Summary of the sixth workshop under the Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation: Zooming in on target-setting, metrics, methodologies and indicators for the global goal on adaptation and on the steps of an iterative adaptation cycle and means of implementation, taking account of the systems and sectors set out by the Intergovernmental Panel on Climate Change, and of options for enhancing efforts to mainstream adaptation in national priority areas or sectors (decision 3/CMA.4, para. 20(a–d))

7 July 2023

I. Introduction

A. Mandate

- 1. The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), at its third session, decided to establish and launch a comprehensive two-year Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation, to start immediately after that session and to be carried out jointly by the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI). It also decided that four workshops should be conducted per year under the work programme, with the support of the secretariat and under the guidance of the Chairs of the subsidiary bodies.¹
- 2. SB 56 requested the secretariat, under the guidance of their Chairs, to prepare a summary of each workshop² in the context of preparing a single annual report on the workshops for consideration at the sessions of the subsidiary bodies coinciding with the sessions of the CMA.³
- 3. CMA 4 welcomed the progress made during the first year of the work programme and requested the Chairs of the subsidiary bodies to select the themes for the workshops to be held in 2023.⁴ The themes for the fifth to eighth workshops were outlined in the information note by the Chairs of the subsidiary bodies, published on 8 February 2023.⁵

B. Proceedings

- 4. The sixth workshop under the work programme⁶ was held in hybrid format from 4 to 5 June 2023 in Bonn, Germany, and broadcast live on YouTube,⁷ with more than 300 registered in-person and virtual participants.
- 5. The workshop covered a wide range of themes and methodologies. The plenary sessions focused on methodological questions (target-setting, metrics, methodologies and indicators), on mainstreaming adaptation at the national level, and on enhancing and tracking

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¹ Decision 7/CMA.3, paras. 2–4 and 12.

² FCCC/SBI/2022/10 para 192.

³ Decision 7/CMA.3, para. 16.

⁴ Decision 3/CMA.4, para. 20.

⁵ Available at https://unfccc.int/documents/626532.

⁶ The concept note, agenda and presentations for the sixth workshop are available at https://unfccc.int/event/sixth-workshop-under-the-glasgow-sharm-el-sheikh-work-programme-on-the-global-goal-on-adaptation.

Nee https://www.youtube.com/watch?v=M0vFADOWieA&list=PLBcZ22cUY9RL6BE-vu4wCipLXokStt9lA&index=2.

action and support. The breakout groups, informed by the plenary discussions, considered several questions related to the design of the framework for the global goal on adaptation (GGA), in particular its purposes, general ways of achieving those purposes, relevant stakeholders and their roles, and the functions of its targets and indicators. In addition, one of the breakout group sessions focused on providing input to the global stocktake (GST).

6. Opening remarks for the workshop were provided by the Rapporteur of the SBSTA, Zita Wilks, on behalf of the SBSTA Chair. The workshop was moderated by Morgan Whalen (Canada) and Thinley Namgyel (United Arab Emirates), and the breakout group sessions were moderated by Christina Rumbaitis del Rio (United Nations Foundation), Timo Leiter (London School of Economics), Animesh Kumar (United Nations Office for Disaster Risk Reduction (UNDRR)) and Emilie Beauchamp (International Institute for Sustainable Development). The workshop concluded with closing remarks delivered by Morgan Whalen on behalf of the Chair of the SBI, His Excellency, Ambassador Nabeel Munir.

II. Summary of discussions

A. Plenary sessions

1. Plenary session 1: Zooming in on target-setting, metrics, methodologies and indicators

- 7. Plenary session 1 focused on processes for target-setting, metrics, methodologies and indicators. The session was kicked off by a presentation by the secretariat, which introduced the existing work under the UNFCCC on targets, metrics, methodologies and indicators.
- The presentation by the secretariat highlighted the 2021 technical paper by the Adaptation Committee (AC) on approaches to reviewing the overall progress in achieving the GGA, which highlighted the related methodological, political and conceptual challenges and suggested that merging different approaches (e.g. quantitative and qualitative) could enable more holistic and balanced results. The presentation described the secretariat's compilation and synthesis of indicators, targets, approaches and metrics, which complemented the AC 2021 technical paper by considering examples that were not included in the AC paper or have been updated since then, including options for forward-looking indicators and scenarios. The presentation outlined the frameworks used by other international organizations and mechanisms, including the Sustainable Development Goals (SDGs), UNDRR, the World Meteorological Organization (WMO) and the Food and Agriculture Organization of the United Nations (FAO), as well as regional and national examples, such as those presented in nationally determined contributions (NDCs). It also highlighted examples of approaches and baselines for reviewing adaptation presented at the third workshop under the Glasgow-Sharm el-Shiekh work programme on the GGA, including those presented by UNDRR, the Intergovernmental Panel on Climate Change (IPCC), WMO, FAO and the United Nations Statistics Division. Further frameworks and ongoing bodies of work were introduced as part of the discussion on transformational adaptation and mindset change at the fifth workshop, including the monitoring arrangements for the Kunming-Montreal Global Biodiversity Framework of the Convention on Biological Diversity (CBD), the IPCC "burning embers" graphs, potential indicators reflecting the participation of Indigenous Peoples, the Children's Climate Risk Index of the United Nations Children's Fund, the SDGs, and indicators for the global commons (e.g. under the United Nations High Seas Treaty). In addition, the presentation highlighted the targets under other multilateral, regional and national frameworks, and that that many targets are interlinked; a visual representation of them revealed a large nexus of interconnected systems that could be addressed, for example, through a sectoral or hazard lens.
- 9. The presentation by the secretariat was followed by a panel discussion including three presentations. A representative of UNDRR presented the goals, targets and metrics developed under the Sendai Framework for Disaster Risk Reduction 2015-2030 A representative of the CBD outlined the monitoring and reporting arrangements under the Kunming-Montreal Global Biodiversity Framework under the CBD. Finally, adaptation challenges for seaports were discussed by a representative of the United Nations Conference on Trade and Development (UNCTAD).

- 10. The representative of UNDRR considered how the lessons learned under the Sendai Framework monitoring system could benefit the work on the GGA. First, the presentation emphasized that effective monitoring and evaluation should focus on what to do, what is being done, and how to assess outcomes. However, experience under the Sendai Framework has indicated that outcomes are often missed. For example, under the Hyogo Framework for Action 2005–2015, good progress on implementation indicators was reported but, at the same time, disaster impacts and loss and damage also increased. He emphasized that targets and indicators should therefore be geared towards outcomes and outputs, not just implementation. Second, under the Sendai Framework, monitoring occurs at the outcome level, but since outcome metrics can differ across stakeholders, the system aims to balance global goals with national implementation and monitoring. To achieve such a balance, the Sendai Framework approach enables countries to pursue shared global goals, but also to decide on the action they take at the national level to pursue those goals. To help countries prioritize action, the Sendai Framework provides a set of priority actions and custom indicators that countries can use to monitor their national plans and report on the outcomes and outputs of their actions. The representative suggested that, in the context of adaptation, this means that all countries could pursue the GGA, but could achieve it through different pathways. Third, he discussed the requirements for successful aggregation, which include universal global targets and quantification at the national level. While some indicators are simple, others are complex and aggregation requires indicators that are quantifiable but can be complemented by qualitative measures to address the limitations of quantitative metrics. To overcome the limitations of absolute figures, UNDRR uses relative figures such as economic losses as a proportion of gross domestic product or per capita mortality rates. The representative also shared examples of targets and aggregation. For example, countries can report on sectoral actions, conduct self-assessment on specific elements on a scale of 1 to 10, or use checklists to specify which frameworks are being implemented (e.g. early warning systems). The checklist approach can, in particular, enhance quantification and comparability. UNDRR has also developed a tracking system for loss and damage which is now used by 110 countries. Finally, the representative described how endorsing goals and establishing indicators required a significant amount of time, after which things moved faster, and emphasized the importance of not rushing things even under political pressure. As a key takeaway for the discussions on the GGA, he suggested approaching goal-setting as a political exercise and indicators as a technical process. He also suggested separating global aggregation and national monitoring, and balancing ambition and realism. Finally, he said that UNDRR stood ready to share further information and indicators, as needed.
- The representative of the CBD outlined how the Kunming-Montreal Global Biodiversity Framework encompasses a high-level vision, four goals relating to the CBD objectives and financial resources, as well as 23 global targets to be achieved by 2030 in relation to threats to biodiversity, impacts on people and response options. The presentation outlined how the development of indicators has been an iterative process combining policy and expert inputs (including through an ad hoc expert group), experience with the 2010 biodiversity target and Aichi biodiversity targets, and selection criteria such as the availability of public data and peer-reviewed methods. The framework involves 36 headline indicators, 13 binary indicators (involving yes/no answers), 52 component indicators and 257 complementary indicators, and the ad hoc expert group continues to advise on how to fill indicator gaps, and on data and methods. The representative also highlighted how aggregation depends on the indicator. For example, some headline indicators can be aggregated using remote-sensing data, and binary indicators can be aggregated by counting the yes and/or no responses. Binary indicators are considered secondary to headline indicators, which better reflect impacts rather than process. Parties can further report on optional components and complementary indicators where data are available and as appropriate to their national circumstances. The framework aligns with other processes, including the System of Environmental Economic Accounting as a statistical standard. The presenter also introduced the dashboard used for the fifth edition of the Global Biodiversity Outlook, which shows progress towards the process indicators of the biodiversity targets by 2020, thereby illustrating that even though many process targets are being achieved, several impact or outcome indicators are not. Therefore, as also emphasized by the UNDRR presentation, it is necessary to be cautious about process indicators as they do not necessarily equate to progress. In parallel with national reporting, indigenous peoples and local

communities have their own reporting arrangements as part of the Kunming-Montreal Global Biodiversity Framework. Finally, the presentation emphasized that no single headline indicator is sufficient to cover all aspects of goals and targets, many indicators are crosscutting, only some can be aggregated, there are gaps in national capacity and data availability, and some indicators require significant resources and new methodologies.

- 12. In the last presentation, the representative of UNCTAD highlighted that seaports are vital for trade, the blue economy and small island developing States (SIDS), but no indicators exist to consider impacts and adaptation globally. She described how ports are vulnerable to climate change, and how recent projections for 3,700 ports indicate that with a 1.5 °C temperature increase, '1 in 100-year' events will occur once every 10 years, and with a 3 °C increase, they will occur multiple times per year. While the threats are recognized and costs of inaction are huge, relatively little action has been taken. As solutions, the presenter highlighted how international mechanisms such as the SDGs and the Sendai Framework could contribute to the resilience of transport infrastructure. She also emphasized that a response could involve mainstreaming climate considerations in port development, defining long-term goals, conducting risk assessments, developing legal and policy frameworks, strengthening data and planning, applying ecosystems-based adaptation, improving capacity and finance, enhancing infrastructure access, and considering ports in national policy frameworks such as national adaptation plans (NAPs).
- 13. In the discussion, participants asked about options for preventing bias in indicators, how to know whether progress is actually being made, the balance between political and technical work in developing indicators, the nature of reporting, and technical support options. One participant cautioned against an exclusive use of indicators at the cost of other important dimensions. In response, it was acknowledged that reporting frameworks cannot consider everything, but they do enhance the provision of information and coherence. As possible solutions, the representative outlined how UNDRR tries to achieve a balance between the indicators and contextual information via a process through which countries can add explanatory notes that are captured in reports, ensuring that indicators are complemented by qualitative descriptions.
- 14. Another participant enquired about how to know whether implementation and support are improving. In response, it was emphasized that no perfect frameworks exist to determine this, global monitoring is fraught with challenges, and countries have diverse pathways towards achieving the same goals. However, a combination of quantitative and qualitative output- and outcome-based targets can help, and a menu of options can allow countries to follow standards that converge over time. In the context of the GGA, the challenge would be to connect such modalities with the understanding of what constitutes an adequate adaptation response.
- 15. Participants also asked how other frameworks have balanced political and technical work when developing targets and indicators. As an example, the representative explained that UNDRR used an open working group, with the participation of negotiators and technical experts. This ensured both adequate technical inputs and a strong intergovernmental component.
- 16. Participants also asked about the nature of reporting. The representative of UNDRR outlined that, while reporting through the Sendai Framework is voluntary, annual global reports tend to put pressure on governments to provide information, and so far 156 of them have reported information. He also emphasized that legally binding reporting might have created other limitations and burdens. In contrast, national reporting is mandatory under the Kunming-Montreal Global Biodiversity Framework, with the first national reports due in 2026. In parallel, indigenous peoples and local communities have their own reporting track and produce their own outlooks.
- 17. Participants also enquired how organizations help developing countries in tackling data challenges. UNDRR does this by helping statistics ministries to enhance data quality (so far, 110 countries have benefited from this support), and by advising countries on how to improve their early warning systems on the basis of the data they have submitted.
- 18. Participants also asked about the process of establishing baselines. In the case of UNDRR, baselines are determined by countries, and no additional data are used for

aggregating them at the global level, although additional resources are used to complement the analysis. Further questions were related to specific metrics, the importance of further analysis in relation to impacts and adaptation in Africa, as well as ways of ensuring that databases are dynamic, interoperable and standardized.

2. Plenary session 2: Approaches to enhancing efforts to mainstream adaptation in national priority areas or sectors

- 19. Plenary session 2 focused on mainstreaming adaptation at the national level. National experience was shared by representatives of the United States of America, Panama, the United Kingdom and Ethiopia. The presentations were followed by a discussion.
- 20. The representative of the United States described the current Administration's efforts to prioritize climate change as part of all policies and to coordinate responses. She highlighted several of the current climate impacts in the United States. For example, 2022 was the year with the highest recorded damage, with the impacts of drought and low water levels causing agricultural damage and heat-related mortality in the western United States. She also highlighted solutions, including how the President's National Climate Task Force is considering impacts and solutions, and emphasized that, while most actions happen at the state level, federal agencies can set goals for resilience, and so far 20 federal agency plans have developed solutions, including a United States Department of Agriculture plan for agriculture and forestry, and a United States Small Business Administration loan scheme for small businesses. She also described a federal toolkit that is available to guide local action through guidance for planning, case studies, data visualization and funding, as well as efforts to relocate native American communities. In terms of international cooperation, she highlighted the Government's PREPARE programme to help 500 million people to adapt, a request submitted to Congress to secure USD 3 billion annually from 2024, and ongoing work to support Africa.
- 21. The representative of Panama described national efforts to manage data on adaptation, and loss and damage. This happens through a national monitoring and evaluation system, which involves a national transparency platform focused on adaptation data and serving as an information source for stakeholders, as well as the SIRED platform, which is used to collect data on loss and damage. For adaptation, she highlighted that Panama has developed 21 indicators, which are accompanied by methods, trainings and methodological sheets and were built using specific, measurable, achievable, relevant and time-bound (SMART) criteria and existing information, including international indicators developed by the German Agency for International Cooperation, the Green Climate Fund (GCF), the Adaptation Fund, UNDRR and FAO, and in the context of the SDGs. The indicators include, for example, the number of meteorological stations, number of project beneficiaries, and the size of the reforested area. Panama is currently working on a NAP, which will involve its own indicators. However, the representative described how the indicator framework has already enabled international reporting and will inform the preparation of Panama's biennial transparency report. Panama has also identified 16 indicators for loss and damage, which are mostly backward-looking (e.g. budget allocation to respond to extreme events, number of families benefiting from aid, or number of cattle killed by drought). As challenges, she highlighted data continuity, institutional involvement and analytical capacity. However, she was optimistic that the GGA framework can guide further national work on indicators and help to understand levels of progress and gaps.
- 22. The representatives of the United Kingdom described the arrangements for reporting on risks and actions. Reports of government bodies provide the basis for monitoring and evaluation, which is organized around the adaptation policy cycle. The representatives also highlighted the Government's Green Book a handbook of appraisals that guides accounting on the effects of climate change and enables climate risk to be factored into decision-making across government bodies. In addition, the United Kingdom Climate Change Committee issues a biennial report assessing the progress by the Government, with a focus on how climate risks are being managed (based on indicators), the quality of government plans, and recommendations. The Government must then respond to the report's findings. As key lessons, the representatives highlighted the importance of tailoring resources so as to be

helpful to stakeholders, making climate information more relevant to its users, and prioritizing learning.

- In the fourth presentation, the representative of Ethiopia explained that Ethiopia prepared the 2017 and 2022 Voluntary National Reviews on SDGs in response to the invitation from the United Nations Economic and Social Council. He described how global targets, including those related to the SDGs and the Sendai Framework, have been translated to the national level in the context of Ethiopia's 10-year development plan, providing an example of how global targets can be mainstreamed into the national architecture. He outlined how the national vision was informed by a combination of global frameworks and local community inputs, and its development involved a voluntary national review of the SDGs using surveys, census data, databases, a key performance indicator matrix and a range of indicators. The representative also shared lessons of relevance to the GGA, learned through mainstreaming and integrating global targets into Ethiopia's development planning. These included recognizing the benefit of global processes, which have created realistic expectations and a better representation of national development trajectories; acknowledging that not all SDGs and indicators are necessarily applicable to all countries and that only 79 of the 232 indicators were reported for Ethiopia owing to data gaps; and recognizing the importance of institutional capacity for data generation, mainstreaming and onboarding specialists with the necessary skills and knowledge in monitoring and evaluation systems and how that resulted in the second review of Ethiopia being much richer both in terms of substance and process as the country builds better.
- 24. In the discussion, participants were interested, among other things, in which indicators had been used at the national level to monitor means of implementation. The representative of the United States described how means of implementation are monitored on the basis of federal guidance for state budgeting. In the case of Panama, means of implementation are tracked within the process of preparing reports under the UNFCCC. One participant enquired what monitoring and evaluation frameworks Panama had used in the absence of a NAP. The representative of Panama highlighted that the national monitoring and evaluation framework has been designed to encompass all adaptation actions. In response to a question raised on the arrangements for reporting at different governance levels, the representative of the United Kingdom highlighted that the United Kingdom's Green Book and Climate Change Committee focus on various governance levels, including the United Kingdom's three devolved administrations.
- 25. In addition, representatives of some constituted bodies namely, the AC, the Least Developed Countries Expert Group (LEG) and the Facilitative Working Group (FWG) of the Local Communities and Indigenous Peoples Platform (LCIPP) welcomed the invitation of CMA 4 to share their work related to indicators, metrics and targets to contribute to the Glasgow–Sharm el-Sheikh work programme in 2023.8 The Co-Chair of the AC described the ongoing work of the AC in relation to the GGA work programme, highlighting how its work on monitoring, evaluation and indicators could serve as an input to the work on targets and indicators. She also noted ongoing work with the LEG and the Standing Committee on Finance on methods to assess the adequacy and effectiveness of adaptation, which will soon be made publicly available. She also outlined the work of the AC on analysing the coherence of the multilateral system, developing an online tool that makes information on actions related to the adaptation policy cycle readily available, conducting an in-depth analysis of all nationally reported information submitted to the UNFCCC, and on the forthcoming relaunch of the Adaptation Forum.
- 26. Mr. Mokoena France, on behalf of the Chair of the LEG, described the core activity of the LEG, namely to track the process of formulating and implementing NAPs, including experience and challenges. He also highlighted that the LEG has developed a tool for monitoring and assessing progress in NAPs, called the PEC M&E tool. The tool is applied in the preparation of the annual progress report on NAPs and provides measures to summarize progress by each country. The LEG is now updating the PEC-NME tool by developing outcome metrics and better considering challenges in measuring adaptation outcomes. The

⁸ Decision 3/CMA.4, para. 22.

representative expressed the readiness of the LEG to further contribute to the work on the GGA.

27. A representative of the FWG of the LCIPP emphasized that the GGA provides an opportunity for a mindset change from exploitation of nature to symbiosis with it, and encouraged putting the values, knowledge systems and engagement of indigenous peoples at the centre of the work on the GGA and developing corresponding metrics and adaptation measures that transcend monetary values and capture the true value of ecosystem services and human well-being. The representative of the FWG highlighted that transformative change can only be achieved through a mindset shift, collective action, mutual learning and shared responsibility. Finally, she expressed gratitude to the Chairs of the subsidiary bodies for their continued efforts working with indigenous peoples and local communities through the FWG and the LCIPP.

3. Plenary session 3: Approaches for enhancing and tracking action and support for the steps of adaptation cycle

- 28. Plenary session 3 was a panel discussion with representatives of three operating entities of the UNFCCC Financial Mechanism, as well as of other international financial institutions, to consider the approaches taken by those organizations to enhance and track action and support for adaptation. The panellists represented the Adaptation Fund (AF), the Global Environment Facility (GEF), the GCF, the World Bank, the International Fund for Agricultural Development (IFAD) and the African Development Bank (AfDB).
- 29. The panellists were asked to outline their work to assess adaptation needs and gaps, in particular for transformational adaptation in developing countries, and to consider what role the UNFCCC Financial Mechanism and international financial institutions could have in supporting the elements of the adaptation policy cycle in SIDS and the least developed countries (LDCs).
- 30. The representative of the GEF described its ongoing support for the formulation of NAPs and the implementation of related projects, its cumulative grants of USD 2 billion provided for resilience actions and its engagement in adaptation projects. He emphasized that the GEF mostly relies on country priorities when allocating support, and highlighted that the GEF is now beginning its eighth replenishment cycle and intends to focus on transformational adaptation and increased funding for the LDCs, SIDS and other developing countries.
- 31. The representative of the AF emphasized that its funding is based on country needs and priorities. While the AF does not fund NAPs or have a sectoral focus, he indicated its readiness to fund NAP-based projects through a needs-based approach. Recently, the AF opened an innovation window, which provides grants of between USD 250,000 and 5 million per country. Finally, he highlighted the increased demand from countries for locally led adaptation, and the AF readiness programme which supports local projects.
- 32. The representative of the GCF highlighted that the GCF has achieved a balance between funding for mitigation and adaptation, that its readiness programme is supporting 101 NAP formulation projects with grants of USD 3 million each, and that it provides support for transformational adaptation throughout the entire project cycle from support to implementation. In addition, the GCF Project Preparation Facility provides USD 1.5 million for adaptation projects. He highlighted that the GCF is committed to providing more than 50 per cent of its funding to the LDCs, SIDS and African States, and currently provides 67 per cent of its funding to that end. In addition, the GCF cooperates with the LEG on NAP formulation workshops and provides guidance to the LDCs for accessing funding.
- 33. The representative of the World Bank highlighted that the proportion of climate finance has increased from 26 to 35 per cent of its funding portfolio, that 50 per cent of its USD 26 billion climate finance will support adaptation, and that it is in the process of aligning its work with the Paris Agreement. In terms of monitoring, she described the World Bank's new core diagnostic, which is based on national climate and development reports and informs its operations and support. For adaptation and resilience, it involves adaptation diagnostics related to progress, readiness, gaps, enabling conditions, planning and fiscal aspects, and it uses indicators. She noted that transformational change does not always require significant finance, but can also be achieved through incremental change. Finally, she highlighted the

World Bank's resilience rating system, which encourages investment projects to consider climate risk and adaptation, in particular in low-income countries and SIDS.

- 34. The representative of AfDB emphasized the need for robust NDCs, NAPs, long-term low-emission development strategies and adaptation communications to communicate national adaptation needs. He noted that while the Paris Agreement⁹ called for balanced investments in mitigation and adaptation, finance still suffers from a mitigation bias, and adaptation remains predominantly publicly funded. To address the latter challenge, AfDB has been working on an adaptation benefits mechanism, which enables private sector entities in developing countries to access capital markets through the generation and sale of certified adaptation benefits. He outlined how the mechanism enables consumers, corporations and donors to contribute to adaptation by signing purchase agreements for the certified adaptation benefits and suggested that it could be considered under Article 6, paragraph 8, of the Paris Agreement and be supported by multilateral development banks (MDBs).
- 35. The representative of IFAD described its loans to countries and its main activity of providing loans for adaptation to smallholder farmers. IFAD aims to provide 40 per cent of its loans for climate efforts next year, and 90 per cent of its climate finance has been adaptation-oriented since 2012, with a particular focus on low- and low-middle-income countries. To understand how resilience is increasing, IFAD has a methodology aimed at understanding the consequences of its portfolio and the increase in resilience as a result of that support. The methodology indicates a 13 per cent increase in the recovery ability of people supported. Similarly to other panellists, she highlighted the lack of a pipeline of bankable adaptation projects which could attract private sector investments, in particular in low-income countries. Finally, she outlined how IFAD works with African countries to consider how sovereign and non-sovereign lending could create such pipelines. For example, a new effort with the Presidency of the twenty-seventh session of the Conference of the Parties (COP) and several private sector entities aims to create resilience credits that can leverage various finance solutions and create incentives for smallholder farmers and financial institutions to cooperate in the area of resilience.
- 36. After the initial interventions, the moderator asked the participants to elaborate on the common metrics they use to measure adaptation and on any work among financial institutions to harmonize methods and indicators.
- 37. The representative of the World Bank highlighted the ongoing coordination of methods for co-benefits and finance, and the World Bank's quantified resilience rating system that it seeks to discuss with other MDBs. She also explained that its above-mentioned diagnostic tool is based on pillars and principles of good adaptation (taking into consideration elements such as sustainable development, inclusion and eradication of poverty), is consistent with IPCC sectors, uses about 160 quantitative and qualitative indicators and considers process, outputs and outcomes. She also emphasized that while consistent frameworks are helpful, national situations are very different, and that perhaps the GGA framework can help to address that challenge. She also highlighted the importance of qualitative assessments, which, however, involve difficulties in terms of standards of evaluation, as well as monitoring and tracking over time.
- 38. The representative of IFAD highlighted its observer status in the MDB group and how IFAD uses the methods of MDBs to measure climate finance. However, she also highlighted that these methods focus on ex-ante information, and a greater focus on ex-post situations would be needed to understand the extent to which adaptation is taking place. She added that both qualitative and quantitative data can help measure the ability to respond, that it is important to measure progress at the community level, and that this can be followed by a meta-analysis to aggregate the information. The operating entities of the UNFCCC Financial Mechanism, international finance institutions and MDBs can help by coordinating the work to build indicators and by involving the private sector in adaptation.
- 39. The representative of AfDB highlighted the need for transparency in measuring and reporting to understand the return on invested money, but also emphasized that relying too much on targets can create wrong incentives for investors. He also noted that many things

⁹ Paris Agreement, Article 9, para. 4.

can be measured by monitoring inputs and outcomes, such as the expansion of mangrove coverage, and explained that AfDB reporting involves the finance from purchase agreements, additional resources mobilized by developed countries, as well as narratives on the benefits of finance.

- 40. The representative of the GCF described a platform and workshops to exchange information on methods and indicators among portfolio managers. In terms of harmonization, he emphasized that each fund has its own modalities, so harmonization is not easy, but that it helps them to engage on common indicators and methods. The GCF is in the process of preparing a results handbook, which will consider methods in relation to indicators and provide guidance on impact measurement for financial entities.
- 41. The representative of the AF described the AF framework, which is based on five indicators aggregated on an "onion basis". The AF is working on developing baselines to enhance the accuracy of results and the tracking of co-benefits (e.g. on health and biodiversity), and on expanding the provision of final project evaluations to countries and considering fragile and conflict-affected countries.
- 42. The representative of the GEF emphasized that the ways to measure efforts relate to being flexible to country needs. Priorities are evolving, with an increasing focus on transformational adaptation in the context of the GGA, as well as on private sector engagement, a whole-of-society approach and the role of local communities, indigenous peoples, youth and other stakeholders. He noted that when priorities change, measurement issues also need to be reconsidered. To reflect such change, the GEF has added co-indicators for their frameworks for measuring adaptation efforts, for example related to SIDS, the private sector and gender aspects.
- 43. In the discussion, participants were interested, inter alia, in the views of the panellists on the possible targets under the GGA framework, including specific articulations of a target, as well as on how to design them. The representative of the GCF emphasized that the development of targets is a Party-driven process, that universal targets might be constrained by varying national priorities, and that the guidelines for the implementation of NAPs currently being developed by the LEG can be relevant in this regard. The representative of AfDB, while acknowledging the importance of measuring progress and reporting outcomes transparently, cautioned against the use of targets that are centred around, for example, maximizing the number of people who benefit or the number of hectares that have been made resilient, as they may unintentionally introduce bias into areas where project developers should invest to maximize the yield, and this would disadvantage countries with a low population density.
- 44. In response to a question on how to report on the 50–50 balance between mitigation and adaptation finance, the representative of the GCF responded that the balance is measured in grant-equivalent terms. While nominal funding tends to be higher for mitigation, it is less concessional, while adaptation involves mostly grants. For cross-cutting projects, information on the balance is provided by the accrediting entities.
- 45. One participant enquired about the success criteria used by the AF and the GCF, and whether fairness, allocation and accessibility could be used as metrics. The representative of the AF highlighted the success criteria of funding provided as grants, and the representative of the GCF outlined, in the context of understanding success, the new GCF Strategic Plan, which is aimed at simplifying access to funding, and promoting early warning systems and more direct access to funding. In addition, the representative of the World Bank emphasized that the World Bank has met the 50–50 target and prioritized low-income countries.
- 46. There was also a question about lessons learned, in particular in relation to methods, that could inform the work on the GGA. The representative of the GCF highlighted the difficulties with engaging the private sector; the representative of the AF emphasized the challenges with aggregation and noted that some reporting challenges are being addressed by its project implementation facility; and the representative of AfDB outlined how most private sector adaptation projects in Africa are too small to access funds.
- 47. Participants also asked how the outcomes of the GGA work programme and the GGA framework could help the work of the financial institutions. In response, the representatives

of the AF, the GCF and the GEF highlighted their readiness to serve any mandates from the COP and the CMA, and it was noted that the general priorities of the funds are consistent with the GGA and ongoing UNFCCC discussions. However, it was also emphasized that the funds can only use the financial resources that they receive, and that an ambitious outcome on the GGA can help countries to assess and prioritize needs and mobilize further finance.

- 48. Participants also enquired about the integration of the private sector into adaptation, in particular how climate funds can help de-risk investments in adaptation, and what targets and indicators are being used to measure private sector participation. The representative of the GEF described a programme oriented towards small and medium-sized enterprises to share risk and help projects to mature, and the representative of the World Bank highlighted that the GGA discussion can articulate indicators for outcomes that could attract private sector funding. In terms of existing indicators, the representative of the GEF noted that, currently, projects involving the private sector are designed on a case-by-case basis.
- 49. In addition, participants were interested in methods for addressing the quality of plans, the kinds of projects that are part of the AF innovation window, whether the funds track results by the age of supported people, and how remittances could help with adaptation finance. The representative of the AF highlighted that its innovation window is new and evolving, and that results are not yet disaggregated by age (though gender-disaggregated information is being collected).

B. Breakout group discussions: developing the framework for the global goal on adaptation

50. Parallel to, and informed by, the three plenary sessions, the workshop included three breakout group discussions that considered several questions related to the design of the GGA framework, as well the potential input from the GGA work programme to the GST. It was noted that the breakout group discussions provide opportunities to exchange and advance understanding of different views on developing the GGA framework and that the discussions do not represent consensus on the content shared.

1. Vision for the framework and the requirements for achieving that vision

- 51. The first breakout group session focused on the purpose of the GGA framework. In the session, the participants were organized into three subgroups to discuss their optimal vision for adaptation by 2040, as well as the elements required to achieve that vision.
- 52. Regarding the first question (a 2040 vision for adaptation) the discussions highlighted in particular the following non-exclusive options for the components of that vision. It was emphasized that these components do not constitute areas of convergence at this stage, and that decision 3/CMA.4 also outlines the agreed purposes of the GGA framework. The vision components identified were the following:
 - (a) Adaptation is approached in a truly global fashion;
- (b) The GGA will add value and enable mainstreaming of adaptation into all sectors and the SDGs;
- (c) Implementation of adaptation will be universal, governance is robust enough to ensure adequate adaptation response, adaptation protects development from disasters, the world is prepared for cascading and cross-border risks, and investments are climate-proofed;
- (d) Communities, societies, economies and the global commons are climate-resilient and have the required adaptive capacity and reduced vulnerability in a world that has warmed by 1.5 °C, with risks reduced to the 2025 level;
- (e) There is significantly less or no loss and damage, and the number of people impacted is being reduced;
- (f) The people and the planet are on a regenerative pathway, governance enables harmony with nature, and investments for nature-based solutions are robust;

- (g) Infrastructure, cities and coastal zones are resilient, and access to food is universal;
- (h) Life thrives in spite of change, and the well-being of people and the planet is ensured even in the face of higher risks. All people have stable lifestyles and can plan their children's future, and there is a general awareness that well-being and inclusion require a climate-neutral world;
- (i) Adaptation is fully funded, and adaptation finance is adequate (e.g. quadrupled), with risks and needs addressed interconnectedly. As a result, every person and community has the resources to thrive in a changing climate and can access transformational adaptation. In particular, the most vulnerable and marginalized groups are supported with inclusive, context-specific and flexible finance;
- (j) Adaptation ensures intergenerational and gender-based equity, involves strong youth participation, and ensures the well-being and social resilience of children;
- (k) Impacts are observed systematically, and developing countries have the data needed for adequate adaptation response.
- 53. In the exchanges on the elements required to achieve the vision components outlined above, the breakout group discussions highlighted in particular the following points:
 - (a) Determination and political will are needed to achieve the vision;
- (b) Global prioritization of adaptation, accompanied by emission reductions sufficient to keep the adaptation space open;
- (c) Expedient use of the GGA framework as a tool to help countries and steer multilateral considerations;
- (d) Narratives that speak to different people and parts of society, including enhanced political messaging;
 - (e) Use of best available science and the right policy instruments;
- (f) Availability of resources for the most vulnerable, including through means of implementation, in particular climate finance to support poor countries and all levels of governance. This would be facilitated by finding common ground to discuss finance through the reform of global financial institutions, as well as by enhancing wealth redistribution and universal social protection;
- (g) Enhanced knowledge, data and climate monitoring systems, as well as impact assessments that enable an understanding of impacts and how they affect social groups;
- (h) Stronger monitoring and evaluation systems that involve qualitative and other indicators;
- (i) Application of the latest digital technology, including artificial intelligence and international databases of adaptation technologies;
- (j) Enhanced target-setting, which involves articulating clear and specific shortand medium-term goals, nationally compatible targets that are connected with global targets, targets for increased resilience by 2030, as well as targets covering quantitative and qualitative aspects of adaptation;
- (k) Robust plans and policies, in particular NAPs and local policies, as well as the implementation of those plans and policies;
- (l) Better collaboration, policy coordination and governance between the global, national, regional and local level based on a whole-of-government approach;
- (m) Implementation of actionable and country-specific transformational adaptation approaches;
- (n) Integration of stakeholders through broader, inclusive and cooperative participation in governance, consideration of rights and knowledge of indigenous peoples and local communities, community-based adaptation, and better integration of the private sector;

- (o) Climate-proofing the SDGs and their successor frameworks;
- (p) Consideration of transboundary impacts, mitigation-adaptation linkages, climate-induced displacement and human mobility, as well as the links between the climate, and peace and security.
- 54. In addition to identifying the specific vision points and requirements for reaching that vision, participants also emphasized the importance of keeping the list of elements open, of making the framework and its outputs understandable for different user groups, and of distinguishing between the overall vision and its components. In addition, one group emphasized that not all aspects of the GGA will fit into one policy instrument within one country, and thus implementation is likely to involve multiple instruments.

2. Stakeholders and their roles within the framework for the global goal on adaptation

55. The second breakout group session focused on the various stakeholders involved in the GGA framework and their specific roles. For the discussion, the participants were divided into three groups to identify the users and beneficiaries of the framework, the roles of those different actors, and how they interact with and within the framework. Table 1 reflects the main stakeholder groups identified by the participants, as well as their suggested roles within the framework.

Table 1
Stakeholders and their roles within the framework for the global goal on adaptation

Stakeholder	Role(s) within the framework
National governments	 Creating enabling environments Guiding data generation and statistical analysis Coordinating efforts throughout the adaptation policy cycle Conducting risk assessments Developing policies and plans in line with the GGA framework Integrating adaptation into policies Implementing adaptation Prioritizing budgets, soliciting funds and providing support Taking stock of initiatives and baselines Monitoring and evaluation, and reporting Communication
Sector-specific ministries	 Connecting sustainable development and resilience Using the GGA framework as a reference to integrate adaptation into policies
Subnational and local governments	 Providing input to the GGA framework development Ensuring the inclusivity of policy processes Planning and implementation Monitoring and evaluation, and reporting Communication
International and humanitarian organizations	Information-sharingFinance, technical assistance, capacity-building and policy advice
Development partners	 Using the GGA framework as a common ground to agree on how to lead different streams of adaptation
Regional agencies	- Sharing knowledge

Stakeholder	Role(s) within the framework
Financial institutions, including MDBs and operating entities of the UNFCCC Financial Mechanism	 Providing financial support to governments Developing strategies for the disbursement of funds
UNFCCC	- Providing guidance for the adaptation aspects of the new collective quantified goal on climate finance
UNFCCC constituted bodies	Sharing informationProviding technical assistance
Civil society and non-governmental organizations	 Providing input to framework development Holding governments accountable Advocating action Translating between the local and global level Sharing information, communication Helping assess framework impacts on socioeconomic parameters
Media organizations	- Reporting and communicating on adaptation needs and efforts
Women	Providing knowledge and gender perspectivesCommunication
Youth and children	- Communication
Indigenous peoples	- Sharing information, knowledge, values and wisdom
	- Communication
Local communities	- Determining priorities
Other vulnerable groups and rightsholders	- Communication in relation to impacts of policies
Private sector and product developers	Sharing technical knowledge (standards, best practices)Providing capacity-buildingImplementing policies
Educational bodies and schools	- Preparing young people for climate risks and uncertainty, and educating them on adaptation actions
Research community and universities	 Conducting research towards identified gaps Sharing information, developing methods, generating knowledge Supporting processes to define targets and indicators
Faith actors	- Information and knowledge sharing
Foundations and private funds	- Providing means of implementation to support the GGA framework

56. In addition to identifying the specific users and beneficiaries of the GGA framework, as well as their respective roles, participants highlighted several broader questions related to the allocation of roles. For example, it was suggested that the roles of stakeholders within the framework could be characterized through five functions: signalling, accountability, means of implementation, standard-setting, and monitoring, evaluation and learning. It was also highlighted that those roles change during the development and implementation of the framework. For example, while governments are the likely main stakeholders, non-governmental organizations have the role of providing inputs to the design of the framework;

however, once the framework is set, they would be more involved in its implementation, and each element of the framework could involve dedicated specialists. It was also emphasized that the framework does not mean the same thing to everyone and/or all stakeholders, because of the different capacities and contexts of countries and stakeholders. For example, countries with higher capacity are able to be guided by national prioritization, while less capable countries might benefit from a stimulus from the GGA framework. In addition, it was noted that it was difficult to identify stakeholders since the framework is not yet ready, given that the roles of stakeholders depend on the design and functionalities of the framework. Some questions in this regard were: who delivers the functions of the framework, what time frames are considered, how the work on the GGA is connected with the global stocktake, which stakeholders are relevant at which stages of the adaptation policy cycle, and how stakeholder involvement in other regimes can inform the work on the GGA framework. Finally, it was suggested that the framework could play a role in facilitating adaptation actions in areas where there is no national jurisdiction, such as the ocean.

3. Identifying specific targets and indicators for the framework

57. The third breakout group discussions focused on the specific targets and indicators that would be relevant in the development of the GGA framework. To discuss these, participants were divided into three groups to discuss (1) the role of targets and indicators in the development of the framework; and (2) what targets and indicators are relevant to the assessment of adaptation and can be aggregated from the national to the global level on the basis of national reports. Table 2 captures the views expressed by participants on these two issues.

Table 2 Identifying specific targets and indicators for the framework for the global goal on adaptation

Q1: What are the role of targets and indicators in the development of the framework Q2: What targets and indicators are relevant and can be aggregated from the national to the global level?

Broad purposes:

- Operationalize the framework/define the GGA
- Generate political will, focus and visibility, and ensure equity
- Enhance coherence and provide direction
- Contribute to reducing climate risk
- Clarify roles and responsibilities

Enhancing action and support:

- Enhance/galvanize/catalyse action and support
- Guide (transformational) adaptation across dimensions and themes
- Facilitate prioritization of actions
- Define baselines
- Translate cross-cutting considerations into specific targets
- Capture synergies (e.g. between the GGA and the SDGs and/or national actions) and 100% access to climate services co-benefits (e.g. in relation to mitigation and/or loss and damage)
- Drive funding and mobilize support (finance, technology and capacity-building)
- Identify investment priorities
- Ensure that funds get to those in need
- Help attract private sector investments

Accountability and transparency:

- Help develop monitoring and evaluation systems
- Monitor and evaluate progress and pace of adaptation (national); measure actions towards the GGA (global); assess progress over time; guide the development of monitoring and evaluation systems
- Provide input to the GST
- Monitor effectiveness
- Understand the state of adaptation
- Help share lessons, identify gaps and promote learning

General types of targets and indicators:

- Cross-cutting targets and indicators
- Qualitative and quantitative targets and indicators
- High-level global targets and corresponding specific indicators
- Use existing SDG, CBD and Sendai Framework indicators
- Targets and indicators defined through top-down and bottom-up processes
- Process and outcome targets and indicators
- Targets and indicators linked with the +1.5 °C limit and climate scenarios

Policy-/process-focused targets and indicators:

- Based on NAPs and NDCs (e.g. number of NAP mandates, new recommendations, or sectoral plans)
- Set of indicators for each part of the adaptation policy cycle
- 100% of countries have a specific policy within a specific time frame
- 100% coverage of early warning systems by 2027
- Integration of adaptation plans with local plans
- Indicators that reflect the levels of global and regional cooperation

Thematic/sectoral targets and indicators:

- Thematic targets or indicators related to, for example, sanitation, health, food security, ecosystems
- Number or percentage of people in a specific sector with improved adaptive capacity
- Forestry-related indicators from national monitoring systems
- Water-related targets (e.g. access to climate-resilient services, systems built using climate risk analysis, upgrade targets, proportion of recycled wastewater)
- Consider indicators that reflect transboundary aspects

Finance-related targets:

- Flows and accessibility of finance, including domestic and international finance **Stakeholder-specific targets/indicators:**
- Number of people affected by climate events
- Percentage of NAPs that are gender- and child-responsive
- Targets and indicators that use gender-disaggregated data
- Targets and indicators that reflect the role of indigenous peoples
- Number of people that depend on nature for their livelihoods

Q1: What are the role of targets and indicators in the development of the framework	Q2: What targets and indicators are relevant and can be aggregated from the national to the global level?
	- Number of people with enhanced adaptive capacity by a specific year
	- Inclusion-related targets and indicators

- 58. In addition to the specific responses to the two guiding questions, participants highlighted several broader considerations and principles related to the identification of targets and indicators. It was noted that targets and indicators can have different purposes, with some aimed towards creating awareness, while others drive learning and enhance action, and that it would be important to consider those purposes as well as the advantages and disadvantages of different targets and indicators prior to identifying them. Participants also emphasized that the process of identifying targets and indicators should build on and complement existing targets and indicators from other frameworks (including the SDGs, the Sendai Framework or the work of the high-level champions) and address gaps within them. To this end, the work should begin by reviewing the existing frameworks and gaps within them. Another approach could be to analyse different climate hazards and define targets and indicators in relation to them. The identification process could be guided by agreed principles and selection criteria, and could benefit from IPCC support. It would be essential that targets and indicators are designed in a way that really helps to understand the levels of success of adaptation.
- 59. Broadly speaking, the targets and indicators could be differentiated into political and technical ones, balanced between output and process, organized hierarchically into a structure of high-level and more detailed ones, and/or identified in relation to the components of the adaptation policy cycle (though with flexibility for countries to decide how to apply them). One specific approach suggested would be to use the themes of the GGA work programme as targets and to link indicators to the adaptation policy cycle. It was further suggested that the adaptation policy cycle should be combined with the elements of the GGA set out in Article 7, paragraph 1, of the Paris Agreement. In addition, it was emphasized that the indicators should be time-bound, flexible, dynamic, inclusive, non-discriminatory, linked with mitigation ambition and accommodate local-level adaptation and information from multiple sources. Flexibility was considered particularly important in the light of the fact that countries have different sectoral and thematic priorities when it comes to adaptation. It was also noted that aggregation has limitations and can mean different things to different groups, and it was suggested that it should be done by age, gender and/or social group.
- 60. Participants also highlighted that the targets and indicators should not constitute additional burdens for developing countries this could be avoided, for example, by building on existing data and metrics. They should also not involve absolute quantified parameters that would disadvantage small or sparsely populated countries this could be avoided by using proportional rather than absolute quantitative indicators. It was also noted that the number of targets and indicators should not be excessive, they should not be imposed on countries, and they should not distort the information provided.
- 61. In order for the targets and indicators to function properly, participants highlighted that the work should identify roles and responsibilities for applying them (in other words, "who owns the GGA targets and indicators?"), that sufficient support should be available to developing countries to use them, and that they need to be defined in ways that ensure local data availability and capacity to produce related information. Information related to the targets and indicators could come, in particular, from national reports submitted to the UNFCCC, but also from non-governmental sources.

4. Inputs to the global stocktake

- 62. The final topic considered in the breakout group sessions was the input of the GGA work programme to the GST. Participants were requested to discuss their expectations of the GGA contribution to the GST, the feasibility of different options, the possibility of using existing materials as a basis of inputs, and the viability of using the four stages of the adaptation cycle to structure inputs.
- 63. While participants agreed that there is a natural substantive connection between the GGA work programme and the GST due to the mandate for the GST to review the overall progress made in achieving the global goal on adaptation, there was some uncertainty about how this process can still contribute given the respective time frames of the GGA work programme and the GST. Some considered that the GGA work programme is an ongoing process that would not finish in time to provide a meaningful contribution, and that inputs could also be provided to the next GST beginning in 2026. However, others were of the view

that the GGA work programme has generated a lot of knowledge, which is captured in particular in the workshop reports and has not yet been considered under the GST, and that there would be value in introducing it somehow.

- 64. Specific suggestions on providing inputs to the GST included the following:
- (a) Thematically, it was suggested that the elements of decision 3/CMA.4 could be a helpful way of structuring inputs to the GST and could provide orientation for the GST process; the inputs could be organized around the adaptation cycle and/or the elements of Article 7, paragraph 14, of the Paris Agreement; or an input could be organized from the perspective of adequacy and effectiveness of adaptation. The adaptation policy cycle could be used as an analytical lens that enables challenges, gaps and enabling tools to be pointed out, though it was also highlighted that some countries do not have the capacity to follow the adaptation cycle in textbook fashion. It was further emphasized that inputs should highlight the different levels of progress between mitigation and adaptation, including with regard to the formulation of targets, as well as the challenges related to understanding the situations of vulnerable groups;
- (b) In terms of the modality of providing inputs, it was suggested that an input could be provided in the form of a technical report. Such a report could be produced by the secretariat and reflect, among other things, the elements of decision 3/CMA.4, the exchanges and peer-learning during the GGA work programme and/or the thematic areas considered by the GST. The report could either cover the first six workshops and be submitted in the near future, or capture the discussions of all the workshops and be published in October 2023. The input could also be captured in the annual report on the GGA work programme. It would inform the consideration of outputs stage of the GST;
- (c) Regarding the basis of inputs, it was also highlighted that multiple documents contain information relevant to this work and different parts of the adaptation policy cycle. These include national reports such as adaptation communications, NAPs, NAP Expo reports, NDCs, national communications and biennial update reports, submissions, reports published by organizations, such as the Sixth Assessment Report of the IPCC and the United Nations Environment Programme Emissions Gap Report, as well as information from the Sendai Framework and SDG processes. It was also suggested that a GST input could be based on the information contained in such documents on assessments, planning and implementation, finance and gaps. The question is the extent to which such information is already informing the GST, and what value the GGA work programme would add. For example, these reports contain information that could be organized around the adaptation policy cycle, and thus provide a basis for an input to the GST.
- 65. It was also suggested that there could be a mutually supportive dynamic between the GGA framework and the GST: on the one hand, the GST could synthesize information on the GGA, identify gaps (e.g. in terms of finance, monitoring and evaluation, and data), articulate baselines for future assessments, highlight commonalities and differences, and recommend further steps to scale up adaptation ambition, but also to enhance the work on the GGA. The GST could also organize its consideration of adaptation around the themes of the GGA work programme because they provide an important lens for understanding opportunities. On the other hand, the GGA framework could evaluate knowledge gaps in the GST process and/or provide context-specific data to contribute to the aggregation of information by the GST.

C. Closure of the workshop

66. The closing remarks were delivered by the moderator on behalf of the SBI Chair. The moderator thanked the presenters, moderators and participants for the informative workshop. She highlighted the importance of starting to explore points of convergence and divergence, and to continue taking a structured approach to the work. She also encouraged participants to focus on areas of consensus in the upcoming SB 58 negotiations, and to work with each other to bring the collective spirit of the workshop to the negotiations. Finally, she noted that the Chairs of the subsidiary bodies are always ready to assist with the work, when needed.

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