

Complementary note to the compilation and mapping of indicators

Additional information provided in submissions

25 September 2024

I. Introduction and mandate

1. The Paris Agreement, in Article 7, paragraph 1, established the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2 of the Agreement.

2. CMA 5 decided to conclude the two-year Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation and adopt the United Arab Emirates Framework for Global Climate Resilience.¹ It also launched the two-year United Arab Emirates–Belém work programme on indicators for measuring progress achieved towards the targets referred to in paragraphs 9–10 of decision 2/CMA.5 with a view to identifying and, as needed, developing indicators and potential quantified elements for those targets.²

3. The Subsidiary Bodies (SBs) at their sixtieth session requested their Chairs to prepare, with the support of the secretariat, in collaboration with relevant United Nations organizations and specialized agencies, and with contributions from relevant constituted bodies, a compilation and mapping of existing indicators relevant to measuring progress towards the targets referred to in paragraphs 9–10 of decision 2/CMA.5, including information on areas potentially not covered by existing indicators.

4. SB 60 invited Parties and non-Party stakeholders, including relevant constituted bodies, United Nations organizations and specialized agencies, and other relevant organizations from all geographical regions, to submit via the submission portal by 31 July 2024 information on existing indicators for measuring progress towards the targets referred to in paragraphs 9–10 of decision 2/CMA.5 in use at the local, national, regional and global level, including, if available, information on associated methodologies and data readiness for such indicators, as well as identified gaps and areas for which the development of new indicators may be needed.

5. Indicators included in the submissions referred to in the paragraph above have been compiled by the secretariat into a large dataset, and this document should be read in conjunction with that dataset. This document has been prepared to provide an overview of the methodology and to capture some additional information that could not have been presented in a Microsoft Excel table format in order to ensure comprehensiveness and transparency.

II. Overview

6. As of 12 September, a total of 62 submissions were received, 20 from Parties and groups of Parties, 18 from UN Organizations, and 24 from Intergovernmental and non-governmental organizations.

7. The following Parties made submissions: Kenya on behalf of the African Group of Negotiators, Samoa, on behalf of the Alliance of Small Island States, Saudi Arabia on behalf of the Arab group, Peru on behalf of the Independent Alliance of Latin America and the Caribbean, Malawi on behalf of Least Developed Countries, the European Union, Bhutan,

¹ Decision 2/CMA.5, paras. 5–6.

² Decision 2/CMA.5, para. 39.

Canada, Japan, Mauritius, Pakistan, Panama, Philippines, Russia, United Kingdom and United States.

8. The following UN organizations made submissions: Convention on Biological Diversity (2 submissions); Global Climate Observing System; Intergovernmental Oceanographic Commission of UNESCO; Food and Agriculture Organization; Green Climate Fund; International Labour Organization; Sanitation and Water for All; United Nations Capital Development Fund; United Nations Children's Fund; United Nations Department of Economic and Social Affairs; United Nations Economic Commission for Europe; United Nations Environment Programme; United Nations Foundation (UNF) on behalf of The United Nations Office for the Coordination of Humanitarian Affairs (OCHA), United Nations Educational, Scientific and Cultural Organization (UNESCO), the Office of the United Nations High Commissioner for Human Rights (OHCHR), and the UN Foundation (2 submissions), United Nations Office for Disaster Risk Reduction; World Health Organization; and World Meteorological Organization.

9. The following non-governmental organizations and non-admitted entities made submissions: Alliance for Food Sovereignty in Africa; Climate Action Network International; Care About Climate (CAC) on behalf of Children and Youth Constituency of the UNFCCC; Conectas Human Rights on behalf of Geledés – Black Woman Institute in Brazil, Conectas Human Rights, ISER - Institute of Studies on Religion, Network for Antiracist Adaptation, Alana Institute, and Voices for Climate Network; Council on Energy, Environment and Water; Drugs for Neglected Diseases Initiative; Global Climate and Health Alliance, on behalf of Global Climate and Health Alliance, Wellcome Trust, Lancet Countdown on Health and Climate Change, United for Global Mental Health, Drugs for Neglected Diseases Initiative, Climate Cares Centre (Imperial College London) and The Rockefeller Foundation; Humane Society International (HSI) on behalf of Africa Centre for Sustainable and Inclusive Development, Aquatic Life Institute, Brighter Green, CGIAR Research Initiative on Livestock and Climate, Global Alliance for Improved Nutrition (GAIN), Global Crop Diversity Trust (Crop Trust), Global Youth Coalition, Humane Society International, International Association of Students in Agricultural and Related Sciences (IAAS), International Livestock Research Institute, Mercy For Animals, Plant Based Treaty, ProVeg International, Real Food Systems Youth Network; International Council on Monuments and Sites (ICOMOS) on behalf of Heritage Adapts to Climate Alliance (HACA) by Preserving Legacies for the Climate Heritage Network; International Institute for Sustainable Development; International Platform on Adaptation Metrics; London School of Economics; Risk-informed Early Action Partnership; SouthSouthNorth Projects Africa on behalf of Race to Resilience and The Sharm el-Sheikh Adaptation Agenda; The Nature Conservancy; University of Saskatchewan on behalf of Monitoring and Evaluating Climate Communication and Education (MECCE) Project; Woodwell Climate Research Center; World Business Council for Sustainable Development;

10. Within the submissions, a very wide range of information was included. Regarding indicators themselves, there were indicators from global, regional, national and sub-national levels, some of which had in-depth metadata and information about their existing use, whereas others simply included the indicator with no additional data. The majority of indicators submitted are existing and are being used within international frameworks or as part of national level tools, however some proposals for new indicators were also submitted. Finally, a breadth of additional information beyond specific indicators was submitted by Parties, UN organizations and NGOs, such as information relating to the process of assessing adaptation, specific sectoral considerations or suggestions for this work moving forward.

11. The mandate from SB 60, as outlined in paragraph 3 above refers to a compilation and mapping. It is understood that a compilation refers to a gathering of the submitted indicators, and the mapping refers to aligning them with the specific target area for which they could be used to measure progress. The target areas within the UAE Framework for global climate resilience are seven thematic targets, namely around water, food, health, ecosystems, infrastructure, poverty and livelihoods, and cultural heritage, as well as four dimensional

targets on impact and vulnerability assessment, planning, implementation and monitoring, evaluation and learning for adaptation.

12. SB 60 requested the SB Chairs to convene experts to assist in the technical work under the United Arab Emirates–Belém work programme, including reviewing and refining the compilation and mapping of existing indicators referred to in paragraph 4 above and, as needed, developing new indicators for measuring progress achieved towards the targets referred to in paragraphs 9–10 of decision 2/CMA.5. The SB 60 requested the secretariat to publish the refined mapping of indicators as part of a report on the workshop referred to in paragraph 22 above prior to CMA 6.

III. Methodology

A. Format

13. Nearly all submissions made clear which target a specific indicator was for, and therefore this was reflected within the dataset. Additionally, many submissions used a template that is based on the paragraph 12 of the SB 60 conclusions, and this became the basis for the columns of the datasheet. This included information on:

- (a) The relevance of the indicators to measuring progress towards one or more of the targets referred to in paragraphs 9–10 of decision 2/CMA.5;
- (b) The specific relevance of the indicators to adaptation, including enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change;
- (c) Whether quantitative and/or qualitative information applies to the indicators;
- (d) Data availability for the indicators;
- (e) The ability of the indicators to reflect regional, national and local circumstances;
- (f) The applicability of the indicators across different contexts;
- (g) The ease of interpretation of the indicators;
- (h) The clarity of methodologies associated with the indicators;
- (i) The ability of the indicators to be aggregated across levels and disaggregated by demographic and socioeconomic characteristics, such as vulnerability, gender, age, disability, race, socioeconomic status, and status as Indigenous Peoples, as appropriate and depending on national circumstances;
- (j) The indicators' basis on the best available science;
- (k) The indicators' basis on traditional knowledge, Indigenous Peoples' knowledge and local knowledge systems;
- (l) That the indicators should not be used as a basis for comparison between Parties

14. Not all submissions provided all of this information, with others submitting information that does not fit neatly into these areas. Therefore, a number of additional columns in the datasheet were added to reflect where submissions providing additional information. Similarly, there were cases where the information submitted may not have been under headings identical to (a) to (l) above, however in examples where it was clear as to what it was referring (e.g. there was slightly different wording), it was added to the relevant column. If it was not clear, to avoid inferences by the secretariat, the information was captured in additional columns, for expert consideration.

15. In cases where limited or no metadata was submitted, columns (a) to (l) above were left blank.

B. Challenges in ensuring consistency and coherence

16. Information in the submissions was received in a variety of formats (see b. Format). To ensure consistency in the compilation of indicators, carried out by three reviewers, information was recorded ‘as submitted’ as far as possible, including any gaps in metadata and spellings.

17. Where indicators were not mapped to specific targets, these were only mapped by the reviewing team where their association was certain (e.g. containing key words such as “agriculture”). Otherwise, these were recorded as ‘Indicator not assigned’, for experts review and consideration.

18. Even where information was submitted according to the paragraph 12 of the SB 60, the volume of data being compiled (with the largest single submission exceeding 1300 indicators) furthers the risk of human error. Efforts were taken to mitigate this (checking total number of indicators against the number in submission, checking metadata of first and last rows and spot checking those in the middle to ensure no rows had been skipped when pasting the data into the datasheet).

19. To compile such a large volume of information in a coherent way, and to allow the extraction of insights from the data, the datasheet was produced in Excel. In some cases, for example ‘Level’ (Column X) it was possible to standardise the data to facilitate filtering and analysis. However, in other cases such as ‘Gaps’ (Column V) or ‘The ability of the indicators to be disaggregated by demographic and socioeconomic characteristics’ (Column AC), a large amount of qualitative data is recorded and the potential for filtering is currently limited.

20. Finally, in some cases it was unclear whether the indicators in a submission were existing indicators or new suggestions. These have been included in the compilation, with a note that there is some uncertainty.

IV. Statistics

21. A total of 5304 indicators were received via the submissions. 4907 of these were existing indicators (found within existing frameworks, reports, national adaptation plans), 340 were new indicators suggested for consideration, and 57 were of unclear origin.

22. A mapping of submitted indicators to each target is available in Fig. 1. Of the total indicators, 2115 were mapped to more than 1 target, while the remaining 3189 were target-specific.

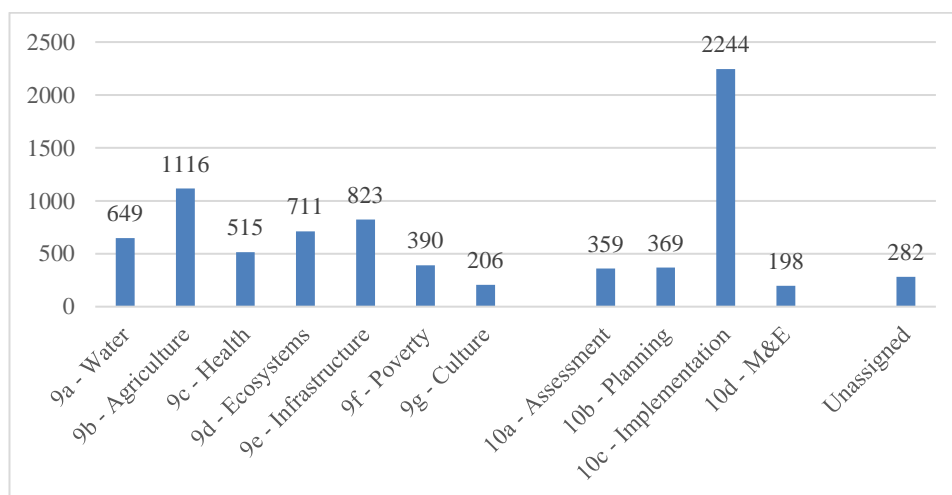


Fig. 1. Number of indicators mapped to each target.

23. Comments on an associated methodology are available for 880 indicators, however these vary in detail from a simple unit or high-level calculation to a detailed formula or data collection methods.

24. 1044 indicators indicated a reporting level (Fig. 2). Of these, the most common are national indicators (466), followed by multi-level (387).

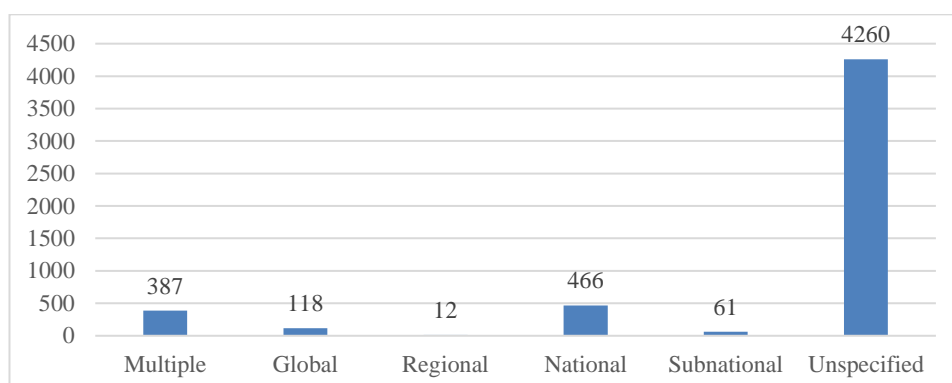


Fig. 2. Number of indicators for each reporting level.

25. Where it was reported, data readiness is moderate or higher³ for 125 of the indicators and low⁴ for 589.

V. Gaps

26. Submitters were also invited to provide information on identified gaps and areas for which the development of new indicators may be needed.

27. In reporting gaps, some submissions reported those relating to submitted indicators or groups of indicators. These are detailed in [Sheet Indicators, Column V](#). While some of these are highly specific to an individual indicator's context, commonly reported gaps include data limitations (such as data availability, accuracy, and geographical coverage, or an inability to disaggregate data) and methodological limitations (such as incomplete definitions or classifications). Submissions also noted the need for improved spatial resolution and data integration with climate projections and other relevant datasets. Gaps relating to dimensional targets included indicators on institutional arrangements, planning processes, inclusiveness, participation, and effectiveness.

28. Other submissions detailed more general gaps ([Sheet Gaps](#)). Some of these relate to the existing indicator landscape, such as imbalances in indicators measuring inputs, outputs, and outcomes. Gaps in the measurement of inputs relative to outputs, outputs relative to outcomes, or in outcomes relative to inputs in the case of disaster risk management were reported. Other gaps relate to the inclusion of future climate projections and climate change issues in relevant development indicators. Some submissions commented on a general lack of theoretical foundations or defined methodologies in adaptation indicators

29. Other general gaps ([Sheet Gaps](#)) relate to the process of measuring adaptation or defining indicators. Several submissions identified engagement with indigenous peoples and local communities, consideration of indigenous and traditional knowledge and cultural heritage as gaps. Data-related gaps include data quality, availability, and readiness specifically for adaptation, even where statistical systems are developed; the need for internationally or cross-sectorally comparable data; biases or disparities in geographical or other coverage of existing data; the need for indicators which can accommodate data from multiple sources; and the need to understand context-specific data needs. Institutional gaps include the need to strengthen statistical capacity and for institutional arrangements to

³ Including Available, Comprehensive, Good, High, Medium, Moderate, Substantial, Tier 1, Tier 2, Very good, and other qualitative responses indicating moderate or higher data readiness.

⁴ Including Insufficient, Low, Limited, No, Not collected, Not yet, Poor, Tier 3, Unclear, Unknown, and other qualitative responses indicating low data readiness.

support coordination and collaboration, including between different theoretical communities and between national statistics offices and other organizations, and especially in developing countries. Finally, methodological work is required to support (dis)aggregation of indicators across levels or by demographic characteristics.

30. Both specific and general gaps (Sheet Indicators, Column V, and Sheet Gaps) reveal new areas for the development of indicators. Submissions offer insights into emerging areas needing indicator development, such as nature-based solutions in adaptation strategies, the effectiveness of adaptation finance, climate education tracking, public awareness initiatives, and transboundary cooperation on climate-related risks. There is also a focus on indicators to capture impacts on vulnerable populations, integration of climate change across sectors, and human mobility and displacement due to climate change.

31. Further areas for indicator development have been suggested, including indicators specific to regions like mountain and desert areas. For instance, indicators for mountain regions (e.g., glacial melt, biodiversity) and desert regions (e.g., desertification, water scarcity) were highlighted as lacking. Additionally, submissions identified gaps in sub-components like child nutrition and child poverty, health and educational infrastructure, and human mobility. Gaps in Means of Implementation indicators were noted, alongside a need for the development of indicators tracking adaptation finance, capacity building, and technology transfer.

32. Across both specific and general gaps (Sheet Indicators, Column V and Sheet Gaps), submitters identified new areas for the development of indicators. For example, one submission highlighted indicators specific to mountain regions, with others including indicators specific to desert regions. Some submissions identified thematic gaps in indicator sub-components or in groups of indicators, including child nutrition and child poverty, health and educational infrastructure, and human mobility. Some also identified gaps in Means of Implementation indicators.

VI. Additional information from submissions

33. Throughout submissions, many other considerations were raised which may be relevant to this work. Below, some themes are outlined that were common across submissions, however with so many inputs being received, not all could be captured here. All submissions are available on the UNFCCC submission portal.⁵

34. It was highlighted that despite this process to identify and develop new indicators as needed, there are still many challenges when it comes to measuring adaptation and assessing vulnerability. Firstly, there is the innate complexity of measuring whether an area is 'adapted' given the range of hazards faced, as well the issue of aggregation between levels.

35. Several submissions suggested measuring levels of means of implementation should be part of the outcome of this indicators process given that in order to achieve the targets of the UAE Framework, increases in MoI are required. However, it was also highlighted by some that they do not believe these should be included, as the work programme is to measure targets specifically as outlined in paragraphs 9-10 of 2/CMA.5. Others noted the sensitivities around this issue and proposed it be considered in a similar way as it is under the Sendai Framework.

36. Several submissions included details and guidance for the process of developing indicators. This included suggestions of key questions to be e.g. what is the purpose of such indicator, and the importance of considering the feasibility of reporting during the indicator

⁵ [UNFCCC Submission Portal](#), please search 'global goal on adaptation'

design process. It was also suggested to involve national statistical offices in this task. Further suggestions are made within the submissions.⁶

37. Many suggested indicators in submissions were those under existing international frameworks, most notably the SDGs, Sendai Framework and Kunming-Montreal Biodiversity Framework. It was highlighted that should such indicators be utilized for the UAE Framework targets, ensuring synergies and efficient alignment would be key to effective reporting and avoiding additional burdens.

38. Finally, one submission noted some key considerations for the dimensional targets, based on the mandate from paragraph 10 of decision 2/CMA.5. Specially, how to capture country-drivenness, how to capture gender-responsiveness, how to capture participatory and fully transparent, what is considered as “appropriate”, what is considered mainstreamed and how will consideration of people and vulnerable communities be captured?

39. Additionally, other submissions highlighted the importance of climate education, and to ensure youth and gender perspectives are included in this work.

⁶ [UNFCCC Submission Portal](#) please search ‘global goal on adaptation’