more successfully. It will also contribute to the reporting requirements under the United Nations Framework Convention on Climate Change (UNFCCC).
- Moreover, this assessment will help to deepen the understanding of the capacities available and needed to compile the indicators and statistics which are relevant to the country.



The Climate Change Statistics / Indicators Self-Assessment Tool consist in two parts:

Part I: Institutional Dimension

Part I focuses on the overall institutional and organizational structure of national statistics in the country and on specific information regarding climate change statistics in terms of, inter alia, policy frameworks, mandates, institutional setup, organization, collaboration, resources, international cooperation and uses.

It is divided into the following sections:

- a) Identification of institutions
- b) National policies/strategies
- c) Mandate and organization of climate change statistics
- d) Production and reporting of climate change statistics
- e) Inter-institutional collaboration
- f) Technical assistance and training and
- g) The way forward in climate change statistics



The Climate Change Statistics / Indicators Self-Assessment Tool consist in two parts:

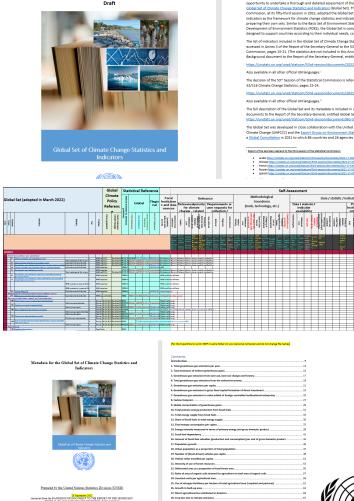
Part II: Statistics / indicators Level Assessment:

- The content of Part II is more technical and specific to the field of climate change statistics and would possibly require the involvement of a larger number of stakeholders.
- It is based on the Global Set and its metadata.
- It follows the hierarchical structure of the Global Set (in descending order: area, topic, indicator, statistic) and;
- serves as a tool to assess the national relevance, importance, methodological soundness, data availability and sources of the individual statistics/indicators etc.
- Help to identify relevant quantitative and qualitative data gaps, and to develop a plan for filling them with a view to strengthening climate change statistics according to national priorities, needs and available resources.



Draft Self Assessment Tool - Package (based on the Global Consultation, under development)

- Assessment guidance: short introduction and guidance for completing the selfassessment;
- Part I: Institutional Dimension of Climate Change Statistics and Indicators: aims at collecting general information on the institutional dimensions of climate change statistics;
- Part II: Assessment of Climate Change Statistics and Indicators: each individual indicator and statistic can be assessed in terms of relevance, methodological soundness and data availability.
- Metadata sheets in a Word file are linked to each indicator in the Excel file (Part II) via hyperlinks.



Introduction

Climate Change Statistics / Indicators Self-Assessment Tool (<mark>CISAT</mark>



Draft Self Assessment Tool: Part I template

Climate Change Statistics / Indicators Self-Assessment Tool (CISAT)

Draft



Global Set of Climate Change Statistics and Indicators



prepared by the United Nations Statistics Division 21 August 2022

B. National policies/strategies

B1. Are there national policies or strategies related to climate change in place?

Yes (list policy or strategy and list responsible institution	m)
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🗆 No

B2. Is there a national statistical plan/programme/strategy in place (e.g., National Strategy for the Development of Statistics (NISDS))? (if there are more than one, list)

Yes (specify responsible institution)

Name of plan/programme/strategy	
Period	
Responsible Institution	
Website	

No Skip to question B3

B3. Is climate change statistics included in the national statistical plan/programme/strategy?

	No
Co	mments:

B4. Is there a national climate change statistics plan/programme/strategy in place?

New				

Name of	
plan/programme/strategy	
Period	
Responsible Institution	
Website	

🗆 No

1

C. Mandate and organization of climate change statistics

C1. Is there an institution with a legal mandate to produce or to coordinate climate change statistics?

A1		

C2. Is there a department, division or unit responsible for climate change statistics in the National Statistical Office (NSO)?

Yes
Name of department, division or unit:

No Skip to question C4

C3. What is the status of the climate change statistics department, division or unit in the NSO?

- A stand-alone department, division of unit
 With or within the environment statistics department, division or unit
- With or within the environment statistics department, division or unit with or within the environment statistics department, division or unit
- Within the social statistics department, division or unit
 Within the economic statistics department, division or unit
- Other (specify)

C4. Are there national institutions (e.g., Ministry of Environment, Meteorological Office, Ministry of Water, etc.) that have responsibility to collect climate change statistics or information?

Yes (Please list the most relevant ones)

*					
Name	e of	Contact Person	Position	Email	Website
Institu	ution				

No
 Comments:



Draft Self Assessment Tool: Part II template

						Globa	l Climate		Stati	stical Re	ference			
		Global Set (a	adopted in March 2022)			olicy erence	Method (stan fram		Global		Regional	Focal Institu data so		
Area	Number Topic	Indicator	Statistic	Themes	Paris Agreement	PAWP-Katowice Climate Package	(standard, guidelines, frameworks)	FDES Reference	SDG Reference	Sendai Framework Feference	UN-ECE Reference	(possible) National data sources	National focal institution	
D	RIVERS													Examples: Ministry of Environment; Ministry of Energy; etc.
		neenkouse gas emissions												
	1	Total greenhouse gas emissions per year	r Total emissions of direct greenhouse gases (excludin	1	GHG emissions GHG emissions	13.7s 13.7s	Decision 18/CMA.1, ch Decision 18/CMA.1, ch						Ministry of Environment Ministry of Environment	
	2	Total emissions of indirect greenhouse of		1	GHG emissions	13.75	Decision 18/CMA.1, chi					<u>, , , , , , , , , , , , , , , , , , , </u>	Ministry of Environment	
	3	Greenhouse gas emissions from land use	•	GHG emissions	13.75	Decision 18/CMA.1, chi						Ministry of Environment		
	4	Total greenhouse gas emissions from the national e	Equivalent to the indicator	2	GHG emissions			SEEA-CF; UN-E					Ministry of Environment	
	5	Greenhouse gas emissions per capita		1	GHG emissions			IPCC; FDES	[Similar to] FDES 3	.1.1.a Total emissions	of direct greenhouse	gases (GHGs), by gas		
	•	Self assessment tool	$(\mathbf{+})$:	•					

	Self-Assessment																													
Relevance Methodological Soundness												Data / statistic / indicator Characteristics																		
Relevance/priority for olimate change - related policies Requirements or user (tools, technology, etc.) Data / statistic / indicator availability								Primary Institution(s) Main Reasons why Statistic collecting this Statistic / Indicator updated																						
YesNo	Reference/ Link	Relevance of statistic / Indicator at the National Level	Priority for National Data Collection (High Medium	Sub-national	National	Regional	International	Yes/No/ Partially	Reference/ Link	Explanation	Type of Data Source	Category of Measurement	Unit of Measurement	Potential Aggregations and Scales	Classifications	Yes/Partially/No	Reference/ Link	Data type	Similarity of Statistic / Indicator at the National Level with the	Periodicity (AnnualMonthly DailyHourly/Oth er [specity])	Availabie Earliest Year Availabie	Format of Statistic / Indicator/ Publication/Exce WDatabase/Webs Ite/Individual record s/Other [specify] Lafest Year	NSO	Ministry of Environment or equivalent Institution	Other (specify):	Resource constraints	MethodologicaV Technical difficulty in data	in sufficient quality	Inaccessibility	Other (specify): Lack of Institutional set- ue /coordination
Heans releasing leasting attacks related pathics	Examples Lew; Stealegg; Regulatio (etc.	High Physica GausePhy Referent/Phys Applicable	High (H) Hodiaa (H) Law (L) Hala Poincily (HP)	Examples: Hanisipal alcalegies, regulations, els.	Encomplexi Innerconer politien; Porcel profestion; Halimod Josefenced	Examples: CARICOM; COMESA; ECOWAS; ECLAC; ESCAP; ECE; ECA-FSOMA	Examples: UHPCCC, Seadai Pransarah, SDC, CDD, Ala	da yaa aar lla welkadalayy aayyealed ia llar welaatala	Examplest Hanarkald norarq; Halinsal Forral Inscalarq; ala	Enample: and named krasses of insefficien langelen	(SS) Statistical encode (con- encode of con- encode of population, ferming, controllion	Provid antequeries antequeries in metadata, tropa antener, antener,	Examples: a3, laser, an	2.5patiat Aggergalian (edministration (e.g., astimat/ank- astimat/kasim() 3.Temporat documentions to a	Referent alconification on (e.g., ISIC consequent lager) Lond ane) or consector 10	(means afficial), eilter fean actional ar internations fammer]	Par rasaglet Statisticat Yesekaskaf Tarraleg	[produced by sounds in a [C], sound specificated data [C8], rationaled data [C], global souther in a data	Maallaad Similaa Nat Aastlada	Shaaad (A) Shaabby (H) Shaaby (D) Shaaby (R) Shaaby (agaabby)		 (Paklinstinens separal (P) (Encol Giber (C)) (Patakase (P)) 			Ministry of research, correct princts are be cla	finansial and/ar alaff reasolrain le		Manufiliated as une- estated as tasks - descard allow for Be assessment of Be guality and magazeability of Be doceated		
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Process of developing the CISAT:

The draft was developed between July and September 2022, combining the Global Consultation template with the FDES-ESSAT

Piloting is ongoing in several Caribbean, South American and African countries

EGES review with group work at the 9th meeting Further work will be needed on defining cell values and functionalities

Complete the tool by the year-end.



CISAT piloting aims to:

- Ensure adequate self-assessment questions, define if the tool applies beyond self-assessment – how to prioritize future statistical work
- Define the most suitable values for self-assessment to be filled in each cell

									Self	-Ass	sessi	ment	t													
(Glo	ba	Se	t		For	cal Institutions and	Relevance Metho												dolo ndne:	-					
							data sources climate change - related policies reporting on this								(t	tools,				tc.)			ata / st cator av			
Aled	Topic	Number	Indicator	Statistic	Tier	Themes	[possible] National data sources	National focal institution	Yes/No	. Reference/ Link	Kelevance of St Indicator at the I	Priority for National Data Collection (High /Medium /Low/Nota/	Sub-nation	National	Regional	Ę	Yes/No/ Partially	Reference/ Link	Main reason why methodology used is not sound	Type of Data Source	Category of Measurement	Unit of Measurement	Potential Aggregations and Scales	Classifications or groupings	Yes/Partially/No	Reference/ Link
					Examples: Ministry of Environment; Ministry of Energy; etc.	ce to nationa I	Exampl es: Law; Strategy ; Regulat	/Low/N ot	High (H) Medium (M) Low (L) Not a	es: Municip al/Local	bodies;	M;	es: UNFCCC, Sendai Framew	use the metho dology sugges	ples: Hous ehold	sound because of	Statistic al surveys (e.g.,	ed in	Exampl es: m3, tonne, mm	al Aggrega tions (admini		from : nationa	exampl e e: c Statistic s al c			
	-	124	Greenh	ouse gas removals (carbon sequestration) GHG removals (carbon sequestration) by ecosystems				m Enviromnet Protection Agency	related yes	ion; etc.	Relevan t/Not high high		e strategi yes yes	Forest protecti yes yes	; ECOWAS		ted in the yes yes	V; Natio <u>https:</u> https:	ent NA	Remote	metada ta, (e.g., Mass (of Mass (of	ftC	10.00	nt, region	internat I partially	
				GHG removals by technological processes		GHG ren		Department of Interior		https://v	wmedium	n medium	100	yes		100	NA	http://	/NA		Mass (of		catchme			No



CISAT piloting aims to:

- Explore possible scoring options for qualitative cells
- Define algorithms to assist the prioritization and planning of future statistical work

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	R			at		3	2	Proportion of municipal waste treated
- ;	E S	a F	m	₹	m	- ã	Te l	Municipal waste collected per capita
(n: nb	RELYes/No	METHYes/No/ Partially	-	Ye	Ŧ	—	Ξ	Water use per capita
4 P	z	₹≥		\$/No		÷	ត្	Ocean monitoring
-	Ŭ	্		6		÷	÷	Water monitoring systems
Adaptat Climate change adaptation 127 Proportion of sectors planning, budgeting and implementing climate change adaptation actions	3	0						o Air quality monitoring systems
Adaptat Climate change adaptation 127 Proportion or sectors planning, budgeting and implementing climate change adaptation actions Adaptat Climate change adaptation 128 Proportion of women in managerial positions	2	0	3					A Meteorological monitoring network
Adaptat Climate change adaptation 1228 Proportion of women in managena positions Adaptat Climate change adaptation 129 Share of government adaptation expenditure in relation to gross domestic product	2	1	0				2	7 Biodiversity information monitoring index
Adaptat Climate change adaptation 130 Number of units dedicated to climate change in government structures	3	1	2					4 Progress towards sustainable forest management
Adaptat Climate change adaptation 130 Nonnee of units dedicated to change in government structures	2	1	1	1				
Adaptat Climate change adaptation 132 Fisheries management measures in place and multilateral/bilateral fisheries management s	3	2	1	1				Proportion of agricultural area under productive and soustainable agriculture
Adopted Emission compared and the second sec	3	2	1	2				Buildings adapted to climate change
Adoptical Risk management, dispatch [13] Proportion in dia governmenti si tate doptical management dispatch in the doptical resolution and adoptical Risk management, dispatch [13] Coverage of dispatch shelters per capita	3	2	1	2		,		Proportion of degraded area of ecosystems that has been restored
Adaptat Risk management, disaster 135 Climate change funds received	3	- 3	0	3			3	Share of green urban areas in the total area of cities
Adaptat Risk management, disaster 136 Coverage of early warning systems	3	2	1	2		7	5	Proportion of important sites for terrestrial and freshwater biodiversity that are
Adoptat Risk management, disaster 137 Average increase of insurance premiums incurred due to climate change	3	2	1	2	1	7		Nature-based adaptation
Adaptat Public awareness of and edu 138 Proportion of population with access to climate information	3	2	1	2		7	, s	Adaptation at coastal zones or river basins
Adaptat Public awareness of and edu 139 Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a)	2	2	0	2) e	2	Number of reports on climate change statistics and indicators
Adaptat Public awareness of and edu 140 Number of companies publishing sustainability reports	2	2	0	1	1		3	Number of companies publishing sustainability reports
Adaptat Public awareness of and edu 141 Number of reports on climate change statistics and indicators	2	0	2	0	2	2 2	6	Extent to which (i) global citizenship education and (ii) education for sustainable
Adaptat Area-based adaptation to c 142 Adaptation at coastal zones or river basins	3	1	2	1	2	2 5	5 7	Proportion of population with access to climate information
Adaptat Area-based adaptation to c 143 Nature-based adaptation	3	0	3	1	2	2 4	. 8	Average increase of insurance premiums incurred due to climate change
Adaptat Area-based adaptation to c 144 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosy	3	2	1	1	2	2 E	5 G	Coverage of early warning systems
Adaptat Area-based adaptation to a 145 Share of green urban areas in the total area of cities	0	2	-2	2	-2	2 4	-4	4 Climate change funds received
Adaptat Area-based adaptation to c 146 Proportion of degraded area of ecosystems that has been restored	0	1	-1	1	-1	L 2	-2	2 Coverage of disaster shelters per capita
Adaptati Area-based adaptation to c 147 Buildings adapted to climate change	3	1	2	1	2	2 5	5 7	Proportion of local governments that adopt and implement local disaster risk
Adaptat Area-based adaptation to c 148 Proportion of agricultural area under productive and sustainable agriculture	0	2	-2	1	-1	L 3	-3	Fisheries management measures in place and multilateral/bilateral fisheries
Adaptati Area-based adaptation to c 149 Progress towards sustainable forest management	2	2	0	1	1	L S	5 3	National integrated costal zone management
Adaptati Climate change monitoring 150 Biodiversity information monitoring index	3	1	2	1	2	2 5	5 7	Number of units dedicated to dimate change in governments structures
Adaptati Climate change monitoring 151 Meteorological monitoring network	3	2	1	2	1	L 7	5	
Adaptat Climate change monitoring 152 Air quality monitoring systems	1	2	-1	2	-1	L 5	5 - <u>1</u>	hare of government adaptation expenditure in relation to gross domestic product
Adaptati Climate change monitoring 153 Water monitoring systems	2	2	0	2	C	<mark>)</mark> 6	5 2	2 Proportion of women in managerial positions
Adaptati Climate change monitoring 154 Ocean monitoring	3	2	1	2	1	1 7	5	S Proportion of sectors planning, budgeting and implementing dimate change
Adaptat Water management 155 Water use per capita	2	2	0	2	C	<mark>)</mark> е	2	6 -4 -2 0 2 4 6 8 .
Adaptati Waste management 156 Municipal waste collected per capita	2	2	0	2	C	e e	2	
Adaptat Waste management 157 Proportion of municipal waste treated	3	2	1	1	2	2 6	6 6	6 Evrent [E+G+I] Current [E+F+H]
Adaptat Waste management 158 Proportion of domestic and industrial wastewater flows safely treated	3	2	1	1	2	2 6	6 6	<u>A</u>



Countries engaged in the pilot exercise

Countries eng	aged in/ requested CISAT pilot testing	Fe Oc Re
Region (M49)	Country Name	As
Americas	Antigua and Barbuda	Eu
Europe	Belarus	An
Americas	Belize	Af
Africa	Burkina Faso	Af
Africa	Burundi	Af
Africa	Cameroon	, (1
Africa	Ghana	Int
Americas	Grenada	re
Americas	Peru	or
Americas	Saint Kitts and Nevis	
Americas	Saint Lucia	
Americas	Suriname	
Africa	Тодо	
Africa	Zimbabwe	

Feedback on CISA October)	T received from (as of 24
Region (M49)	Country Name
Asia	Bangladesh
Europe	Hungary
Americas	Antigua and Barbuda
Africa	Mauritius
Africa	United Republic of Tanzania
Africa	Zimbabwe
International/	GCCSTAT
regional	UNEP
organizations	PARIS21/OECD



Key questions:

- Can you advise on the transferability of work done between the Global Set and the related correspondences, e.g. FDES statistics; SDGs, Sendai Framework, CES indicators?
- Can you advise if experience with the implementation of the Global Set contributed to resource mobilisation in your country?
- Should CISAT be limited to self-evaluation or expand toward functionalities or algorithms for prioritisation of future statistical work, or should the latter be a separate tool to be developed in the future?

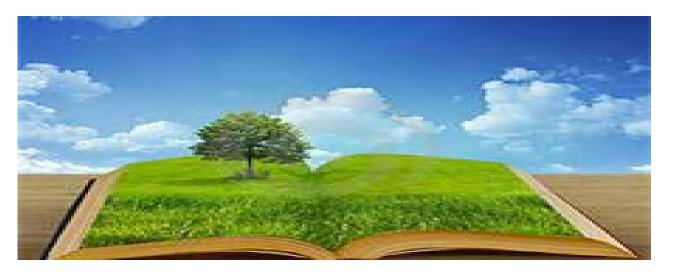


Thank you for your attention!

For more information please contact the Environment Statistics Section at the United Nations Statistics Division:

E-mail: <u>envstats@un.org</u>

Website: https://unstats.un.org/unsd/envstats/





United Nations Statistics Division

Group work



Group work questions

- Do you have suggestions to amend Part I CISAT (simplified or extended)?
- Should we keep the CISAT questions in the same order as in the ESSAT or change this order according to the structure in the Global Consultation, e.g. relevance, methodological soundness, data availability?
- How much the order of the questions matter, how useful is it to maintain the original ESSAT order?
- Should cell values be predefined (with a drop-down menu) as in the ESSAT, leave them open or explore different options?



Comments related to the structure:

- The "methodological soundness" block should be after the section on "Data/statistic/indicator availability". If the statistic is not computed by the national agencies of the country, we will not be able to assess its comparability with international guidelines and standards.
- Preferable to follow as close as possible the FDES ESSAT structure.
- Do not expand from self-assessment to decision support functionalities, the latter could be a separate tool.
- There is need for consistence on use of terminology reference/link as it refers to web link, survey data collection procedure and/or source institution. We may have link as a separate column.



Comments related to the cell values:

- Column T: Relevance of Statistic / Indicator at the National Level: <u>High /Medium</u> /Low/Not Relevant/Not Applicable (Our proposal is, that Relevant/Not <u>Relevant/Not Applicable may be enough</u>).
- 2. Column U: Priority for National Data Collection: <u>High /Medium /Low/Not a Priority</u> (Our proposal is, that Priority/Not Priority may be enough).
- 3. Relevance A short description or examples of how countries might determine whether an indicator or statistic relevance is high, medium or low can help the user when filling out the questionnaire and later on when interpreting the results. For example, "if an indicator/statistic is demanded for reporting on a global/regional agenda and for a national plan, policy or strategy countries might consider this a high priority". Those filling out the CISAT might not always have all the information needed, so any guidance the document can provide can help them answer or reach out to those who might know when relevance is high, medium or low.



Comments related to the typology of data types:

This follows the SDG descriptions of data type, it indicates whether the data was:

- produced by countries (C),
- country-adjusted data (CA),
- estimated data (E),
- global monitoring data (G),
- modelled data (M),
- nonrelevant (N) or
- not available (NA).

can you propose categories more suitable from a country perspective?

 produce by country" is too broad a category, while "estimated data" and "modelled data" can be also produced / made by country



Part 1: on institution with legal mandate

C1. Is there an institution with a legal mandate to produce or to coordinate climate change statistics?

• <u>Do we consider climate change statistics as an independent domain</u>?

It is very common for countries to consider climate change statistics as part of environment statistics. Because of this, the legal mandate to produce environment statistics can be equated (covered) with the mandate on climate change statistics. Maybe some clarifications could be useful.



Adapting the globally suggested indicators/statistics to national circumstances

 <u>Data / statistic / Indicator characteristics</u> – often, countries can have data similar to the one described in the metadata. For example, data for only one specific region instead of the whole country or a different definition of municipal waste collected due to lack of data. If that is the case, are countries encouraged to adjust the indicator's name to their own needs and the reality of data availability? If so, it would be helpful to include a short note on this in the instructions, by making this flexibility clearer might motivate and empower countries to nationalise the Global set

