

## **Summary of the fifth workshop under the Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation: Changing mindsets and worldviews towards transformation in adaptation, with the inclusion of indigenous peoples’ wisdom, values and knowledge and consideration of cross-cutting issues included in paragraph 20 (g) (e) of decision 3/CMA.4**

24 April 2023

### **I. Introduction**

#### **A. Mandate**

1. The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement, 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 be carried out jointly by the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation. 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.<sup>1</sup>

2. SB 56 requested the secretariat, under the guidance of their Chairs, to prepare a summary of each workshop, in the context of preparing a single annual report on the workshops for consideration by the CMA at COP 28.<sup>2</sup>

3. CMA 4 welcomed 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.<sup>3</sup> The themes for this fifth workshop, and the subsequent workshops were outlined in the SB Chairs’ information note, published on 8 February 2023.<sup>4</sup>

#### **B. Proceedings**

4. The fifth workshop under the work programme<sup>5</sup> was held in a hybrid format from 20 to 22 March 2023 and broadcast live on YouTube,<sup>6</sup> with more than 190 registered in-person and virtual participants.

5. The workshop opened with welcoming remarks from the Chair of the Subsidiary Body for Scientific and Technological Advice (SBSTA), Mr. Harry Vreuls, and Her Excellency Khadeeja Naseem, Minister of State for Environment, Climate and Technology, Maldives.

6. Participants considered key themes of transformational adaptation, indigenous peoples’ contributions, mindset change and the development of a framework for the global goal on adaptation. Throughout the workshop, a range of modalities were utilized, including expert presentations,<sup>7</sup> question and answer sessions, panel discussions and interactive

---

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

<sup>2</sup> As per decision 7/CMA.3, para 16.

<sup>3</sup> Decision 3/CMA.4, para 20.

<sup>4</sup> Available at <https://unfccc.int/documents/626532>

<sup>5</sup> The concept note and agenda for the workshop and all presentations are available at <https://unfccc.int/event/5th-workshop-glasgow-sharm-el-sheikh-wp-gga>.

<sup>6</sup> See <https://www.youtube.com/playlist?list=PLBcZ22cUY9RIUjVIegrhcMDYHs227TxBc>.

<sup>7</sup> Available at <https://unfccc.int/event/5th-workshop-glasgow-sharm-el-sheikh-wp-gga>.

exercises in breakout groups. The workshop facilitated full virtual participation across all modalities.

7. The numerous sessions and breakout groups were moderated by Ms. Shella Biallas (United States), Ms. Natasha Banda Museba (Indigenous Peoples representative from Zambia), Ms. Kulthoum Motsumi (Botswana), Mr. Luke Millar (Australia), Ms. Morgane Chioccha (United Kingdom), Mr. Binyam Yakob Gebreyes (Senegal), Mr. Manfred Kholbach (Austria), Mr. Thibyan Ibrahim (Maldives), Mr. Harry Vreuls (Chair of the SBSTA), and H.E Khadeeja Naseem (Minister of State for Environment, Climate Change and Technology, Maldives). On the third day, opening remarks were provided by H.E Nabeel Munir, Chair of the Subsidiary Body for Implementation.

8. The workshop concluded with closing remarks from the Chair of the SBSTA, Mr. Harry Vreuls, UN Resident Coordinator Office, Mr. Enrico Gaveglia, and Her Excellency, Khadeeja Naseem, Minister of State for Environment, Climate Change and Technology, Maldives.

## **II. Summary of discussions**

### **A. Session 1: Transformational adaptation**

9. The first session focused on conceptualizing transformational approaches, which the Sharm el-Sheikh Implementation Plan urged Parties to take. The focus of this session was on how transformational adaptation can be defined, what makes it distinct, what measures might constitute it, and how it could be assessed. The session kicked off with four presentations. First, three representatives of the Intergovernmental Panel on Climate Change (IPCC) presented definitions, conceptualization and examples of transformational adaptation. Second, a representative of the Convention on Biological Diversity (CBD) outlined related work under that convention, as well as synergies with adaptation. Third, a representative of the Climate Investment Funds (CIF) provided information on their framework to conceptualize transformational adaptation and integrate it in project design, and, fourth, a representative of the United Nations Foundation (UNF) illustrated a second framework for transformational adaptation.

#### **1. Defining and conceptualizing transformational adaptation**

10. The IPCC representatives described how its Working Group II identified several attributes of transformational adaptation, including that it involves long-term changes in societal worldview, mindsets and power structures, as well as movements from one state to another within different domains, and that it requires considerations of equity and marginalized communities. Transformations can occur at different speeds, depths, scopes, and levels of governance. Those pursuing transformational adaptation should choose pathways appropriate for their national situations. The representatives also differentiated between incremental and transformational adaptation, but emphasized that the two are connected and are part of a continuum within which incremental adaptation can evolve into transformational adaptation.

11. They also presented possible examples of transformational adaptation, including changing land-use rules, replanning water use, regenerative agriculture, converting agricultural land into salt marshes for coastal protection, and developing natural breakwaters. Mindset changes were identified as a key component of transformational adaptation. The nascent character of transformational adaptation was emphasized, illustrated by the fact that it has not been extensively documented or integrated into monitoring and evaluation arrangements. However, the authors highlighted potential indicators for it; for example, the quality of interactions could be documented to understand who participates in decision-making, what mechanisms lead to decisions, and how indigenous knowledge is being included. Alternatively, countries could also use the IPCC's "burning embers" figures to self-assess and project how adaptation goals relate to changes in temperature. The authors suggested specific measures that could help move towards transformational adaptation, such as moving from sectoral towards systemic approaches, nexus-based approaches (e.g. between

adaptation and the SDGs), considering trade-offs, and joint adaptation-mitigation efforts. Further steps towards transformation could include extending equitable and gender-sensitive distribution of adaptation investments and opportunities (e.g. to marginalized communities) and drawing on indigenous knowledge and practices (e.g. in relation to agriculture, water conservation and relocation).

12. Participants inquired about the definition of transformational adaptation, as well as about the difference between incremental and transformational adaptation. In response, it was emphasized that, while transformational and incremental adaptation differ in terms of speed and scope of efforts, there are no universally agreed definitions or fully representative examples of transformational adaptation, and that the two exist on a continuum along which adaptation actions can be conceptualized. Participants also asked how the concept of transformational adaptation was developed, and whether there is empirical evidence that indicates that it would be necessary to pursue it. The IPCC authors emphasized that currently incremental adaptation is not working, often leads to maladaptation and higher vulnerability, and tends to lack the inclusion of different types of knowledge. They also highlighted that incremental adaptation will not be enough to keep up with global temperature increase.

13. There were also questions about the differences between, as well as strengths and weaknesses of, sectoral and systems approaches. The IPCC authors explained that sectoral approaches tend to ignore synergies and trade-offs, but that it is impossible to separate, for example, forests, water and agriculture, which is why the IPCC is moving from sectors to systems. In addition, participants were interested in the role of means of implementation in transformational adaptation (in particular, how support can be transformational, and what the scope of financial needs is for transformational adaptation), the applicability of transformational adaptation to small island developing states (SIDS) and other vulnerable countries, as well as the role of non-state actors in it.

14. The second presentation outlined the experience of, and challenges faced by the CBD, in the context of advancing work in setting a global 2050 vision, the Aichi biodiversity targets, national targets, research, and connections with the SDG process. But various indicators show that the world has yet to see positive impacts for species and habitats. Thus, it was highlighted that both process-orientated and impact targets are needed, and that having targets that are focusing only on the policy/process side can give a false impression of the ultimate impact on the ground. The presentation emphasized that progress would require greater collaboration, stakeholder integration, well-designed and well-communicated targets, stronger national plans, and support. It also outlined how the Kunming-Montreal Global Biodiversity Framework and its monitoring arrangements address these challenges through the identification of, inter alia, four global goals and 23 targets to 2030, a 2050 vision, support mechanisms and transparency arrangements. An inquiry was raised on how NAPs could best be linked to the CBD processes, and the representative highlighted that Parties are revising their nature-based strategies (NBS), the main implementation tool within the CBD by their COP 16, which presents an opportunity to identify complementarities. In addition, CBD has organized training sessions on NAP-NBS links.

## **2. Examples of approaches to conceptualizing, designing and implementing transformative adaptation**

15. The representative of the CIF provided an example of a CIF's Framework for Transformational Climate Action and Evaluation, which aims to operationalize transformational adaptation in a country-driven manner. Under this programmatic framework, countries can express interest, and the CIF then develops investment plans with stakeholders accordingly and supports the preparation of adaptation plans, such as NAPs. The CIF framework involves five potential characteristics of transformative adaptation:

- (a) The actions must be relevant to context and beneficiaries;
- (b) They must lead to systemic change, including in terms of changing power structures and enhancing communal participation;
- (c) They must accelerate the speed of change;

(d) They must be scalable along different dimensions (e.g. levels, policies, people, geography, level of understanding, and the public-private-continuum);

(e) They must be sustainable, involve no backsliding, and focus on evolving to integrate multiple stakeholders.

16. Participants asked about how efforts are evaluated under the CIF framework. In response, the representative highlighted three qualitative categories that can be used:

(a) Early signals (conditions created);

(b) Interim signals (change happening, outcomes not obvious);

(c) Advanced signals (transformation happening).

17. The IPCC complemented this by suggesting that societal shift can be measured by considering the quality of interactions with the most vulnerable.

18. The fourth presentation emphasized the importance of incorporating a transformational element into the work on the global goal on adaptation (GGA), ensuring political mandates for the work, and nurturing enabling environments. It outlined five features of transformational adaptation applied by the UNF. To qualify as transformational, adaptation must be:

(a) systemic, meaning that it is comprehensive, not piecemeal; whole-of-system instead of a quick fix; and comprises multiple reinforcing interventions;

(b) catalytic, triggering changes beyond the point of intervention through e.g. the establishment of new institutions;

(c) scalable, e.g. in terms of the number of people reached, but also in terms of depth and speed of change;

(d) inclusive, meaning that it must address root causes of vulnerability of communities;

(e) sustainable, both environmentally and by being enduring and institutionalized.

19. The representative highlighted policy, regulatory, social and behavioural areas as potential domains of transformational processes. In response to questions, the representative emphasized that the UNF framework can be applied at all levels and countries, including SIDS. Participants also asked where to start applying such a framework and emphasized that developing countries would need clear examples and systematic approaches to consider transformational adaptation approaches.

20. In the discussion, it was also highlighted that further clarity is needed on how to operationalize transformational adaptation, and that developing countries would require support to do so. In terms of potential measures to pursue transformational adaptation, participants highlighted nature-based solutions and community-based adaptation. Finally, they asked how the concept of transformational adaptation could be reflected in the development of the GGA framework and debated this connection further in session five.

## **B. Session 2: Indigenous peoples' leadership in transformational adaptation**

21. While session one identified how transformational approaches involve mindset changes, session two complemented this by illustrating how indigenous and traditional knowledge and practices provide options towards such change, in particular by offering possibilities to reframe the human relationship with nature. Indigenous, traditional and local knowledge is one of the cross-cutting considerations identified for the GGA framework. Panelists and discussants considered these complementarities from four main perspectives: first, how indigenous worldviews reflect a more profound and sustainable relationship with nature; second, how indigenous perspectives are being integrated into national adaptation arrangements; third, possible barriers and challenges to this integration of indigenous and local knowledge; and fourth, how they could be connected with the GGA framework.

## **1. Indigenous precedents for mindset change**

22. In terms of the human-nature relationship, a representative of the Kankanaey-Igorot indigenous group from Asia emphasized how transformational adaptation requires a mindset change from exploitation of nature to symbiosis with it, and how common indigenous values across the world involve establishing such a connection and can enable raising a new generation of stewards of nature. This can also reduce the risk of unsustainable change and maladaptation when implementing transformative approaches. In this spirit, panellists presented specific examples of how indigenous world views and knowledge are maintaining such a connection through a close and harmonious relationship with nature. An indigenous knowledge holder from Africa explained how her community does not separate people from nature, but rather connects the two by naming people after places, associating lineage with specific animals, and by organizing festivals that observe respect for nature. This way, nature and identity are integrated. Two representatives of the Maldives Authentic Crafts Cooperative Society described the making of traditional masks using natural dyes extracted from trees, leaves and roots, thereby maintaining a non-exploitative relationship with nature and illustrating the culture's embeddedness with it. In addition, a Maori indigenous knowledge holder from the Pacific presented the example of the Maori Kaitiakitanga, which considers nature as cosmological kin, sees people as related to animals and plants, attributes sanctity to natural resources, and involves an obligation to be a caregiver and custodian to nature and its components (such as water, trees, mountains and reefs).

## **2. Integrating indigenous perspectives in national adaptation efforts**

23. Session two also focused on how indigenous world views and knowledge can be integrated with national adaptation efforts. This was considered in particular from two dimensions: integrating indigenous perspectives into governance and encouraging specific indigenous practices or natural resource management.

24. The representative for Ecuador described how, in 1988, indigenous peoples and civil society produced a national constitution that recognized nature as a subject with rights, enabling a new type of jurisprudence, and creating an obligation for everyone to work towards the well-being of people and nature. National institutions, such as courts, are involved in the implementation of these principles, regulations (e.g. for land use) have been adopted accordingly, and indigenous peoples are a trusted source of best practices for adaptation projects. A representative of Canada presented its approach of engaging with First Nations as critical to transformational change. This involved soliciting input for its adaptation strategy, indigenous participation in meeting and advisory groups, and a leadership agenda which provides a path towards self-determined action by indigenous peoples. An indigenous representative from the Maldives described the impacts of climate change and coastal erosion on fisheries, and how nature-based solutions can help, while highlighting that such solutions require knowledge and data to be implemented properly. The representative of Fiji highlighted how they have included indigenous scholars in steering committees, and Marshall Islands described their arrangements for community-based conservation.

25. Participants also highlighted indigenous practices that have been particularly successful. In the Australian savannah, traditional fire management methods have been applied to ensure controlled burning of certain parts of vegetation during specific times of the day to prevent massive wildfires and to enhance carbon sinks. Indigenous carbon farming projects have been implemented with the support of the government and the Green Climate Fund. In Fiji, the government's policy of ensuring access to water for everyone is supported by traditional rainwater harvesting and groundwater recharge techniques that help enhance secure drinking water supplies. Finally, the representative of UNEP described how its adaptation portfolio has integrated indigenous knowledge and practices by mapping how local knowledge relates to early-warning systems and by using traditional approaches to develop gender sensitive adaptation measures.

## **3. Challenges related to integration of indigenous perspectives**

26. Participants also highlighted some barriers to the integration of indigenous knowledge, including that not all places recognize indigenous practices, some knowledge is sacred and not accessible, it is connected with rituals and languages unique to the

practitioners, or its dissemination creates risks of appropriation. Another challenge is that much of the knowledge is local, so linking the different levels (local, national and global) – and thus its global applicability – is subject to uncertainties. In addition, currently only 0.04 per cent of global climate funds goes to indigenous communities. But it was suggested that these limitations could be partly overcome by showcasing these practices, providing access to decision-making, integrating indigenous practices more deeply into adaptation planning and by using technology to amplify indigenous knowledge.

#### **4. Integrating indigenous perspectives into the framework for the global goal on adaptation**

27. In terms of integrating indigenous perspectives in processes related to the global goal on adaptation, it was suggested that the methods and indicators identified for the GGA framework should consciously integrate indigenous values and knowledge, and that the quality of interactions with indigenous knowledge-holders could serve as an additional indicator. It would be important to capture indigenous perspectives in the development of the GGA framework, which could involve input/information on how indigenous knowledge is being integrated at the national level, for instance, through participation and consultation. Canada described how indigenous peoples are already engaged in national-level processes related to the global goal on adaptation through participation in workshops and consultations. It was also suggested to work through entities like the LCIPP and the Adaptation Committee to develop baselines for the information available in NAPs and other documents on the roles of indigenous peoples and their knowledge. Another possible channel to integrate indigenous perspectives would be to consider their contributions in NAPs.

### **C. Session 3: Changing mindsets towards transformational adaptation**

28. Session three elaborated further possibilities of mindset change and transformational approaches, focusing on intergenerational and gender equity, social justice and human rights, private sector engagement as well as transboundary approaches, which were identified by decision 3/CMA.4 as areas of discussion. It opened with six presentations, which were followed by two breakout groups. In the kick-off presentations, a representative of the United Nations Children's Fund (UNICEF) outlined how transformational adaptation requires focusing on children; a presentation by the United Nations University Institute for Environment and Human Security (UNU-EHS) highlighted the importance of considering the global commons in context of the global goal on adaptation; a representative from the European Investment Bank (EIB) outlined how transformational adaptation is considered by multilateral development banks (MDBs); the presentation by the Mitsui & Co. Global Strategic Studies Institute in Japan elaborated on the potential roles of the private sector; the World Trade Organization (WTO) provided the international trade perspective; and a representative of Lesotho outlined approaches for transboundary river management in southern Africa.

29. UNICEF urged considering children in the work on the global goal on adaptation and transformational adaptation. UNICEF has developed a Children's Climate Risk Index, which indicates that children are at high risk of climate impacts, both in educational and humanitarian terms. However, transformation can be created by investing in young people and by providing climate-related services that reduce their vulnerabilities. The presenter outlined UNICEF's work towards this through partnerships on integrated water monitoring and a sustainability action plan, among other means. In response to questions, UNICEF outlined that it helps developing countries by supporting ministries of environment in mainstreaming policies that improve the resilience of schools, and that various case studies are available on this. Participants also highlighted that the GGA framework should ensure intergenerational equity by considering the special needs of children and by focusing on education, participation and human rights.

30. The presentation by UNU-EHS emphasized the need for a mindset change by focusing on adaptation of the global commons (such as the high seas, the atmosphere, Antarctica, outer space and cyberspace), which exist beyond national territories and jurisdictions. The representative highlighted, for example, that while 60 per cent of oceans are outside national

borders, only one per cent of them are protected, and overexploitation continues to increase global vulnerabilities, though the recent High Seas Treaty provides a positive signal. Unregulated outer space is similarly at risk of increasing and cascading space junk, which threatens satellite operations that are essential for adaptation. A global goal on adaptation should consider these commons, as their interconnectivity enables designing systems-based solutions that benefit everyone.

31. The representative of the EIB described the bank's efforts to finance transformational adaptation. She outlined how a mindset change is happening within multilateral development banks, which have moved towards a joint approach on adaptation finance since 2012 in terms of both supported sectors and financial products. Another mindset change at the EIB is the increasing focus on adaptation. It understands incremental adaptation to comprise small project-based adjustments aimed at climate-proofing sectors, while transformational adaptation is seen as efforts to reduce the causes of vulnerabilities and barriers, though there are variations and combinations in between. She provided examples of the bank's transformational adaptation projects, including several aimed at changing water conveyance systems in an African country, energy transmission in northern Europe, and the emergency services in a Mediterranean country. She emphasized that both incremental and transformational adaptation are needed, and that transformational adaptation required information, equity, inclusion, consideration of the needs of the most vulnerable, and robust metrics to understand the results.

32. Participants inquired how EIB and the MDBs are trying to close the imbalance between finance for mitigation and adaptation. In response, the presenter mentioned that many MDBs are committed to increasing adaptation finance (for example, the African Development Bank and the World Bank have a 50-50 commitment, while EIB aims to triple adaptation finance), but also emphasized that levels of support depend on the needs of the countries. A related question was about the options available to SIDS that cannot apply for loans, to which the presenter highlighted that grants and concessional loans are partly available to SIDS. Another question was about what requirements countries need to meet when applying for transformational adaptation projects. The presenter responded by highlighting that while transformational adaptation is a new concept, MDB requirements tend to relate to evidence, assessments, relevance, standards and safeguards. In response to further questions, the presenter described how the bank aims to de-risk investment and support SMEs, and how it supports transboundary strategies that can evolve into specific projects.

33. The presentation by Mitsui & Co. Global Strategic Studies Institute outlined how businesses can provide risk management, and how transformational adaptation requires understanding business and behavioural change. Businesses are affected by extreme weather, and many are disclosing information on risks. The presenter described how such disclosure is expanding with the availability of International Financial Reporting Standards (IFRS) guidance for climate-related disclosures developed by the International Sustainability Standards Board, which also covers transitional and physical risks to assets. The methodology to evaluate risk involves screening of projects using climate models and topographical information. This is followed by defining relevant risk mitigation measures (including insurance and relocation), early warning systems, and monitoring. Public-private cooperation can be helpful because the private sector must consider clients and populations, and are able to relocate more easily. The private sector can provide solutions and increased tax revenue can increase adaptation funding. It can also provide information, including on risk, topography and weather, and provide investment solutions such as indexed insurance. The private sector also can interpret scientific information for users. So public, private and science need to cooperate – business and science develop solutions, and governments promote them. But it is important to consider how to share costs and benefits. Participants were also interested in how public and private funds could be better aligned, how businesses can contribute to reducing risks faced by vulnerable people, and how the private sector could be involved in adaptation in the absence of profit opportunities. The presenter elaborated that cooperation between businesses and local governments can assist in risk reduction (e.g. shelters in commercial buildings, understanding information, and forecasting services), and that improved economic conditions tend to create higher tax revenues and more adaptation funding.

34. The WTO outlined how trade helps reduce poverty on the one hand, but generates GHGs on the other, and is also impacted by climate change. Impacts include productivity loss, supply problems and transportation disruptions, which mean that manufacturing suffers, and transportation costs rise. But climate actions can enhance trade resilience, and trade policies can support climate efforts (countries with diverse exports are less vulnerable and have higher adaptive capacity because trade helps access to technology and resources). Trade cooperation can complement adaptation through cross-border spill-over and predictable environments for technology development and use. Several trade agreements have climate dimensions, e.g. identification of relevant issues, provisions for natural disasters and fast release of goods in emergencies. WTO promotes reducing barriers to adaptation technologies and quick processing of emergency goods and has received a growing number of trade-related adaptation policies. The presentation also highlighted the Aid for Trade disbursements, which involve, inter alia, finance for projects on climate-resilience infrastructure (roads and ports). In the discussion, the presenter explained that the fact that much less Aid for Trade disbursements go to adaptation comes down to WTO member states deciding on the allocation.

35. The final presentation by the representative of Lesotho focused on the cooperation between Lesotho, South Africa, Namibia and Botswana on transboundary water resources. Lesotho sits upstream of rivers that provide water to South Africa and Namibia. An organization called OraSeCom provides a coordination platform to manage the shared river system. The Maluti-Drakensburg Transformation Conservation and the ReNoKa Movement provide for integrated catchment management to reduce land degradation and to restore wetlands. The countries also operate a regional early warning system that shares information about events upstream with downstream countries. Another tool used in this transboundary cooperation is forecast-based financing, which provides payments before events occur. It is important to build capacity to use early warning systems, reach out to indigenous peoples, communalize the problem, and integrate weather and climate in daily plans.

## 1. Breakout group 1

36. The first breakout group considered two questions. The first was: “How might we achieve a change in mindsets to include intergenerational and gender equity and social justice considerations in designing the framework and achieving the GGA?” The discussions in the group illustrated that, to include the above considerations, the GGA framework must be bold and transformational (not incremental), involve mindset and systemic change, be guided by principles and a sense of collective responsibility, ensure that those principles are applied by decision makers, focus on future elements and long-term solutions, avoid maladaptation, and engage diverse groups and subnational actors. Such a framework, it was considered, should have inclusion, nature and future generations at its core. It should listen to and empower children and youth. It should also reflect and integrate indigenous, traditional and local knowledge, together with the best available science. Further, the GGA framework should involve a focus on livelihoods, in particular female-driven informal sectors, the inclusion of gender-oriented organizations, actions driven by gender-aggregated data, a whole-of-society approach, and quality indicators, and should put the most vulnerable at the centre. Finally, such a framework would need to consider human rights, inequalities, a just transition, discrimination and unjust distribution of power, inclusive policymaking and implementation, safeguards and redress mechanisms, and support to vulnerable groups.

37. The second question of breakout group 1 was: “How might we build connection between the evidence of transboundary climate risks and cascading climate impacts and transboundary climate risk management and action? How might the GGA inspire action and influence policy to advance transboundary climate risk management and transboundary collaborations?” Participants highlighted that transboundary adaptation requires a mindset change towards more interconnected thinking that goes beyond administrative boundaries and focuses on e.g. the integrity of nature, ecosystems and the global commons. The GGA framework can facilitate transboundary adaptation, for example, by enabling mainstreaming of transboundary considerations into adaptation, by involving transboundary organizations and by linking high-emitting places with highly-impacted places. To achieve this, the GGA framework should reflect the UNFCCC principles so that all countries contribute their fair share across borders. To strengthen transboundary adaptation, countries could develop

transboundary risk assessments, engage in knowledge exchange with other countries, and develop transboundary adaptation plans (e.g. by co-creating NAPs across borders), while ensuring that no maladaptation occurs. This could be supported by means of implementation, regional institutions, regional collaborative groups, private sector expertise, funds, resource pooling activities, regional scientific cooperation, transboundary early warning systems and standardized methodologies. Transboundary collaboration can be hindered by silos thinking in particular, but also by lack of information, but communication and shared experiences can help overcome these. Thus, concrete examples should be identified to highlight successes and benefits of transboundary adaptation and to bring about mindset changes. These could be disseminated through science communication, education, journalism and community representation, among other channels. In addition, transboundary cooperation would require a mindset change towards the consideration that “we are in this together”. Further lessons can be learned from the work of the CBD and the High Seas treaty, for example. Finally, the IPCC can provide information on methodologies for considering transboundary issues.

## 2. Breakout group 2

38. This group also considered two questions. The first question was, as in the first group: “How might we strengthen intergenerational and gender equity and social justice considerations in designing the framework and achieving the GGA?” Participants identified several barriers to such strengthening. These were seen as originating, in particular, in patterns of marginalization and non-inclusive governance structures, lack of gender-responsiveness and the exclusion of women from decision making and leadership, limited consideration and consultation of indigenous and local knowledge and voices in policymaking, as well as inflexible and centralized funding arrangements and subsidies that lead to maladaptation. Further obstacles were considered to result from patriarchal and elitist norms, top-down governance, giving attention only to scientific and government opinions, limited involvement of the private sector, and avoidance of responsibility for and lack of consideration of intergenerational equity. As possible ways of strengthening equity and social justice, participants highlighted, in particular, the importance of taking a bottom-up approach to equity, albeit within the context of a multi-level framework, following the common but differentiated responsibilities principle, stronger and more diverse stakeholder involvement in adaptation planning, including through the inclusion of women in decision-making, consideration of the most vulnerable (including migrants, migrant families and diasporas), focusing on the local level, and consultations with all community members. Other solutions included raising awareness and enhancing education, in particular on gender, the intersection of climate justice and gender considerations, as well as problem-solving and creativity skills. Furthermore, financial, technology and capacity-building support should focus on gender mainstreaming, be gender-responsive, integrate human rights considerations and involve the participation of indigenous peoples, particularly when it comes to natural resources management. Disaggregated data systems can also help, while purely data and indicator-driven approaches should be avoided.

39. The second question related to the role of the private sector: “How can we strengthen collaboration between the private sector and the public sector towards tangible climate change adaptation action?” The challenges in this issue related, in particular, to a lack of public-private sector integration (for example, the lack of partnerships, focal points and communication channels, especially in developing countries) as well as the high risks of investment in adaptation (more specifically, the lack of bankable adaptation projects, lack of de-risking arrangements, risk adversity of commercial banks, and lack of measurability of adaptation targets). Problems related to governance involved the lack of stable institutions, lack of trust, overregulation, corruption and lobbying, environmental safeguards, and unstructured planning processes. Further barriers result from limited climate data as well as lack of research and development. Budgeting constraints involve bad conditions for adaptation finance and lack of budget allocation to adaptation. Other negative factors included short-termism, primacy given to GDP growth, the tendency to shift responsibility back and forth and the spread of misinformation in social media. Possible solutions included enhancing cooperation by outlining common goals, through meaningful engagement, co-development of projects, sharing of private sector data for adaptation planning, and consultations with the private sector in adaptation policymaking. Incentives for investments

in adaptation could be created through tax waivers, grants and concessional loans, and green credits, by including externalities in project costs, and by using public finance to leverage private sources. Furthermore, standards and metrics can help to articulate goals and partnerships and to monetize resilience benefits. Other suggestions included changing mindsets towards more sustainable business practices, nationalization of means of production and services, regulatory and tax-based approaches, involving indigenous peoples and local communities in public-private partnerships, and enhancing capacity-building and education.

#### **D. Session 4: National and regional perspectives on changing mindsets**

40. In the previous sessions, participants outlined various aspects of transformative approaches and the required mindset change, how the knowledge of indigenous peoples and local communities can enable the mindset changes needed, how organizations are implementing a mindset change in their operations, and how dimensions such as gender-sensitivity, equity, justice, transboundary aspects and private sector involvement can be considered within the GGA framework. Session 4 took a deep dive into how mindset change is happening in countries, with presentations by a representative of the Swedish Meteorological and Hydrological Institute/EU (SMHI/EU), by Argentina and by a representative of the African Climate Development Initiative/University of Cape Town (ACDI/UCT).

41. The representative of SMHI/EU described the approach they have developed to help policymakers achieve a mindset change for moving from incremental to transformational adaptation. She reiterated that the two form a continuum, both are needed, one might move from one to another, and that transformational adaptation is not necessarily positive. She then outlined the SMHI approach, which is based on developing a vision of the type of society that one wants to achieve in context of a changing climate and identifying what steps society can take towards this. This is done through visualization and back-casting exercises, followed by group discussions and the development of more specific plans. She reported how this approach has been applied by the city of Malmö and will be presented at the Nordic Adaptation Conference this year. In their questions, participants returned to the question of defining transformational adaptation, and the presenter emphasized that transformational and incremental adaptation are different because the former means a change in system attributes, but that there is no clear line between the two. Another question related to how unpredictable disruptive events such as COVID-19 can be factored in. The presenter explained that it is possible to introduce such disruptions into the vision. It was also suggested that there are possible synergies between the SMHI approach and Resilience Frontiers initiative given that both involve visioning and back-casting.

42. The representative of Argentina presented their national perspective for linking national adaptation efforts with the global goal on adaptation. She highlighted how proxy indicators can be developed on the basis of qualitative analysis and case studies, while bearing in mind that indicators should not overload the framework and will most likely require further improvements. On that basis, forward-looking targets can be developed, and indicators can be used for backward-looking assessments. She also described that for its second adaptation communication submitted in 2020, Argentina developed a qualitative national adaptation goal for 2030 based on its NAP. To translate the goal into indicators, they identified qualitative narratives related to social perception, engagement and reduced vulnerability. This enabled articulating targets and indicators such as the level of interest among the public on climate change issues, which has increased by 20 per cent from 2022 levels. The indicators also provide a basis for reporting in the biennial transparency reports later. In the discussion, a participant asked how to avoid an overload of indicators. The presenter explained how they used existing indicators, including from the SDGs. Another question related to how the views of indigenous peoples could be reflected in the GGA framework, to which she responded that it is important to hear from the indigenous peoples themselves on how to reflect their value systems and knowledge, rather than imposing such metrics, and that an expert from the LCIPP could present information on possible options.

43. The representative of ACDI/UCT presented the results of a study of peer-reviewed adaptation-related publications. A group of 100 researchers screened 48,000 studies using

machine learning, identifying patterns in adaptation efforts across the world, including in relation to priority sectors, regional distribution, types of responses, gaps, adaptation financing, and levels of transformational adaptation. The identified adaptation responses involved behavioural changes, technology, nature-based solutions and institutional responses. In terms of finance, the study found that 78 per cent of climate funding to Africa goes to institutions based outside of Africa. In relation to transformational adaptation, the study observed its limited application (most adaptation efforts were incremental), and found that implementing it would require additional research, data, finance and governance arrangements. In the discussions, participants highlighted the importance of balancing qualitative and quantitative metrics within the GGA framework, and possibilities of developing impact indicators based on the IPCC's burning embers graphs.

## **E. Session 5: Developing a framework for the global goal on adaptation**

44. In session five, participants focused on how to further develop the GGA framework, including how the concepts discussed in the previous sessions could be integrated into it. In this regard, participants considered in particular how the GGA framework could accommodate both incremental and transformational approaches in a flexible way and without creating additional burdens, how it could encourage systems-thinking while ensuring actions were country driven, how it could build on existing workstreams and resources and expertise embedded in existing work around the world, how it could facilitate more inclusive approaches and better integrate stakeholders and indigenous and local perspectives, and how non-prescriptive metrics and indicators could be developed to strengthen the framework. The modalities of work for the rest of 2023 were also considered. These were discussed in two breakout groups and in a plenary discussion.

### **1. Breakout group 1**

45. The focus of the first breakout group was on the dimensions of the GGA framework outlined in paragraph 10 (a) of 3/CMA.4, taking into account its themes identified in paragraph 10 (b). This breakout group was informed by four guiding question, and its discussions were complemented by the full discussion that followed afterwards.

46. The first guiding question was: “what are the main dimensions of the iterative adaptation cycle that can be collated/aggregated at the global level and what should be the added value of the GGA framework?”. In relation to the dimensions, participants highlighted the importance of the adaptation cycle and how the GGA framework can build on it, and some highlighted the centrality of considering finance, technology and capacity-building support as stand-alone dimensions as well, particularly as these are required by developing countries to implement transformative adaptation. It was noted that means of implementation could be considered in relation to existing aspects of the adaptation cycle. With regard to the added value of the GGA framework, participants noted that it provides an elaboration of the GGA through an organizing structure which enables countries and stakeholders to submit information that illustrates the work they are doing and thus create a positive learning loop in which policymakers and practitioners learn from each other. It was also highlighted that the GGA framework can provide an opportunity to understand the global nature of adaptation and to consider both incremental and transformational adaptation and other issues like the co-benefits of adaptation; can help prioritize adaptation efforts and enhance cooperation; and can help to streamline reporting instruments and reduce the fragmentation of the adaptation landscape. In addition, the importance of the GGA framework for assessing progress was highlighted, though success here will depend on the information received. But it was noted that it must not create new burdens on developing countries.

47. Regarding the second question (“How can the framework (para 10 of 3/CMA.4) take the list of themes in 3/CMA.4 paragraph 10 and turn these into something tangible for the GGA (e.g. linked to each of the dimensions of the iterative adaptation cycle)?”), several participants suggested considering the themes in light of the themes and/or systems identified by the IPCC, taking into account national circumstances. Others suggested looking at the themes as broader systems (such as nature-biodiversity, economy-workforce, well-being, people, the planet, food systems, etc.), and that systems could be drawn from IPCC reports.

In this context, it was emphasized that further work should include defining what systemic change means, and that any systems-based approach should be inclusive. But it was also highlighted that systems thinking, and transformational adaptation are not yet advanced, require further evidence for their usefulness, and might create additional burdens, especially if means of implementation are not available for transformational adaptation. From this perspective, participants suggested ensuring that all adaptation actions are recognized in an inclusive, non-prescriptive and country-driven way, including those dealing with themes such as desertification, water scarcity, temperature rise, and co-benefits, while bearing in mind that not every theme is relevant for every country.

48. In relation to the third question (“How can the framework use and build on existing evidence to enhance adaptation and support?”), it was highlighted that the GGA framework must build on existing evidence, but also take it further. Participants highlighted several possible sources of evidence, including other UNFCCC workstreams (such as RSO, NAPs, NDCs and ADCOMs), IPCC reports, and the measurement, readiness assessments and data collection activities of the World Bank, among others. In this context, it was also emphasized that the use of specific information sources should not add additional burdens to developing countries.

49. On the fourth question (“In what ways can different stakeholders like subnational governments, NGOs, institutions, and local communities and indigenous peoples contribute with information for the assessment of GGA progress?”), it was emphasized that different governance levels and stakeholders are recognized in decision 3/CMA.4, that stakeholder consultations are essential within the process to formulate and implement NAPs, and that looking at the dynamics and impacts of expanding cities, for example, as done by UN-Habitat, can provide information beyond vulnerability analyses.

## 2. Breakout group 2

50. The second breakout group considered the dimensions of the GGA framework identified in paragraph 10 (a) of decision 3/CMA.4 in light of the cross-cutting considerations identified in paragraph 10 (c) of the same decision. This breakout group was also framed by four questions.

51. The first question was: “How can the framework (para 10 of 3/CMA.4) take the long list of cross-cutting considerations in 3/CMA.4 and turn these into something tangible for the GGA? E.g. Linked to each of the dimensions of the iterative adaptation cycle?”. On this question, participants highlighted, in particular, that the different cross-cutting considerations could fit around the adaptation cycle, though this should not be done prescriptively – participants emphasized that national determination of priorities and adaptation being country driven was critical. The challenge of developing a global lens through which to view the considerations vis-à-vis nationally-led adaptation was also highlighted. It was suggested that a workshop could consider baselines, methods, metrics and targets in relation to the cross-cutting considerations, and that any guidance should provide experts with more clarity on what each cross-cutting consideration covers. Participants also emphasized the importance of several specific cross-cutting considerations, including locally-led adaptation, transboundary considerations, gender aspects, metrics, targets, best available science, traditional and indigenous knowledge, as well as the involvement of the private sector.

52. In relation to the second question (“How can the GGA framework build on and facilitate existing reporting systems? E.g. Sendai Framework under UNDRR and CBD biodiversity targets”), participants discussed that drawing on reporting under other systems can help reduce the fragmentation of reporting, enhance consistency, help develop more robust assessments, and to bring in information from diverse actors to facilitate monitoring and evaluation. It was suggested that work should consider links with CBD, NDCs, NAPs, the Sendai and other frameworks, and that many organizations are interested in exploring synergies. However, some also cautioned against overloading the GGA process with data, creating duplicative structures, or drawing on frameworks that do not include clear climate change dimensions. In this regard, it was highlighted that work should carefully assess what is taken from other processes, and to ensure the complementarity between frameworks, while bearing in mind that adaptation reporting and indicators should be country driven.

53. The third question was “How could the GGA framework take into account targets that are both backward looking and forward looking?” Here participants suggested, inter alia, to look at both dimensions, and identify baselines for backward- and forward-looking aspects of existing processes, such as the IPCC, NDCs, NAPs, ADCOMs, TNAs and SCF reports. It was mentioned that targets can only be forward-looking, but that backward-looking information can help assess the current situation and inform target-setting.

54. On the fourth question (“How can the framework use and build on existing evidence to enhance adaptation action and support?”), participants highlighted how, for example, the Cancun Adaptation Framework has been useful in enhancing action and support, how the GGA framework can synthesize information from countries to feed into collective assessments to support the GST and thus the enhancement of action and support, and how it can enable moving from incremental to transformational adaptation. The GGA framework can also enhance the focus on social justice, intergenerational equity, support, target setting, and community- and ecosystems-based adaptation.

### **3. Future work**

55. As part of session 5, participants also elaborated on the next steps in the work. It was suggested that work should now find a way to capture the discussions, start simplifying them to make them more usable for policymakers, and reflect them at the SBs, and would benefit from considering what needs to be achieved this year alongside what could require longer-term work. In terms of the modalities of work, it was emphasized that the consideration of the framework should move towards more concrete submissions and discussions. To this end, some participants also discussed the possibility of an additional informal task force to accelerate the development of the framework. However, several participants considered that working through submissions and workshops was the agreed modality. As a way forward, some participants expressed a desire to work together informally during the intersessional period. It was noted that any Parties and organizations can continue discussions and prepare joint submissions between workshops.

## **F. Session 6: Linkages with the global stocktake**

56. The final session focused on how the work can contribute to the global stocktake, which information collection, technical dialogue, and consideration of outputs. Three guiding questions and a presentation on the state of the GST by the secretariat framed the discussion. The information collection stage is ongoing, with one input being a synthesis report on adaptation by the secretariat that refers to the GGA, which the secretariat intends to update to include, among other things, information related to the GGA framework. SB 57 decided to start informal consultations in April and a process of submission to consider how to move into consideration of outputs, with further modalities involving a high-level committee and roundtables at COP 28. On adaptation, the technical dialogue has discussed IPCC inputs, pathways and the state of adaptation and support, while the World Café discussions have looked at impacts, planning, natural systems and support. Parties have considered various assessments that are available at this stage. The next technical dialogue will focus on the elements of Article 7, paragraph 14 of the Paris Agreement. Substantively, Parties discuss similar issues in the GST as in the GGA framework discussions, including adaptation needs, early warning systems, the role of science, methodologies, transboundary aspects, transformational adaptation and equity.

57. The first guiding question was “what elements of paragraph 10 of 3/CMA.4 (dimensions, themes, and cross-cutting considerations) can be considered for the first GST?” Among other points of discussion, it was highlighted that paragraph 24 of 3/CMA.4 decided that the elements of paragraph 10 will be taken into consideration for reviewing overall progress in achieving the GGA in the context of the first GST. One approach to providing input could be to ask the GST co-facilitators to consider specific areas and themes around cross-cutting issues in the technical dialogue. In terms of specific elements, the GST could follow a structured approach based on adaptation cycle and focus on gaps and opportunities for action and support across all thematic areas under UNFCCC principles, including cross-cutting issues of equity and support. It was also highlighted that the GST could feed elements,

dimensions, themes, and cross-cutting issues to the conversation on the GGA framework; however, at present, there is no structure in place for that.

58. The second question was: “Last year, we considered existing indicators and frameworks including the Sendai Framework, SDGs, SG call on EWS, CBD targets and more. Can we narrow focus on which of these can be applicable for the GGA to contribute to the GST?” One suggestion was to develop links with the SDG process, given that Article 7.1 of the Paris Agreement refers to the context of sustainable development. Participants also suggested considering the indicators available in the CBD and SDG frameworks (e.g., those relating to water, ecosystems, nature-based solutions and others), and the SGs EWS initiative. The discussion also highlighted the importance of focusing on forward-looking elements, solutions and transformational processes. Potential sources of indicators were mentioned, in particular AC work on targets and indicators, as well as UNEP’s repositories of information as a custodian of specific SDGs. However, it was also emphasized caution should be taken when adopting indicators and targets from other frameworks, as they may have been developed differently and may not involve climate considerations. It was also noted that it is important to avoid duplications with the technical dialogue or reordering of the workshops, and that the applicability of indicators needs to be considered carefully.

59. In relation to the third question, “how can our ongoing work on GGA contribute to the technical assessment and consideration of outputs of the GST?”, participants focused on how such contribution could be prepared in context of current working arrangements. Some suggested dedicating a session or sessions at the sixth and/or seventh workshop(s) to prepare an input for the GST. In terms of the timing of such a session, several participants preferred organizing it before the SB sessions in June 2023, but close enough to the sessions to allow participants to join and to reduce travel times, and in ways that does not overlap with group coordination. Participants emphasized the need to maintain separation from negotiations. It was also suggested that an input to the GST could be organized along the adaptation cycle, involve considering what further cooperation would be helpful, and draw on existing materials.

---