



UAE Framework for Global Climate Resilience: key outcomes of COP28 and pathways towards COP29 and COP30

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1. Introduction

With the completion of the two-year Glasgow-Sharm el-Sheik work programme³ providing the space to share views and proposals⁴ to operationalize the Global Goal on Adaptation (GGA) in the Paris Agreement, at the United Framework Convention on Climate Change (UNFCCC) COP28⁵, the Parties reached consensus on a Decision, which launched the **UAE Framework for Global Climate Resilience**.

This report aims to analyze the key outcomes of Dubai in relation to the GGA (sections 2, 3, and 4), provide insights about the continuation of the work concerning the new mandates for the UNFCCC bodies, including the modalities of the two-year work programme for developing indicators from UAE to Belém (section 5), as well as to explore examples of indicators based on existing work under other international agendas (section 6) and main challenges and opportunities during 2024 and 2025 negotiations (section 7).

At the same time, we seek to encourage debate in the adaptation community, in order to foster participatory practices in addressing and determining the indicators that are key to achieving — at least — one of the functions in the purpose of the framework, on reviewing the progress.

2. Exploring the Decision on the GGA and its operationalization

After years of inaction on what the Adaptation Committee (2021)⁶ identified in its technical report as challenges and *tradeoffs* for assessing collective progress towards the global goal, COP28 adopted the UAE Framework for Global Climate Resilience (Figure 1), whose **purpose is** to achieve the goal, review its progress in reducing climate impacts, risks, and vulnerabilities, and enhance action and support for adaptation. This purpose is also aligned with the Decision adopted one year before in Sharm el-Sheikh (Decision 3/CMA.4, paragraph 9).

The purpose clarifies the role that the framework would perform, including a forward-looking function related to achieving the enhancement of adaptive capacity, the strengthening of resilience, and the reducing of vulnerability, and a backward-looking function in dialogue with the Global Stocktake (GST). The Paris Agreement affirms the GST refers to reviewing the progress made in achieving the goal (art. 7.14.d.) This is recognized in the COP28 Decision on the GGA, not only in the purpose but also in the request to the Subsidiary Body for Implementation (SBI) and the Subsidiary Body


3 For further information, authors recommend accessing: <<https://arg1punto5.com/wp-content/uploads/2023/09/Setting-up-a-framework-for-the-GGA.pdf>>.

4 For further information, authors recommend accessing: <<https://arg1punto5.com/wp-content/uploads/2023/11/Report-2.-Setting-up-a-framework-for-the-GGA-1-1.pdf>>.

5 For further information, authors recommend accessing: <<https://arg1punto5.com/wp-content/uploads/2023/11/Proposal-of-decision-text-GGA-Framework-ARG1.5.pdf>>.

6 Available online at <https://unfccc.int/sites/default/files/resource/AC_TP_GlobalGoalOnAdaptation.pdf>.





for Scientific and Technological Advice (SBSTA), to consider how the Framework can facilitate the analysis of information for assessing progress and identifying inputs.

As a result of the negotiating process, in which some Parties were interested in having overarching targets, while others suggested political messages, signals, sentences, and adaptation global priorities, the Decision text (paragraph 8) included that the Framework should be guided by **objectives**, such as:

- a. long-term transformational and incremental adaptation,
- b. the collective well-being of all people, the protection of livelihoods and economies, and the preservation and regeneration of nature, for current and future generations,
- c. the inclusion of different adaptation approaches,
- d. the best available science,
- e. the worldviews and values of Indigenous Peoples.

Dubai's Decision also adopted **principles and cross-cutting considerations** as part of the UAE Framework. As Beauchamp (2024) highlights, the Decision does not provide any explicit specification on how to take the cross-cutting considerations into account, and only "where possible", which may dilute their weight. Taking into account the open process under the SBs for consideration of matters relating to the GGA (Decision 2/CMA.5, paragraph 38) and the two-year work programme on indicators (Decision 2/CMA.5, paragraph 39), it is worth asking whether the Parties would limit the development of indicators to the targets or seek to include principles and cross-cutting considerations, set out in paragraphs 11, 13, and 14, as part of the operationalization.

Since one of the main arguments for establishing a framework was the need to have a political and methodological tool to monitor and evaluate the progress of the GGA, both the dimensional and sectoral **targets** are key elements for achieving the goal and reviewing its progress.

Four-dimensional targets (Figure 2) were established **based on the stages of the iterative adaptation cycle (IAC)**, with a 2030 timeline, except for early warning systems, whose target by 2027 is aligned with the UN Secretary-General's early warning systems initiative.



Figure 1. UAE Framework for Global Climate Resilience

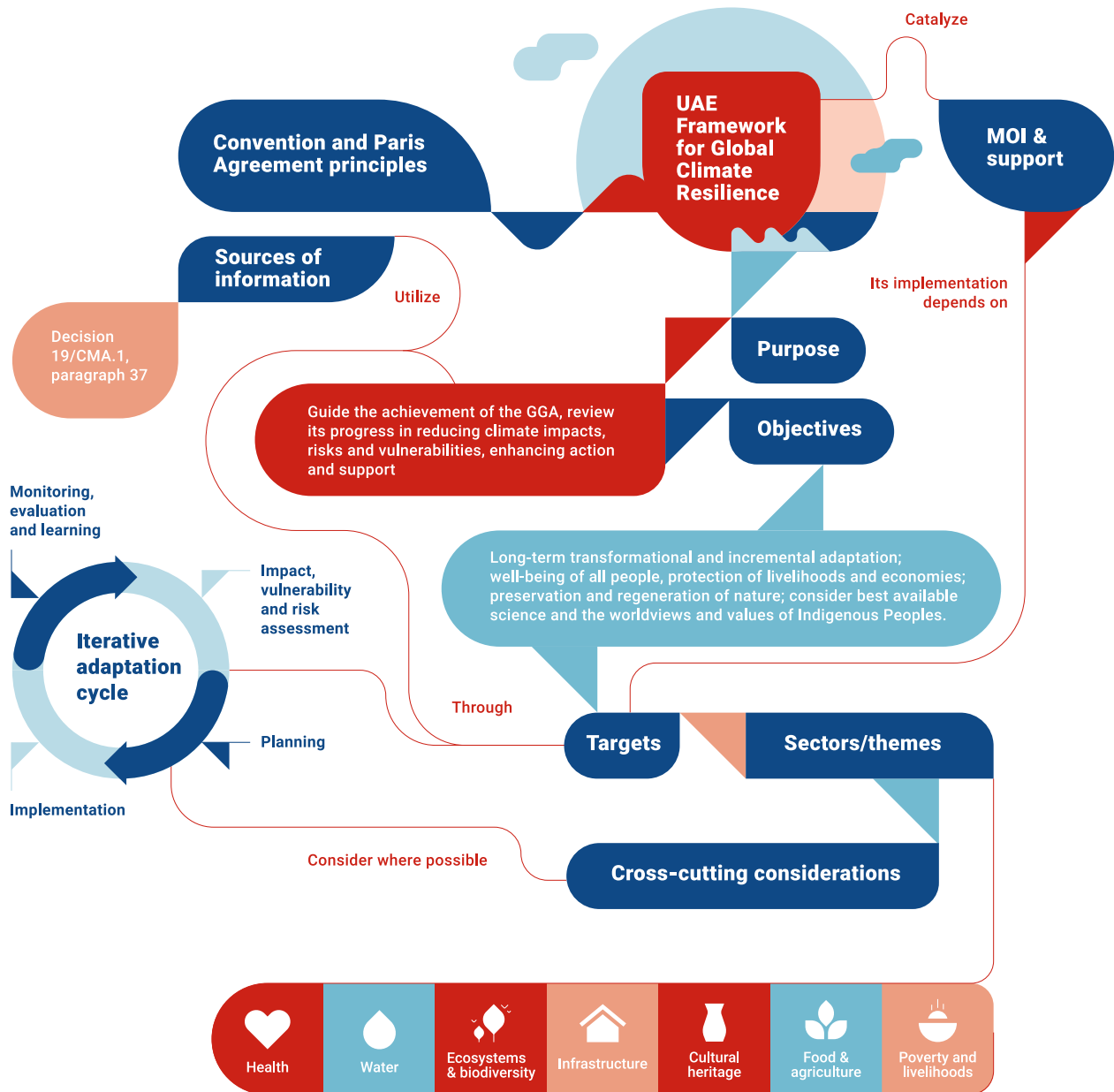


Figure 2. Iterative adaptation cycle targets



On the other hand, the second part of the first-dimensional target will rely on the advances of the UN initiative on EWS: the “Global Status of Multi-Hazard Early Warning Systems 2023”⁷. A dashboard⁸ including indicators to capture the global impact of the initiative has been put in place. This platform also displays the aggregated regional results. This design could be interesting to visualize the progress of all the components of the framework.

The second-dimensional target not only refers to the **elaboration of planning instruments** by the Parties, but it also contains valuable mentions of gender-responsiveness⁹, participatory, and transparent approaches that deserve to be highlighted. These are also relevant when developing the tools to monitor progress, as well as to consider the intersections with the cross-cutting considerations.

7 Available online at <<https://www.undrr.org/media/91954/download?startDownload=true>>

8 Available online at <<https://wmo.int/activities/monitoring-and-evaluation-merp/early-warnings-all-dashboard>>

9 The Toolkit for a Gender-Responsive Process to Formulate and Implement National Adaptation Plans (NAPs) is available online at <<https://napglobalnetwork.org/wp-content/uploads/2021/05/napgn-en-2019-toolkit-for-a-gender-responsive-process-to-formulate-and-implement-naps.pdf>>





This target incorporates two further aspects into planning: (1) the coverage of people, vulnerable communities, sectors, and ecosystems; and (2) the mainstreaming process.

The third **target on implementation** was one of the most debated, particularly considering gaps when thinking about the multi-scalarity of adaptation. Additionally, it largely involved the crossover between action and support, which is always contentious in the UNFCCC. Some negotiation proposals referenced the methodologies for assessing implementation outlined in the Adaptation Gap Report (UNEP, 2023), particularly in relation to funding. However, the final language reflects a lighter version focused on the progress on implementing, which could lead to a national self-assessment rather than an external evaluation.

As for the second component of the target, it can be challenging and also require self-assessment regarding how implementation enables the reduction of impacts of key hazards.

The last IAC target on **monitoring, evaluation, and learning** includes a reference to the adaptation efforts, which in the case of developing countries shall be recognized in light of the PA (art. 7.3), particularly during the Global Stocktake (art 7.14.a). However, even with the process established in Decision 11/CMA.1, this was one of the missing pieces of the GST Decision in Dubai. Despite the shortcomings of this first cycle, several adaptation-related documents, such as adaptation communications and biennial transparency reports, include an invitation to provide information on adaptation efforts for recognition, which are key sources of the GST and the UAE Framework. In addition, the target alludes to the importance of building institutional capacities to carry out the different stages of a MEL system.

When operationalizing this last IAC target, it would be important to consider the different starting points of the countries on Monitoring and Evaluation (M&E) and Monitoring, Evaluation, and Learning (MEL). During the conversations in the context of the Glasgow-Sharm el-Sheik Work Programme, several proposals sought to provide the flexibility needed (Bueno et. al, 2023c), capturing the complexity of the issue, while leaving the door open to accommodate different national circumstances.

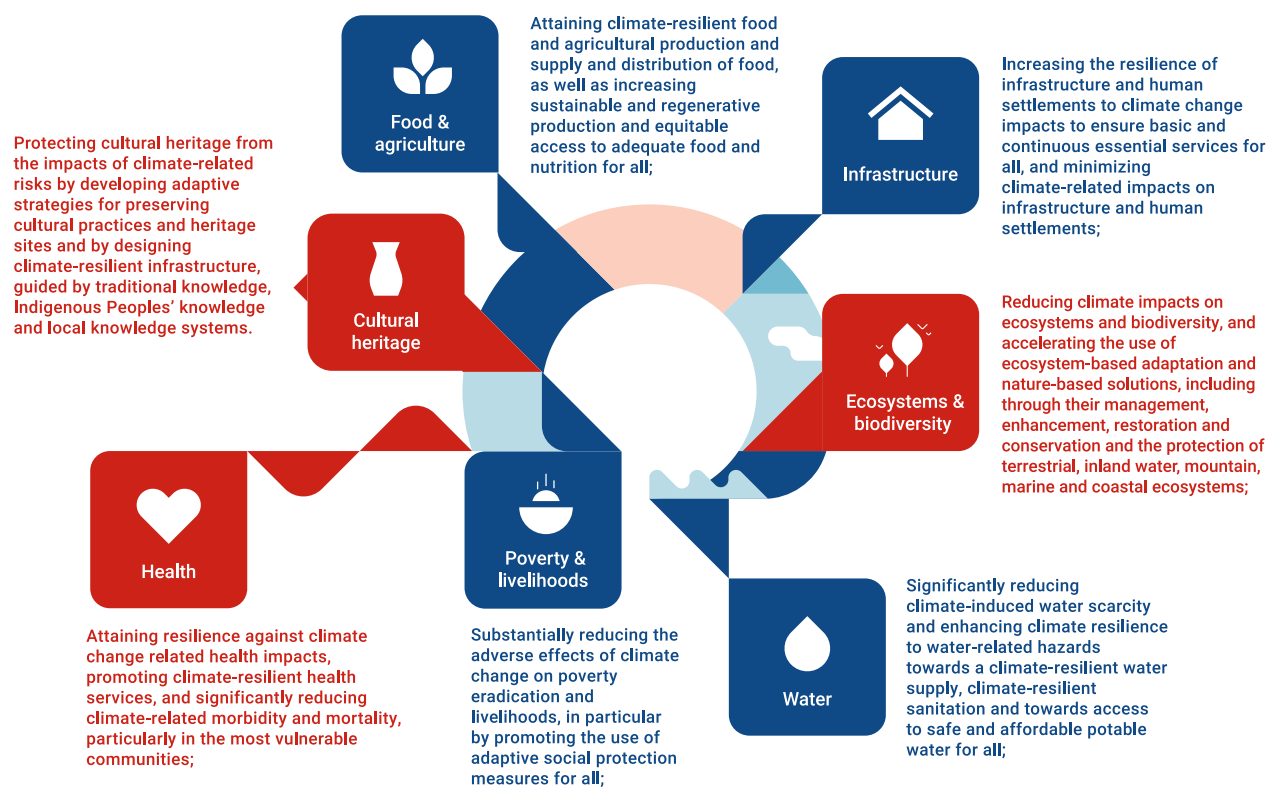
Even though paragraph 10 recognizes the need to enhance adaptation action and support, developing countries did not succeed in including support features in the IAC targets. However, the development of indicators is a new opportunity to consider how the support provision determines the progress of adaptation action in developing countries, through the 4 stages of the IAC, as well as applied to thematic and sectoral targets.

In COP28 **seven thematic and sectoral targets were established**, focused on: water; food and agriculture; health; ecosystems and biodiversity; infrastructure; poverty eradication; and cultural heritage (Figure 3).




According to the Decision 2/CMA.5, to increase ambition and enhance adaptation action and support, it is important to **align the work with other global frameworks** for achieving, in particular, thematic targets. Given that there are other matrices of targets and indicators under the SDGs and Sendai Framework, it is important to assess whether the indicators and metrics available are adequate according to the GGA targets -climate change adaptation context-, with the aim of tracking progress. A specific analysis of opportunities to create synergies with other international initiatives and frameworks, and methodological challenges by each target, is needed. For example, indicators for monitoring the goals and targets of the Kunming-Montreal Global Biodiversity Framework will be finished by 2025 (CBD, 2022).

Figure 3. Thematic targets



The Decision also identifies the **sources of information** that should be utilized to gather the necessary information for monitoring the progress of the UAE Framework for Global Climate Resilience. The sources are aligned with the ones identified one year before in paragraph 37 of Decision 19/CMA.1 of Sharm el-Sheikh. Doing this reinforces the linkages with the GST process and the need to rely on current communication and reporting systems, which avoids creating additional burdens. Therefore, the invitation to the Parties includes the provision of qualitative and/or quantitative information related to the targets and the cross-cutting considerations into adaptation communications, biennial transparency





reports, national adaptation plans, national communications, and nationally determined contributions.

Dubai's Decision also recognizes that **climate impacts may be transboundary** and involve **complex and cascading risks** that interact and make it more difficult to manage (IPCC AR6, 2023). Thus, knowledge-sharing, and international cooperation are key to achieving solutions, since individual countries' adaptation choices may also exacerbate risks in other places (Davis et al, 2023, p 2¹⁰).

3. Weighing the means of implementation package of Dubai's Decision

The COP28 decision on the GGA contains 14 paragraphs directly related to financial resources without any explicit commitment either to supporting countries in order for them to implement the framework or to achieving the targets. Instead, there is an acknowledgement of the importance of these financial resources for the implementation of the UAE Framework as well as the recognition of several **well-known adaptation finance gaps**, such as:

- timeliness and predictability of adaptation finance;
- direct and simplified access procedures;
- sufficient climate finance;
- concessional and grant-based funding considering limited fiscal space;
- provision of scaled-up financial resources in balance between adaptation and mitigation;
- provision of support to developing country Parties under Articles 9, 10, and 11 of the Paris Agreement;
- widening adaptation finance gap;
- commitment of developed country Parties to at least double their collective provision of climate finance for adaptation to developing country Parties, with reference to 2019 levels, by the year 2025.

The UAE Framework missed the opportunity to provide solutions to the adaptation financial gap documented by the annual Adaptation Gap Report of UNEP, as well as by OECD (2023) and the Standing Committee on Finance of the UNFCCC (2023d)¹¹. This wasted opportunity leaves no strong incentives for developing countries to implement and report, all with their own resources and increasing costs. However, the decision text affirms that: 1. “The extent to which the Framework is implemented by developing countries Parties depends on, inter alia, [...] the effective implementation by developed countries Parties of means of implementation and support commitments”; 2. “The

10 This paper identifies entry points for integrating transboundary climate risks in the GGA framework. Available at <https://adaptationwithoutborders.org/knowledge-base/adaptation-without-borders/entry-points-for-integrating-transboundary-climate-risks-in-the-global-goal-on-adaptation/>

11 Available at <https://unfccc.int/sites/default/files/resource/231120%20BLS23393%20UCC%20Adaptation%20Finance%20v04.pdf?download>





implementation of the framework, including achieving its targets, requires urgent, continuous, and enhanced international support, provided and mobilized to developing countries Parties”.

Thus, it is essential to generate positive incentives for all parties to seize the opportunity to implement and report on the UAE Framework, bearing in mind that adaptation is a substantive component of long-term climate architecture.

There is also a call to the **Green Climate Fund Board and the Adaptation Fund Board** to provide information in terms on how the funds are supporting developing countries in implementing the framework and achieving the targets specifically. In this regard, the GCF should consider updating its readiness programme to include the framework and make the monitoring indicators compatible¹².

The **Standing Committee on Finance** was also invited to consider the UAE framework in its workplan¹³. Even with this invitation by the CMA, there are precedents in which the Committee, without openly rejecting the invitation, did not prioritize the issue. In this sense, it is important to monitor its inclusion at the first annual meeting of the SCF with clear activities and timelines¹⁴. This invitation is also critical for building synergies in the context of the negotiations of the **New Collective Quantifiable Goal on Climate Finance (NCQG)** towards COP29, as well as for a better articulation of work between finance and adaptation rooms in the UNFCCC negotiations. This is also recognized by encouraging parties to consider the outcomes of GST and GGA in COP28 in the negotiations of the NCQG (paragraph 37).

Additionally, Dubai’s decision refers to factors such as leadership, institutional arrangements, policies, data and knowledge, skills and education, public participation, and strengthened and inclusive governance, recognized as crucial to enable the implementation of adaptation action. There are also specific references to broadening climate education and empowering people. However, since these factors are not part of the framework but of the decision, they will be relevant as part of the national implementation and reporting process.

4. Implications of the new mandates

In addition to the compromise solution of setting targets for the IAC, as well as for the themes, in exchange for a weak means of implementation section, there were other elements of the political package to balance. These include the mandates given to the UNFCCC bodies to advance work, as well as to the secretariat to synthesize information and produce reports.

The UAE Framework Decision complements the previous mandate given to the UNFCCC

¹² Available at <https://www.greenclimate.fund/readiness/naps>

¹³ See the annual SCF report to the CMA 4 including the workplan in Annex II https://unfccc.int/sites/default/files/resource/cp2023_02_cma2023_08_adv.pdf?download

¹⁴ At the time of writing this document, the first annual meeting of the SCF has not yet taken place.





secretariat¹⁵ in terms of preparing a **synthesis report on the state of adaptation efforts, experience, and priorities**, as part of the information collection and preparation stage of the GST (Decision 19/CMA.1, paragraph 23 b.). In Dubai, the secretariat was requested to **include in the synthesis report information on the targets**, considering the next and subsequent GST processes.

The Decision also requested the secretariat to undertake **work** to examine how **transformational adaptation** is defined and understood at different spatial scales and sectors, and how to assess progress in planning and implementing this/these approaches. Even though there is no common understanding, nor common definition, of what transformational adaptation is (Adaptation Committee, 2019¹⁶), system-wide change or changes across more than one system is one characteristic of this approach¹⁷, and it requires coordinated action guided by “System Transitions” thinking¹⁸. This request does not have any specific format: It could be in the form of a specific report, event, or part of any other report. However, in all cases, it should be delivered by COP29. It is also expected that transformational adaptation will be part of the two-year work programme deliberations.

During the two years of the Glasgow-Sharm el-Sheikh work programme there were different views on the role of UNFCCC bodies. While some countries argued that all further work should rest in these bodies, other groups and countries had proposals within and outside the UNFCCC to create other working spaces (Bueno et. al, 2023c). Finally, a mixed proposal was reached at COP28, which incorporates a new two-year work programme, but, at the same time, assigns important tasks to the bodies for the framework to fulfill its purpose.

The Adaptation Committee (AC), the Consultative Group of Experts (CGE), and the Least Developed Countries Expert Group (LEG) are invited to prepare **technical guidance and training materials to support the implementation of the framework**. Given the experience of the draft supplementary guidance for voluntary use by the Parties on Adaptation Communications, and how political discussions on the role of the IPCC have blocked its final publication, it is important that the bodies can not only carry forward the technical task but also consider the political nuances of their very important work, especially since this work is necessary to support developing countries in the process of incorporating the framework into their documents to the Convention and implementing its provisions. However, the mandate has at least two weaknesses: it is not time-bound and does not specify in detail the request for materials and guidance.

In the same spirit, the CMA invited the AC, the CGE, and the LEG to develop **recommendations on reporting on adaptation action and progress**, which are also supposed **to inform the review and update of the modalities, procedures, and**

15 Available at https://unfccc.int/sites/default/files/resource/CMA2018_03a02E.pdf

16 Available at <https://unfccc.int/sites/default/files/resource/variousapproaches%20.pdf>

17 Available at <https://www.ukcip.org.uk/wp-content/PDFs/UKCIP-transformational-adaptation-final.pdf>

18 Available at https://unfccc.int/sites/default/files/resource/FINAL_IPCCContribution_GGA_5thWorkshop_IPCC.pdf

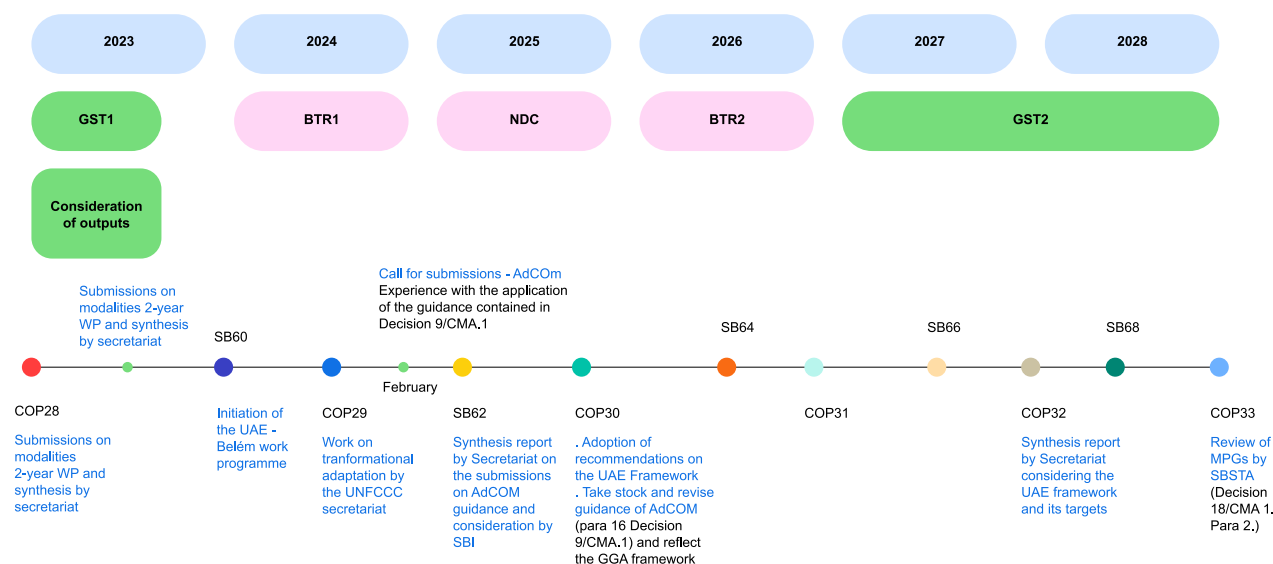


guidelines for the transparency framework (MPGs), and the review of the training course on the adaptation chapter of the BTRs. Also, this mandate does not have an assigned deadline, and when it mentions the review of the course and the review of the MPGs, it refers to 2028.

LEG is also entrusted with the request of **updating the technical guidance of NAPs**, including the UAE Framework and the IPCC AR6 findings.

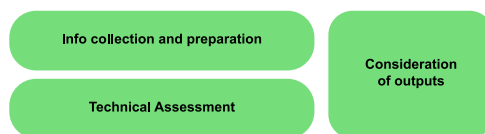
The timeline in Figure 4 seeks to contextualize the discussions in light of the multiple intersecting adaptation mandates.

Figure 4. Timeline of adaptation related mandates in the UNFCCC context



Implementation of the UAE Framework by Parties and stakeholders


- AC - LEG - CGE: Technical guidance and training materials on the UAE Framework
- AC - LEG_CGE: Recommendations on reporting on adaptation action and progress (GGA in BTRs)
- LEG update NAP technical guidance



5. Modalities and procedures for the UAE-Belém work programme

In UAE, the Parties decided to launch a **two-year UAE-Belém work programme on indicators**, as a way of reviewing the progress in achieving the GGA, by using the targets of the Framework and defining indicators and other quantified elements. As the GlASS did, the work programme will likewise be carried out by the UNFCCC subsidiary bodies starting after COP28/CMA5. The decision opened the door for the SBs to also take into account ongoing processes under relevant agenda items and workstream when preparing the recommendations for consideration and adoption by the COP30 in Brazil





(November, 2025). This aspect is important since it could create interlinkages with the **NCQG process**, in order to support and align the inclusion of a separate sub-goal for adaptation, aligned with needs, guaranteeing access and balance.

Parties and observers are invited to submit their views on the modalities, inputs, outputs, and participation approach, as well as to include their **understandings on the scope of the work** already in the Decision. At the same time, the SBs chairs are entrusted with the task of **organizing a workshop** on these matters.

The Decision leaves all scenarios open as to how the task would be taken forward between 2024 and 2025. This includes an **annual programme of in-person, virtual or hybrid GlaSS-style workshops**, as well as other proposals for **expert work that can be complementary** to the workshops. In other words, the workshops can serve as a space for broad technical exchange among parties and relevant stakeholders, alongside the establishment of a permanent working group tasked with preparing and synthesizing information before and after the workshops on indicators to facilitate more effective discussions. This approach builds upon the experience of the GlaSS, where it took at least 5 events to truly begin discussing targets.

Additionally, it is important to design **dynamics with focused objectives** and avoid extensive panel presentations. While such presentations may enrich knowledge, they could divert workshop outcomes from those necessary to fulfill CMA mandates on time and make the UAE Framework fully operational.

Two to four workshops per year could be sufficient to advance the work. The following is a proposal for 2024:


- **One to two workshops focused on:** *‘Methods to assess progress on the targets included in paragraph 10 of Decision 2/CMA.5, including identifying indicators and potential quantified elements for those targets’*

Objectives: sharing experiences, lessons learned and best practices on how to assess progress of IAC targets, including adaptation and support, as well as to facilitate the establishment of robust, nationally appropriate systems for monitoring, evaluating and learning; creating synergies between MEL systems across different scales. The workshop will also pursue to build synergies between the NCQG discussion and the UAE Framework in the context of paragraph 37 of Decision 2/CMA.5.

Inputs: sources of information in paragraph 15 of Decision 2/CMA.5. At the same time, the Parties may consider opening a call for submissions that remain open throughout the two-year work programme, in order to receive inputs prior to the workshops.

Outputs: a synthesis report including methods and indicators to assess progress





of the targets of the iterative adaptation cycle, including action and support. Additionally, the report will highlight synergies between the NCQG and the UAE Framework. The experts group, under the guidance of the SBs chairs, may be responsible for delivering the report.

- **One to two workshops focused on:** *‘Methods to assess progress on the targets included in paragraph 9 of Decision 2/CMA.5, including identifying indicators and potential quantified elements for those targets’*

Objectives: sharing experiences, lessons learned and best practices on how to assess progress of thematic and sectoral targets, including adaptation and support, as well as facilitating the establishment of robust, nationally appropriate systems for monitoring, evaluating, and learning; creating synergies between MEL systems across different scales. The workshop will also pursue to build synergies between the NCQG discussion and the UAE Framework in the context of paragraph 37 of Decision 2/CMA.5.

Inputs: sources of information in paragraph 15 of Decision 2/CMA.5. At the same time, the Parties may consider opening a call for submissions that remain open during the two-year work programme in order to receive inputs prior to the workshops.

Outputs: a synthesis report including methods and indicators to assess progress of the thematic and sectoral targets, including action and support. Furthermore, the report will highlight synergies between the NCQG and the UAE Framework. The experts group, under the guidance of the SBs chairs, may be responsible for delivering the report.

It should be also considered that the CMA also requested the SBs to initiate the consideration of matters related to the GGA at SBs session in June 2024 for delivering recommendations by COP30, taking into account ongoing processes under relevant agenda items and workstreams. This paragraph seeks to close the discussion on a new agenda item on the GGA, given the opposition of some countries in Dubai. However, it should be recognized that current agenda items are not suitable, leaving the problem of locating the remaining work open.

Recommendations for adoption in COP30 should focus, inter alia, in: fostering the exchange of knowledge, experience, and information on the implementation of the Framework and its targets; enhancing understanding of regional risks and impacts under different temperature scenarios; collaborating with the Intergovernmental Panel on Climate Change and other organizations in relation to the targets; framing the work that needs to be continued by identifying potential inputs to future GST and developing terms of reference for reviewing the Framework, including the time frame for review.



6. Examples of Indicators

Considering that additional work is needed under the UAE-Belém work programme to further operationalize the Framework’s dimensional and sectoral/thematic targets, it is crucial to understand and gain an overview of the opportunities and challenges that the use of indicators can offer. It is equally important to acknowledge their limitations in order to appeal to other available methods for a comprehensive evaluation of different aspects of each target. In this regard, the following exercise constitutes an attempt to showcase different examples of indicators under each target that cover input, output, outcome, impact and process. However, this classification is not absolute, since output indicators for one dimension of the IAC may be input for another dimension or for sectoral targets. Thus, the intention is to provide a starting point by showing the broad landscape of possibilities available rather than an exhaustive list of indicators.

In turn, indicators from other international frameworks (Sendai Framework, SDG Framework, CBD Framework, Lancet Countdown, IPCC, FAO, etc.), are important but may not be sufficient or adaptation-specific for monitoring the UAE Framework. Therefore, based on existing indicators, the development of new ones may be necessary. Both the analysis of existing indicators and the generation of new ones require technical expertise that extends beyond the scope of a workshop. Thus, the involvement of a group of experts is essential.

Analyzing dimensional targets is useful to identify the opportunities and challenges associated with their operationalization. For example, the text includes IAC targets comprising various sub-targets, as is the case with the first-dimensional target. Consequently, assessing progress may require a number and a combination of indicators and approaches. These indicators can adopt a quantitative approach, evaluating whether the total number of Parties achieved X or Y by 2030, while also delving into the qualitative characteristics of processes and systems to enable outcome or impact assessment. Additionally, they may consider cross-cutting issues such as gender approaches and indigenous knowledge outlined in the principles and cross-cutting considerations. Both qualitative and quantitative indicators may be process, input, output, outcome, or impact-oriented (UNFCCC, 2015).

| Table 1. DIMENSIONAL TARGET 1. Impact, Vulnerability, and Risk Assessment ^o | |
|---|------------------|
| Examples of quantitative indicators | Results category |
| -Number of Parties that have conducted up-to-date assessments on climate hazards, climate impacts, and exposure to risks and vulnerabilities. | Output |





| | |
|---|---------|
| -Number of Parties that use the outcomes of climate hazards, impacts, and exposure to risks and vulnerabilities assessments to inform the formulation of NAPs and other instruments. | Outcome |
| -Number of Parties with multi-hazard early warning systems and forecasting systems (G2 Sendai Framework). | Output |
| -Number of countries that have accessible, understandable, usable, and relevant disaster risk information and assessment available to the people at the national and local levels (UNDRR, n.d). | Outcome |
| -Climate finance granted and available to carry out risk, impact and vulnerability assessments (proposed by ABU and AILAC in May 2023 Submission). | Input |
| -Financial resources available to support climate data and information management processes (UNFCCC, 2015). | Input |
| -Number/share of national and regional climate risk assessments that include transboundary risks (Davis et. al., 2023) | Outcome |

As for the second IAC target, further operationalization is crucial for understanding how cross-cutting considerations such as gender-responsiveness, participatory and transparent approaches are being considered and implemented at different scales. In this regard, qualitative approaches could be beneficial for capturing the various ways in which countries are implementing these considerations, rather than solely relying on quantitative indicators to gauge their efforts. Similarly, this approach can be applied to mainstreaming adaptation in a wide variety of policy instruments, where strategies on how this has been achieved can provide new ideas for additional initiatives.

| Table 2. DIMENSIONAL TARGET 2. Planning | |
|---|-------------------------|
| Examples of quantitative indicators | Results category |
| -Number of Parties that have NAPs and/or other adaptation instruments in place. | Output |
| -Percentage of NAPs containing gender references (UNFCCC, 2022). | Output |
| -Cumulative number or countries that have prepared the first, second, or fourth national planning instrument since 2000 (UNEP, 2023). | Output |
| -Percentage of cities with adaptation plans. | Output |
| -Number of countries that iteratively update their NAPs. | Output |
| -Length of time between starting the preparation of the NAP to delivering it to policy-makers for endorsement (UNFCCC, 2012). | Process |





| | |
|--|-------------------------|
| -Length of time between the approval of the NAP and the start of its implementation phase (UNFCCC, 2012). | Process |
| Examples of quantitative indicators | Results category |
| -Sustainable development policies include adaptation components. | Output |
| -Presence of inter-bureaucratic synergies for the development of sustainability policies with a focus on adaptation to climate change. | Process |
| -Adaptation options address assessed risks, impacts, hazards or vulnerabilities in priority sectors (UNEP, 2023). | Outcome |
| Examples of quantitative indicators | Results category |
| -Women's participation in decision-making processes associated with the elaboration of NAPs. | Process |
| -Number of NAPs with gender-disaggregated information. | Output |
| -Integration of gender and consideration of the needs, worldviews, and values of Indigenous Peoples and other vulnerable groups in NAPs and/or other adaptation instruments. | Outcome |
| -Stakeholder engagement in adaptation planning processes (UNEP, 2023). | Process |
| -Number of Parties whose NAPs process include a gender-responsive and participatory approach. | Process |
| -Percentage of NAPs containing gender references (UNFCCC, 2022). | Output |

The third IAC target may also represent an opportunity to advance measurement of adaptation effectiveness. The recent AC report: “Methodologies for reviewing the adequacy and effectiveness of adaptation and support: Reference paper” serves as a key input to this discussion (UNFCCC, 2023a). The two-year work programme provides appropriate spaces to reflect on ways to achieve this, considering that effectiveness and adequacy are key features of adaptation in the GST (articles 7.14.c. and d. of the PA). For instance, Table 3 presents examples of qualitative indicators that are useful for gaining insight into avoided climate change impacts or key hazards identified in the first phase of the adaptation cycle. Assessing impact in terms of gross domestic product or the strengthening of inclusion for women and vulnerable groups in resilient livelihood initiatives are also relevant considerations for understanding and evaluating effectiveness in different contexts.



| Table 3. DIMENSIONAL TARGET 3. Implementation | |
|---|-------------------------|
| Examples of quantitative indicators | Results category |
| -Cost of adapting to X climate impact (UNFCCC, n.d) | Input |
| -Average number of new adaptation projects that started under climate multilateral funds during X period (UNEP, 2023) | Output |
| -Number of NAPs financed by climate multilateral funds, bilateral cooperation, and other sources. | Output |
| -Number of NAPs with grants funding in climate multilateral funds. | Output |
| -Number of countries that received financial support for implementing NAPs and other adaptation instruments. | Output |
| -Total number of implemented adaptation actions listed in adaptation-related documents (adapted from UNEP, 2023). | Outcome |
| Examples of qualitative indicators | Results category |
| -Avoided climate impacts as a result of implemented adaptation actions, strategies, policies, and plans. | Impact |
| -Key hazards addressed through implemented adaptation actions. | Outcome |
| -Funding sources of implemented adaptation actions. | Input |
| -Timelines of multilateral climate financing reaching adaptation projects on the ground (UNFCCC,2023b). | Outcome |
| Compound (socio-economic impacts) | Results category |
| -Gross domestic product (GDP), population growth, development strategy, and infrastructure (Malone and La Rovere, 2005) | - |
| -Population, GDP, land use and different types of energy use, and rates of technological progress (IPCC SRES) | - |
| Examples of cross-cutting approaches | Results category |
| -Number of people directly supported by the project to adapt to climate change, disaggregated by gender (Leiter et al.,2019), or number of beneficiaries of adaptation plans, policies, and strategies. | Output |





| | |
|--|---------|
| -Vulnerable groups targeted in implemented adaptation actions (adapted from UNEP, 2023). | Outcome |
| -Priorities of contextually relevant social groups, such as youth, women and persons with disabilities integrated into the design and implementation of adaptation actions (UNEP, 2023). | Outcome |
| -Consideration of indigenous knowledge within specific adaptation actions (UNEP, 2023). | Outcome |

When operationalizing the last IAC dimensional target, it is important to consider the recent UNFCCC Adaptation Committee technical paper on M&E systems, which identified barriers, challenges, and opportunities based on case studies. Among the barriers and challenges mentioned by the AC are the lack of common metrics, indicators, or definitions of success/effectiveness; uncertainties related to climate impacts and adaptation results; limited availability of climate data and unclear reporting mechanisms for adaptation information; the lack of technical and human capacity to design, implement, and sustain M&E systems for adaptation, as well as insufficient resources; and the difficulties in implementing M&E systems as planned (UNFCCC, 2023c). Therefore, implementing the UAE framework should be informed by current countries efforts on developing MEL systems (Beauchamp, 2024). Identification and assessment of barriers, challenges, and needs to set up M&E arrangements and systems would be critical to close the gap in the near future.

| Table 4. DIMENSIONAL TARGET 4. Monitoring, evaluation, and learning | |
|---|-------------------------|
| Examples of quantitative indicators | Results category |
| -Number of countries with monitoring, evaluation, and learning systems (FCCC/SB/2022/ INF.2- Appendix 1). | Output |
| -Number of countries accessing multilateral climate financing for the design and implementation of MEL adaptation systems (proposed by ABU and AILAC in May 2023 Submission). | Outcome |
| -Number of countries that monitor and periodically review the adaptation process. | Process |
| Examples of quantitative indicators | Results category |
| -Extent to which countries integrate MEL information into their updated adaptation related documents. | Outcome |
| -Institutional capacity created to design, establish, and/or operationalize a MEL system. | Outcome |






| Examples of quantitative indicators | Results category |
|---|------------------|
| -Proportion of countries with systems to track and make public allocations for gender equality and women’s empowerment (UN, n.d). | Output |
| -Extent to which gender approaches are included in MEL systems. | Process |

Sectoral and thematic targets discussions were addressed from different angles during the second year of the GlaSS, particularly led by specific groups of developing countries, such as LDCs and AGN (Bueno, et.al., 2023c). Two main issues emerged from these discussions that still represent challenges and require resolution. Firstly, there is a need to differentiate these targets from those outlined in the SDGs and other global frameworks to avoid duplication of efforts and ensure climate-proof targets. The Sharm-el-Sheikh Adaptation Agenda¹⁹ may be also considered as a reference, since it defines attainable outcome targets across the impact systems defined by the Marrakesh Partnership in 2021. Informed by an analysis of hazards faced by vulnerable communities, this agenda delineates actions necessary to address these hazards. As such, it effectively links climate change considerations to each adaptation outcome, aiming to mitigate vulnerability and exposure to these hazards.

The second issue raised pertained to countries developing their own sectoral targets and indicators,, with potential overlaps with the UAE Framework sectoral and thematic targets and indicators. The countries may have the opportunity to communicate their contributions and efforts towards achieving these targets, regardless of the indicator or method chosen to track UAE Framework targets. This flexibility can perfectly accommodate Parties with thematic and sectoral related targets, even if its formulation is not exactly the same.

The tables showcasing examples of sectoral or thematic indicators refer to existing international frameworks and explore their potential application to the UAE Framework

|  Table 5. SECTORAL TARGET: WATER | |
|--|------------------|
| Examples of quantitative indicators | Results category |
| - Proportion of population using safely managed drinking water services (6.1.1. - SDG Framework). | Output |

19 Available at <https://www.ukcip.org.uk/wp-content/PDFs/UKCIP-transformational-adaptation-final.pdf>





| | |
|---|-------------------------|
| -Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water (6.2.1.- SDG Framework). | Outcome |
| - Number of countries that have developed water demand management strategies that factor in the human rights to water and sanitation (UNFCCC, 2023d). | Output |
| -Percentage of population in climate change risk areas with better access to water (based on UNDP, 2019). | Impact |
| Examples of quantitative indicators | Results category |
| -Trends in the proportion of the population exposed to drought as a percentage of the total population (UNCCD). | Outcome |
| -Degree of integrated water resources management (6.5.1 - SDG Framework). | Outcome |
| -Change in water-use efficiency over time (6.4.1 -SDG framework). | Impact |
| -Level of water stress: freshwater withdrawal as a proportion of available freshwater resources (6.4.2 -SDG framework). | Outcome |
| -Observed impacts on water scarcity (IPCC, 2022b). | Input |
| -Water-related adaptation planning as part of NAPs. | Output |
| Examples of cross-cutting considerations | Results category |
| -Access to water in drought prone and climate change risk areas disaggregated by gender (based on UNDP, 2019). | Outcome |
| -Mainstreaming of indigenous peoples' knowledge, traditional knowledge, and local people's knowledge in climate resilient management of water resources. | Outcome |
| -Number and percentage of regional, national, sub-national, and sectoral water policy frameworks that are gender-sensitive /responsive/ transformative, and status of implementation (Miletto et. al., 2019). | Output |
| -Perception of F/M members of local communities regarding the impacts on local water resources (surface water bodies and aquifers), ecosystems, and livelihoods as a result of transboundary water management (TWM) actions, programmes, and projects (Miletto et. al., 2019). -Number of F/M members (with age and position) in local households migrating seasonally or permanently due to impact on local water sources, as a result of disputes over shared water resources at national, sub-national, and international levels (Miletto et. al., 2019). | Impact |





Table 6. SECTORAL TARGET: FOOD AND AGRICULTURE

| Examples of quantitative indicators | Results category |
|---|-------------------------|
| -Prevalence of undernourishment (2.1.1 - SDG Framework). | Impact |
| -Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES) (2.1.2 - SDG Framework). | Impact |
| -Proportion of agricultural area under productive and sustainable agriculture (2.4.1 - SDG Framework). | Outcome |
| -Number of Parties including climate-resilient options in NAPs related to food and agriculture. | Outcome |
| -Population with equitable and adequate access to food as a result of climate-resilient policies and frameworks. | Outcome |
| -Percentage increase in crop production from regenerative agriculture (based on UNDP, 2019). | Outcome |
| Examples of qualitative indicators | Results category |
| -Achievement of climate-resilient food and agricultural production in the face of heat waves (based on UNFCCC LEG, 2015). | Impact |
| -Number and type of agricultural-resilience practices included in municipal / departmental development and adaptation plans (based on FAO, n.d). | Outcome |
| -Agricultural information systems that include climate change adaptation in its variables (based on FAO, s/f). | Output |
| Example of quantitative approaches including cross-cutting considerations | Results category |
| -Average income of small-scale food producers, by sex and indigenous status (2.3.2 - SDG Framework). | Input |
| -Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure (5.a.1 (a) - SDG Framework). | Impact |
| -Indigenous Peoples' Knowledge applied to soil restoration and regeneration. | Outcome |
| -Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control (5.a.2 - SDG Framework). | Outcome |



**Table 7. SECTORAL TARGET: HEALTH**

| Examples of quantitative indicators | Results category |
|--|-------------------------|
| -Coverage of essential health services (3.8.1 - SDG framework). | Impact |
| -Proportion of health facilities with a core set of relevant essential medicines available and affordable on a sustainable basis (3.b.3 -SDG Framework). | Impact |
| -Number of deaths attributed to disasters, per 100,000 population (A1 - Sendai Framework). | Outcome |
| -Number of injured or ill people attributed to disasters, per 100,000 population (B2 - Sendai Framework). | Outcome |
| -Global multilateral funding assigned by the Green Climate Fund (GCF) for adaptation projects in 2022 (Lancet, 2023) ²⁰ . | Input |
| Examples of qualitative indicators | Results category |
| -International Health Regulations (IHR) capacity and health emergency preparedness (3.d.1 -SDG Framework). | Impact |
| -Adaptation options included in NAPs focused on building resilience to climate change health impacts. | Outcomes |
| -Occurrence of flood and storm events, including the number of deadly events (Romanello et al., 2023) ²¹ . | Outcome |
| Examples of cross-cutting considerations | Results category |
| -Absolute change (in millions) in the number of heatwave person-days experienced by vulnerable groups, by HDI group and WHO region (11-year moving average) (Romanello et al., 2023) ²² . | Impact |
| -Women resources for climate-resilient health services. -Coverage of climate health services disaggregated by sex. | Output |

20 Available online at <https://www.lancetcountdown.org/data-platform/adaptation-planning-and-resilience-for-health/2-2-climate-information-services-for-health/2-2-4-health-adaptation-related-funding>

21 Available online at <https://www.lancetcountdown.org/data-platform/adaptation-planning-and-resilience-for-health/2-3-vulnerabilities-health-risk-and-resilience-to-climate-change/2-3-2-air-conditioning-benefits-and-harms>

22 Available at <https://www.lancetcountdown.org/data-platform/health-hazards-exposures-and-impacts/1-1-health-and-heat/1-1-2-health-and-exposure-to-warming>



**Table 8. SECTORAL TARGET: Ecosystems and biodiversity**

| Examples of quantitative indicators | Results category |
|---|-------------------------|
| -Extent of natural ecosystems (3.a goal, 2b target- CBD). | Outcome |
| -Red List of Ecosystems (3.a goal, 2b target - CBD). | Outcome |
| -Proportion of important sites for terrestrial and freshwater biodiversity covered by protected areas, categorized by ecosystem type (15.1.2. SDG Framework). | Outcome |
| -Proportion of important sites for mountain biodiversity covered by protected areas (15.4.1 - SDG Framework). | Outcome |
| Examples of qualitative indicators | Results category |
| -Observed impacts of climate change on ecosystems (Changes in Ecosystem Structure; Species Range Shifts; Changes in Phenology) (IPCC WG 2 Report). | Impact |
| -Extent to which countries integrate and implement ecosystems-based adaptation and nature-based solutions into NAPs and related adaptation documents. | Outcome |
| Examples of cross-cutting approaches | Results category |
| -Traditional knowledge and indigenous peoples knowledge integrated in the protection of ecosystems. | Outcome |
| -Proportion of men and women in community-based natural resources management (Based on CBD, 2020) ²³ . | Outcome |

**Table 9. SECTORAL TARGET: Infrastructure and human settlements**

| Examples of quantitative indicators | Results category |
|--|-------------------------|
| -Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically (11.3.2 -SDG Framework). | Outcome |
| -Average percentage of the built-up area of cities designated as green or blue spaces for public use (11.0.1-CBD). | Output |
| -Proportion of the urban population living in slums, informal settlements or inadequate housing (11.1.1 -SDG Framework). | Outcome |
| -Number of people whose damaged dwellings were attributed to disasters (B3 - Sendai Framework). | Outcome |
| -Number of people whose destroyed dwellings were attributed to disasters (B4 - Sendai Framework). | Outcome |

23 Available online at https://www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf



| | |
|---|-------------------------|
| -Total official international support (official development assistance plus other official flows) to infrastructure (9.a.1. SDG Framework). | Input |
| -Direct economic loss in relation to global GDP, damage to critical infrastructure, and number of disruptions to basic services, attributed to disasters (11.5.2. SDG Framework). -Direct economic loss resulting from damaged or destroyed critical infrastructure attributed to disasters (C5 Sendai Framework). | Outcome |
| Examples of qualitative indicators | Results category |
| -Type and scale of adaptation options addressing climate risks in the infrastructure sector included in NAPs and adaptation related documents. | Outcome |
| -Degree of integration of climate proof -infrastructure solutions in NAPs and adaptation related documents. | Outcome |
| -Extent to which countries incorporate natural infrastructure solutions into planning to enhance the resilience of infrastructure systems to climate change impacts. | Outcome |
| Examples of cross-cutting considerations | Results category |
| -Access of men and women to essential services by country. | Outcome |
| -Extent to which projected hazards are considered in indigenous peoples' housing and infrastructure. | Input |
| -Direct loss of economic, ecological, cultural and subsistence values through loss of land, infrastructure, and coastal habitats (Machi et. al, 2008) ²⁴ . | Impact |



Table 10. SECTORAL TARGET: Poverty and livelihoods

| | |
|--|-------------------------|
| Examples of quantitative indicators (including cross-cutting) | Results category |
| -Proportion of the population living below the international poverty line by sex, age, employment status, and geographic location (urban/rural) (1.2.2 - SDG Framework). | Impact |
| -Per capita growth rates of expenditures or household income of the poorest 40% of the population and the total population (10.1.1 -SDG Framework). | Outcome |
| -Number of people whose livelihoods were disrupted or destroyed, attributed to disasters (B5 - Sendai Framework). | Outcome |
| Examples of qualitative indicators | Results category |
| -Type and scale of adaptation strategies seeking to strengthen climate resilience livelihoods included in NAPs and adaptation related documents. | Outcome |
| -Adaptation options including adaptive social protection measures, such as livelihood diversification. | Outcome |

24 The IPPC mentions this indicator as one of the main impacts of sea level rise. Available at <https://www.2.ohchr.org/english/issues/climatechange/docs/iucn.pdf>



| Examples of cross-cutting considerations | Results category |
|---|------------------|
| -Adaptive capacity to diversify alternative livelihoods after climate related events, disaggregated by sex. | Impact |
| -Variation of female-headed households as a result of extreme events. | Outcome |



Table 11. SECTORAL TARGET: Cultural heritage

| Examples of quantitative indicators | Results category |
|---|------------------|
| -Total per capita expenditure on the preservation, protection, and conservation of all cultural and natural heritage, by source of funding (public, private), type of heritage (cultural, natural) and level of government (national, regional, and local/municipal) (11.4.1- SDG Framework). | Input |
| -Checklist for the climate adaptation framework, particularly including traditional practices for resilience (Indicator 3, UNESCO). | Output |
| Examples of qualitative indicators | Results category |
| -Mainstreaming adaptation options for cultural heritage into the existing methodologies for preservation and conservation of sites, buildings, settlements, landscapes, movable objects, and the living traditions (based on ICOMOS, 2007) ²⁵ . | Outcome |
| -Mainstreaming cultural heritage adaptation needs and concerns in institutional processes and policies of adaptation and disaster reduction (based on ICOMOS, 2007). | Process |
| -Number and size of open spaces used for cultural purposes by type of use (Indicator 5, UNESCO ²⁶). | Input |
| -Integration of tangible and intangible cultural heritage in NAPs and/or other adaptation instruments. | Outcome |
| Examples of cross-cutting approaches | Results category |
| -Indigenous peoples knowledge and local communities knowledge integrated in the policies and frameworks for preserving cultural practices and heritage sites from climate change impacts. | Outcome |

7. 2024 negotiations and perspectives towards Brazil

The year 2024 is crucial to deliver robust and impactful recommendations for the adoption of the UAE framework in 2025. Incorporating the lessons learned in the GlaSS work programme is essential in drawing the path towards COP30. As such, the

²⁵ International Council on Monuments and Sites (ICOMOS). Resolution at the International Workshop on Impact of Climate Change on Cultural Heritage, New Delhi (22 May 2007).

²⁶ Available at <https://unesdoc.unesco.org/ark:/48223/pf0000371562>





UAE-Belém work programme should strive to maximize the value of each meeting by organizing outcome-oriented workshops that contribute to the negotiation process.

In this regard, there are several related milestones leading up to Bakú and Belém: the first round of BTRs in 2024 and a new round of NDCs in 2025. These milestones include setting the NCQG from a floor of USD 100 billion per year prior to 2025 and fulfilling the Glasgow Climate Pact mandate, in which developed countries Parties were urged to at least double their collective provision of climate finance for adaptation to developing countries Parties from 2019 levels by 2025.

The UAE framework efforts in 2024 should be focused on preparing the ground for adopting a comprehensive set of indicators, to assess and review the progress of targets in paragraphs 9 and 10 in Decision 2/CMA.5 and with the view of assessing progress of the GGA itself. Thus, it is critical to exchange experiences and views among Parties and stakeholders to understand different options and experiences, with the aim of building a comprehensive set of qualitative and quantitative indicators based on national, local, and subnational MELs.

Furthermore, it is highly recommended to seize additional opportunities in other multilateral fora, such as the G20. Under the Brazilian Presidency, the G20 proposed relevant adaptation-related outcomes that should consider the UAE framework. For instance, the G20 guidelines for assessing climate risks and vulnerabilities at the country level, as well as recommendations for integrating resilience and adaptation concerns into public and private investments. This includes prioritizing criteria for infrastructure investment and ensuring that adaptation plans also serve as investment plans.

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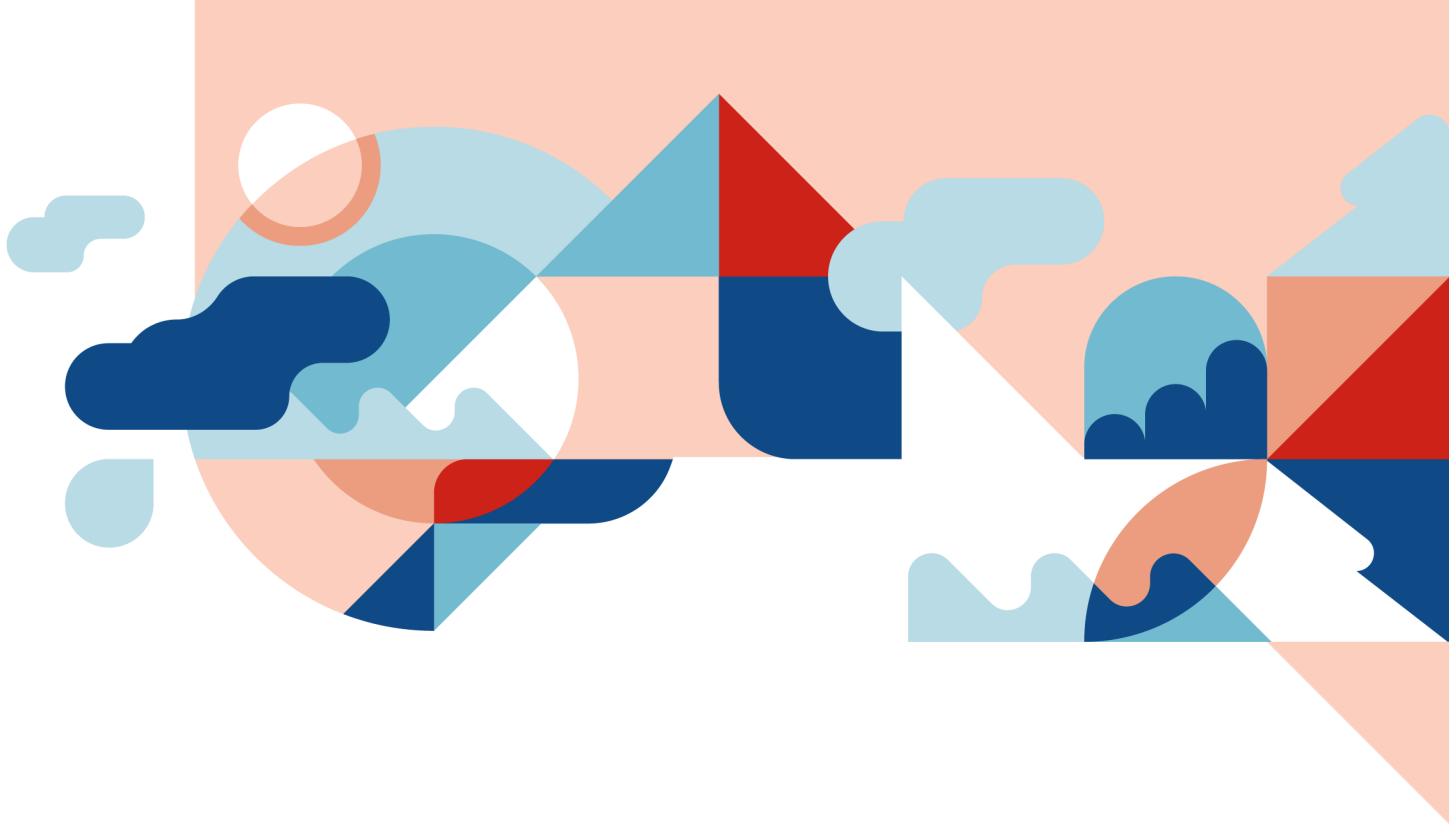
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