

AILAC

Submission to the First Global Stocktake
Second Information Gathering Phase / Second Technical Dialogue
18 OCTOBER 2022

1. Further to Decision 19/CMA.1 on Matters relating to the Global Stocktake, Colombia presents the following Submission on behalf of the AILAC Group of Countries, for its consideration throughout the technical dialogues under the first Global Stocktake to be completed by CMA5 in December 2023.
2. Further to the views expressed, AILAC reserves the right to elaborate further in subsequent submissions and discussions in the context of the Global Stocktake as well as update or revise the elements reflected in this Submission, bearing in mind the development of discussions under the different sessions of the Technical Dialogues and or the CMA.

A.) Overall rationale and approach to the GST

3. The work under the technical dialogues of the GST must be relevant to, and speak to the demands of, the outcome of the GST and the concepts, solutions, actions, guidelines, and other elements that are to be captured there, **in light of the FUNCTIONAL purpose the GST plays in driving the ambition cycle under the Paris Agreement towards ultimately achieving its long – term goals.**
4. The latest available science makes it abundantly clear that NDCs, LTSs, NAPs and adaptation communications to date are collectively insufficient to achieve the PA/UNFCCC long – term goals, both in terms of the declared ambition (ambition gap) and with regards to setting out timely concrete actions and support in line with achieving stated goals (implementation gap), all of this against the backdrop of insufficient resources provided to developing countries (finance gap). The processes and policies followed by countries as they have sought to implement the Paris Agreement have been deeply inadequate to address the challenges of climate change as understood by science. To this, the problem the GST must address is then: how can each Party best make use of the information provided by science, to achieve our collective climate goals?
5. The ultimate measure of the success of the GST will not be its adherence to process, nor its diversity of inputs or innovative modalities, but rather its ability to provide Parties with concrete guidelines that both provide information and technical elements to empower them to adopt the measures they need, and also present a reference frame for Parties' to understand each other's actions and ambitions in light of the collective goals, thereby enabling technical conversations to feed into both national policymaking and investment environments, international cooperation, and UNFCCC negotiations regarding mitigation, adaptation, loss and damage, finance, capacity building, technology transfer, just transitions, and all other elements of climate action that are crucial for our success. This will be crucial as each signatory of the Agreement endeavours to honour its commitment to limit global warming to 1.5°C, increase the ability to adapt to the adverse effects of climate change and foster climate resilience and low greenhouse gas emissions development, and make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

6. In this light, our approach to the GST must be to place the best available scientific understanding of the climate crisis at the centre of our work. This means the Technical Dialogues should focus on i) the relevant global targets and ii) the latest IPCC global findings with regards to these targets; and we would encourage submissions and interventions from Parties and NSAs to make clear references to these. In this way, the concrete stories on successes, good practices, unmet needs, or challenges faced, can be framed within our collective agreed scientific understanding of what needs to happen, and how we can collectively achieve it, as we aim to assess the progress made to date and the lessons we have learned in order to determine what actions we must take in future.

B.) How to place climate science at the heart of the GST

7. Recent IPCC publications, including the Special Report of Global Warming of 1.5 Degrees (SR1.5) and the Working Groups I, II, and III contributions to the Sixth Assessment Report (AR6) are categorical on the need for Parties to undertake unprecedented deep and rapid structural change – also called “transformational change” – across all aspects of regulation, investment, technology, and behaviours, if global economic activity is to become consistent with achieving the Paris Agreement goals. Furthermore, the IPCC provides us with conceptual frameworks and technical language to describe the unprecedented systems change we need. These concepts and language must be core to the guidelines contained within the outcome of the GST, so that Parties are guided directly by the language, concepts, and facts of climate science.
8. For example, when addressing the **mitigation** challenge of rapid emissions reductions, both the SR1.5 and the AR6 WGIII reports point out how a collection of single sectoral mitigation measures will necessarily be insufficient to limit warming to 1.5°C – although most national NDCs are structured in this manner. This means that “systems transitions” are needed across all productive sectors of the economy: rapid simultaneous shifts in technologies, market rules, and investment incentives will be necessary, but can only be achieved by suites of coordinated measures and policies that reinforce each other. Sectoral systems cannot be changed in isolation, given the strong links between energy, cities, land and food, industry, and infrastructure, as well as further links between economic activity, climate action, and the Sustainable Development Goals.
9. In this context, coordinated planning, investment, regulation, and political will are necessary to bring about a new economic reality. The implications of such changes are so far-reaching for Parties’ economic structure that addressing the climate challenge requires us to “**shift development pathways**” to “**low-emissions development**” according to the IPCC. Therefore, it is now an accepted scientific fact that limiting warming to 1.5°C demands that climate change must become a central aspect of the socioeconomic development plan of all countries, informing fiscal, labour, and social and educational policy as well as that of energy, agriculture, forestry, industry, infrastructure, transportation, waste, and all other emitting sectors. The IPCC further stresses the importance of ensuring social inclusion, job creation, and poverty reduction within these new development plans as a necessary condition for their acceptance and success, which requires a dedicated focus on “**just transitions**” as countries strive to update their NDCs in light of the outcome of the GST.
10. To achieve such a just transition, it is essential to move towards a transformation of our societies. This transformation must be undertaken from a holistic view that incorporates both economic as well as environmental, social and welfare variables. It is a process that requires a broad and

strategic approach that allows us to evaluate our forms of consumption and production, extending beyond specific measures such as the decarbonization of the energy matrix.

11. This process of transformation should seek, through social dialogue and collective empowerment, that society becomes more resilient and equitable so it can face the social, ecological and climatic crises. The transition requires that the productive sectors be innovative and sustainable and that decent work, gender equality and territorial and intergenerational equity, climate resilience and social and environmental justice be ensured. All this to achieve ecological balance and the physical, mental and social well-being of people.
12. One of the main characteristics of this vision of the just transition is to promote the mainstreaming of the ecological approach in the functioning of the State, as an overarching vision of the activities carried out by government entities, in addition to the involvement of local communities in its development. For this reason, specific institutional arrangements can be considered for the coordination of government actions across areas with competences in environmental, economic, social and gender equity matters. Similar approaches could apply at local level in a manner that allows civil society, private sector, and regional and local authorities to actively participate in the transition process.
13. Regarding **adaptation**, IPCC results stress how vulnerabilities are manifesting themselves at lower levels of temperature increase, and with greater impacts, than previously predicted, stressing a much greater urgency of adaptation action. Adaptation action to date has been utterly inadequate for the challenge we face (“most observed adaptation is fragmented, small in scale, incremental, sector-specific, designed to respond to current impacts or near-term risks, and focused more on planning rather than implementation” WGII SPM), and continuing with current modalities and pace of adaptation will guarantee that we fail to create the resilience we need. A further scientific result is that much of the adaptation action to date has led to significant maladaptation, with measures having unintended and harmful consequences. In addition, the IPCC points out that soft limits to some human adaptation have been reached, caused by financial, governance, institutional and policy constraints, and that hard limits to adaptation have already been reached in some ecosystems and will increase in ever more systems (natural and human) as we continue to emit GHGs. Hard limits mean that no adaptive actions are possible to avoid intolerable risks, making losses and damages inevitable. This puts the very notion of adaptation in a different light, and increases the urgency to reduce global emissions rapidly enough to stop further temperature increases.
14. In this context, the IPCC AR6 WGII report states clearly how, with vulnerabilities stemming from multiple interconnected factors, specific actions leading to incremental adaptation cannot lead to the overall resilience we require – even though the majority of adaptation action to date has been precisely of this nature. Resilience can only be enhanced in line with the Paris Agreement goals if the bulk of decisions across policy, business, and social arenas are made within the framework of “**climate resilient development**”, which will enable decision-making to include multiple dimensions and criteria which are more likely to increase resilience and reduce vulnerability, as well as reduce emissions and promote the achievement of other SDGs. In a manner parallel to what we find in mitigation, IPCC science on adaptation backs up these broad general concepts with a wealth of technical language and concrete examples. Therefore, if the GST is to enable Parties to work towards the resilience they need with their next round of NDCs and their NAP process and update

of adaptation communications, these concepts and language must be included with the Outcome of the GST to provide them with relevant and actionable guidelines.

15. The speed and scale of the transformations needed to shift country development pathways across so many systems at the same time has been described by the IPCC as “**not geo-physically impossible**” but “**unprecedented**”. Therefore, providing the necessary **enabling conditions** for such change requires extraordinary efforts, against which climate action to date falls dramatically short. This is true of finance, capacity building, and technology development and transfer, as well as social aspects of climate action, and international cooperation, which is the heart of the UN process created by the Paris Agreement.
16. In particular, the IPCC has notable quantified estimates regarding both the scale and availability of finance for climate action to date, and those necessary for the actions required to implement the Paris Agreement transformations. The IPCC is clear in emphasizing that global capital and liquidity necessary for these transformations is available, thus underlining that the lack of accomplishment of the USD100 billion goal by developed countries has never been a problem of money. The problem lies rather with the structure of financial systems, which must change significantly to create far greater incentives for investments to 1.5°C. and disincentives for the fossil-friendly investments that still play a central role in markets today. The science clearly shows how **system-wide de-risking of clean energy, sustainable infrastructure, and other investments within developing countries** is a crucial and highly cost-effective step to unlock the shift, which has a direct bearing on how the challenges of climate finance are addressed both internally by Parties, globally by international financial markets, and within the space of multilateral action, including the UNFCCC negotiations. In a manner analogous to mitigation and adaptation solutions, the solution to financing lies in a multi-pronged agenda of systems change to ensure a network of mutually reinforcing actions, so that critical investments in developing countries are de-risked, while alternative carbon-intensive investments are disincentivised. Once again the IPCC provides both conceptual guidelines and concrete actions and figures which must be central to the GST outcome to ensure all Parties can use them to their full effect, in a manner appropriate to their national circumstances but always in line with the achievement of the global goals.
17. It is clear how, despite the breadth and diversity of research results cited by the IPCC reports, there is an overarching message of far-reaching and holistic transformational change extending across the best available climate science. For this reason, AILAC considers it imperative that these concepts and their associated technical language, as presented within the IPCC’s AR6 and SR1.5, be core components of the outcome of the GST. Science tells us that adopting new ideas regarding system change, in order to pursue different social and economic development models from those currently being sought, is not optional if we are to meet our obligation to implement the Paris Agreement. It is therefore imperative that the GST outcome present countries with actionable guidance expressed within these terms. Parties will have to show great willingness to adopt the language of the science of Paris in their deliberations and decisions, instead of falling back to the accepted language of previous decisions. However, the old way of working has already been proven to be inadequate for the task at hand. The GST Outcome must decide that Parties will now rise to the challenge of addressing the climate crisis on terms that make scientific sense.
18. Under this approach, Parties must set forward those near term (2030) actions and transformations that are necessary to make 1.5°C possible under a systemic approach where mitigation and

adaptation efforts are consistent with science, enabling enhanced resilience, and in which the climate finance landscape is an enabler for a climate coherent transformation. This goes beyond the more traditional approach of thinking about mitigation, adaptation and means of implementation as separate topics, but rather ensuring that enhanced “Paris-aligned ambition” is the result of coherent approaches in light of what science has indicated must happen for all of these to succeed together.

19. The IPCC makes clear that international cooperation will be a key enabler for developing countries to achieve this transformation. Hence, robust national visions towards achieving the Paris goals, including national and sectoral pathways, can provide an invaluable framework to establish the character, amount, and timing of support needed by each Party to collectively achieve our global goals.
20. The IPCC reports provide concrete milestones for global pathways, as well actions across sectors with numerical target ranges for specific metrics. The UNFCCC has already included some of these within its decisions, notably in the COP 26 commitment to limit warming to 1.5°C by reducing global emissions by 45% by 2030 with respect to 2010 global emissions as well as the phasing out of fossil fuels and fossil fuel subsidies, reflecting what the science tells us is required to achieve the Paris goals. Similar commitments linked to scientific guidelines and milestones are needed across countries and sectors, with IPCC discussions around various potential pathways informing planning and negotiations around options and trade-offs.
21. Furthermore, while the IPCC reports point out the direction of travel we must follow, there are significant knowledge gaps regarding how these new development models can be put into operation. Therefore, the GST must also request further research from the scientific community in order to develop additional policy-relevant guidance on how such changes can be made operational within countries and across the international community.
22. Concrete messages regarding mitigation, adaptation, loss and damage, and finance are further elaborated in the following sections of this submission.

C.) GST messages regarding mitigation action and emissions reductions

23. The conceptual framework of pursuing unprecedented systems transformations through the implementation of holistic, low-emissions, climate resilient development pathways, as highlighted by the IPCCs in its SR1.5 and AR6 reports, presents us with the best way to describe the actions and support measures required to reduce emissions in line with 1.5°C pathways.
24. In line with this framework, the GST deliberations must directly address the unprecedented transformations of the key systems highlighted by the IPCC, with a view to generate guidance relating to all of them as part of the GST Outcome, including:
 - i. Energy
 - ii. Industry
 - iii. Urban & Infrastructure
 - iv. Land & Food
25. Achievement of such transformations requires integrated approaches to planning, financing, and

implementing change, with packages of coordinated measures driving multiple re-enforcing results. Thus, Parties must establish their own vision towards fully achieving the Paris goals – including national and sectoral pathways which rapidly reduce emissions in line with the global 45% emissions reduction by 2030 with respect to 2010 global emissions, while incorporating their resilience, socio-economic development, and SDG goals.

26. In this spirit, for the transformation of **energy systems**, discussions under the Technical Dialogues must provide input into the GST Outcome to provide guidance on *the need to decarbonize electricity generation*, since this is a precondition for low emissions energy in virtually all scenarios considered likely to achieve Paris and can be linked to global milestones. Technical questions regarding technology and infrastructure rollout for generation, transmission, distribution and storage will vary significantly by country, but all countries would be advised to systematically approach these questions.
27. *Shifting energy use away from technologies that burn fossil fuels to electricity*, or alternatively to fuels that can be demonstrated to be free from emissions and sustainable in their value chains at scale, is another step the GST must highlight. As an example, electric, hydrogen, fuel-cell or other non-fossil drive-trains must prevail in passenger transportation sales and use by or before 2050, with global technology penetration benchmarks available to frame national planning. Burning fossil fuels in buildings for heating and cooking will also have to be phased out, with a broad range of appropriate alternatives made available in local markets so that doing so makes sense for citizens, families, and businesses. There will be important variation between countries, where for example developed economies may primarily be looking at substitution of existing systems through technology replacement, while developing countries could leapfrog old technologies and start rolling out future-proof systems from today. Parties following guidance provided by the GST must have the elements to identify their own choices, refer to global benchmarks, and set their own milestones for this change.
28. As all countries take up alternative energy sources and technologies, they must set a route to *reduce and ultimately eliminate fossil fuels* from their economy. The Technical Dialogues' discussions must address this matter to enable the GST outcome to make this clear, and expect Parties to engage with this challenge and set out their own individual strategies and timescales to do so, within the context of their socio-economic processes and development aspirations, in the manner that best suits their national circumstances. The simultaneous investments in low-emissions electricity and disinvestment in fossil markets and systems may imply significant changes to labour markets, fiscal strategies, and other important components of national political economy. The GST Outcome must not prescribe national responses to these challenges, since they must be nationally determined, but it must urge countries to consider these challenges in an open and timely manner, and provide an analytical framework and a narrative context for these deliberations to inform the global dialogue on climate between today and 2030.
29. **Industrial systems** also require in-depth changes which may face significant constraints from social, customer, labour, technology, capacity, and financial considerations. Beyond *bringing energy efficiency to industrial activity*, the GST Outcome and thus the discussions under the

Technical Dialogues must help Parties *recognise the role of industrial processes* within their current and future national emissions. Core sectors should be highlighted, so international technology and market shifts can help achieve a global shift. The change of processes and process technologies can present solutions which may not be available to a single country or company, but which can be driven at a system level with the right cooperative elements including in investments, technology transfer, and market standards to ensure those that chose to shift are not punished through short-term competitive difficulties. These concepts must be made clear by the GST, for further work to deepen in specific sectors including steel, cement, chemicals, and others.

- 30.** *Material substitution, product substitution, and product re-design* will also play a role in ensuring that industrial activity can continue to provide the inputs required by the broader economy while rapidly reducing its emissions. These shifts can bring both opportunities and risks to Parties, and may require significant investment, for which guidance, current benchmarks, and potential global milestones should be provided so Parties can make the best choices.
- 31. Urban and infrastructure systems** determine many of the daily decisions taken by billions of people as they go about their lives. Transportation is a major source of current and/or expected emissions in most countries, and the *range of transportation options available to citizens* – and hence their emissions – largely depends on infrastructure and investments in transport networks including road, rail, and non-motorized options. Urban form is also a driver of transport demand, meaning that the distances people must travel to access work, education, and services also impact on emissions. Mitigation strategies which refer to vehicle technologies without addressing urban transport systems may miss important opportunities to increase climate resilience and quality of life even as they reduce emissions, making guidance on such systems a crucial component of any GST Outcome and a must to be addressed by the Technical Dialogues.
- 32.** Beyond the structure of cities themselves, *the envelope of buildings* can further play a decisive role on energy demand, such as the degree of thermal insulation of homes in countries with colder winters. Again, Party-specific problems and solutions will vary: while in developed countries, challenges may lie in retrofitting older buildings to retain heat, developing countries may find that urban planning is key to ensure rapidly growing cities are resilient, efficient, and inclusive of future transport systems, waste collection, and other urban services which lead to emissions. All countries will have to take a system approach to planning their cities, so the Technical Dialogues and in turn the GST Outcome must highlight this and provide guidance on how to do so. Countries will benefit from suggested criteria and resources to identify and implement the potential solutions that best suit their development aims, while ensuring low emissions and resilience.
- 33. Land and food systems** present the greatest potential for actively absorbing CO₂ that is already in the atmosphere, while also accounting for the livelihoods of many of the world's poorest and most vulnerable people. It also has close dependence on climate change impacts, and significant overlap with biodiversity and other SDGs. This complexity makes it vital for all Parties to have access to the latest research and best practices when developing land – use aspects under their NDCs. Furthermore, global boundary conditions on the agricultural envelope, together with the total volume of potential negative emissions (absorptions) of CO₂ globally available in different socio-

economic development scenarios, suggests that global collaboration will be crucial to this sector, and all Parties must be aware of this as they progress with their national plans.

34. Forests are one of the largest carbon sinks on Earth, with all scenarios consistent with 1.5C including significant reductions in deforestation. Forest degradation can also lead to methane emissions, as well as that of CO₂. Good forest management is therefore crucial to mitigation commitments. Furthermore, it is necessary to increase knowledge of forests and other ecosystems which are both vulnerable to climate change and deliver ecosystem services of importance to their local communities.

33-35. The potential trade-offs between our food production and resource management and the need for stewardship of ecosystems and their ability to provide services will lie at the heart of successful climate action for many countries. The GST must help identify and provide tools and fora to address challenges in *forest and ecosystem management, cultivation of food and soil management, livestock, and diets*, since all of these will have to transform in a manner that is synergistic with the other components if we are to avoid climate disaster. The GST must further ensure that links between resilience and emissions reduction fully permeate the land and food system approaches, and highlight these issues for policymakers, referring them to reliable scientific data at the global and regional level so that national plans can be adequately informed.

34-36. Implementation of all said transformational measures and policies necessary to achieve the long-term objectives of the Paris Agreement will only be possible by ensuring collective efforts and effective international cooperation towards achieving a new development paradigm. One of the cooperation actions on which countries may embark on is that outlined by Article 6, paragraph 1 of the Paris Agreement: a voluntary cooperation to allow higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity. This voluntary cooperation may be effective if it happens between countries with national decarbonization and resilience goals in line with the science of keeping us below the 1.5C threshold. This cooperation could also help countries with low capacities overcome barriers preventing them from following a decarbonized development pathway. To this extent, the technical dialogues could serve to exchange experiences or conditions that should exist to guarantee that, through participation in markets, the ambition of Parties' national objectives is strengthened while they also contribute to global decarbonization in line with the Paris goals. Those experiences could be based on identifying eligible measures for carbon markets that are aimed at catalysing ambitious transformation in different sectors and promote cooperation between countries with ambitious climate goals instead of offering cheaper offsetting solutions.

35-37. In a complementary manner, it will be crucial that, as an outcome of the 2023 GST, an analysis to understand the global impact of the implementation of market instruments under article 6, and other international instruments, is commissioned to the IPCC. This analysis will be helpful to understand whether the market instruments are fulfilling their final purpose of contributing to global mitigation based on the analysis of parameters such as:

- a) Compliance with the main principles of article 6, including environmental integrity.
- b) Whether the carbon markets are leading or not to an increase of global emissions.

- c) The conditions under which the cooperative market approaches are taking place.
- d) The quality of the ITMOs that are being traded.
- e) The use of the ITMOS (not only the purpose but the level of use) and,
- f) Whether with the implementation of market instruments under article 6, the transformations necessary for decarbonization are being leveraged.

36-38. Based on this analysis, one of the results of GST2 (2028), and of subsequent GSTs, should be the recommendation on possible new limits and safeguards to guarantee that the instruments at a global level fulfil their ultimate purpose or, as relevant, a plan for the progressive reduction of use of international carbon markets as scope for global emissions reduces in line with the science of 1.5C.

D.) GST messages re ADAPTATION AND LOSS AND DAMAGE

37-39. The GST outcome must place adaptation and resilience as a core pillar of all investment, planning, development and support initiatives, as a variable that is intrinsic to sectoral development in light of achieving overall development resilience, reduced vulnerability and enhanced adaptive capacity in light of climate change impacts.

38-40. The starting point for this work must be the enormous vulnerabilities faced by all countries, which may extend for decades or centuries if we overshoot the 1.5°C limit. AILAC countries are already suffering from locked-in effects due to current levels of warming, which may extend for decades or centuries if we breach the 1.5°C limit. As an example, the current global temperature rise already implies a further unavoidable reduction in the Cryosphere, where many smaller and medium-sized glaciers will continue ice loss to the point of total loss, with far-reaching consequences on the availability of water for downstream communities.

39-41. The IPCC makes clear that non-avoidable impacts of this nature will increase as temperatures rise further beyond today's 1.2°C, and more so if 1.5°C is exceeded, particularly within certain ecosystems with low resilience, such as polar, mountainous and coastal ecosystems. What is happening in the Cryosphere is intimately tied to the legacy that today's generation, through its action or inaction, leaves to future generations. The GST must highlight the link between rising global temperatures and such long-term unavoidable impacts, to drive for greater scientific understanding about how we can manage the impacts within our societies, and to drive for even greater ambition in emissions reduction.

40-42. But the GST must go further: in order to identify the current status of our work to enhance global resilience, and bearing in mind the mandates embedded in Article 7, paragraph 14 of the Paris Agreement, the GST must then elaborate on what achieving global resilience actually means in light of the long-term transformation towards achieving the Paris Agreement goals, which implies that addressing vulnerabilities must be an instrument, and not a by-product, for sustainable development, thus ensuring "*(...) an adequate adaptation response in the context of the temperature goal referred to in Article 2*" (Article 7, paragraph 1 of the Paris Agreement).

41-43. The work under the Glasgow – Sharm el-Sheikh Work Programme on the Global Goal on Adaptation shall inform the work of the GST so that its outcome informs Parties' actions within a systems level approach and in light of managing risk and impacts due to climate change, to

effectively deliver on this more comprehensive understanding of enhanced global resilience and considering the hard and soft limits to adaptation of existing and insufficient mitigation pathways, so that long – term adaptation planning and objectives are coherent with global and local mitigation approaches.

42.44. Therefore, in addition to the [sectoral and] specific messages presented below, the Technical Dialogues of the GST must address in a more cross-cutting manner other more systemic effects that, beyond enhancing resilience, are critical enablers for the delivery of the long – term transformation intrinsic to the 1.5°C goal and the objective of 2050 carbon neutrality while mindful of enhancing resilience.

43.45. The IPCC AR6 concluded that, despite progress in adaptation planning and implementation being observed across all sectors and regions, generating multiple benefits, and some evidence of risk reduction for particular places and hazards, and some evidence of a reduction in global vulnerability:

- “**adaptation gaps** exist between current levels of adaptation and levels needed to respond to impacts and reduce climate risks”.
- “Most observed adaptation is **fragmented, small in scale, incremental, sector-specific, designed to respond to current impacts or near-term risks, and focused more on planning rather than implementation**”.
- “Observed adaptation is **unequally distributed** across regions”.
- “Gaps are partially driven by widening disparities between the estimated costs of adaptation and documented finance allocated to adaptation”.
- “At **current rates** of adaptation planning and implementation the adaptation gap will continue to grow”.

44.46. According to the IPCC, “actions that focus on sectors and risks in isolation and on short-term gains often lead to **maladaptation**, if long-term impacts of the adaptation option and long-term adaptation commitment are not taken into account. An example of maladaptation is **seawalls**, which “effectively reduce impacts to people and assets in the short-term but can also result in lock-ins and increase exposure to climate risks in the long-term unless they are integrated into a long-term adaptive plan”.

45.47. Certain measures mentioned by the IPCC to reduce the risk of, avoid, prevent, or minimize maladaptation, are:

- Flexible, multi-sectoral, inclusive and long-term planning and implementation of adaptation actions with benefits to many sectors and ecosystems”
- Considering biodiversity and autonomous adaptation in long-term planning processes;
- Inclusive planning initiatives informed by cultural values, indigenous knowledge, local knowledge, and scientific knowledge; and
- Planning that accounts for the time it takes to adapt, the uncertainty about the rate and magnitude of climate risk and a wide range of potentially adverse consequences of adaptation actions.

46.48. The IPCC also advanced a new framing to allow for an improved **ex ante assessment of the potential contribution of a wide range of adaptation-related options to adaptation success or maladaptation**, which could be very useful for decision-making. Under this framing, successful

adaptation and maladaptation form the two ends of a continuum of risk management strategies and adaptation options can be assessed according to the following **criteria: 1)** benefits to human systems (number of people); **2)** benefits to ecosystems or ecosystem services; **3)** benefits to equity (marginalised ethnic groups, gender, low-income populations); **4)** transformational potential; and **5)** contribution to GHG emission reductions. According to an assessment made by the IPCC, no option is located at one or the other end of the continuum, showing that all options have some maladaptation potential, that is trade-offs. Among the assessed options, “coastal infrastructure” showed the highest risk for maladaptation, while the options most widely associated with successful adaptation were “natural restoration”, “social safety nets”, “change of farm/fishery practice” and “change of diets/reducing food waste”.

47.49. Considering evidence on enabling successful adaptation in the sectoral and regional chapters, the IPCC has pointed to **four conditions that stand out as particularly key to enabling adaptation success**. These are: **1)** recognitional equity and justice, including the integration of indigenous and local communities and knowledge¹; **2)** procedural equity and social justice; **3)** distributive equity and justice; and **4)** flexible and strong institutions that seek integration of climate risk management with other policies and address long-term risk reduction goals.

48.50. References to **other enabling conditions** (i.e., necessary pre-conditions that allow response options to be formulated and implemented) are found in different parts of the Working Group II Contribution to the IPCC AR6 and should also be taken into consideration by Parties in their decision-making processes.

- One set of enabling conditions mentioned in IPCC AR6 are those **for adaptation and climate risk management**:
 - **1) Governance**, including: a) **climate legislation**; b) **climate change policies, strategies and plans**; c) **impact of legal and policy instruments** (i.e., the extent to which national and subnational adaptation is driven or triggered by commitment to act, and guidance to do so, from international and national governance levels); d) **regulations and standards that address climate risk** (e.g., building codes and land use zoning); e) **environmental and social governance** (i.e., voluntary or non-legally required actions taken by participating parties to achieve a commonly defined goal);
 - **2) Finance**;
 - **3) Knowledge systems** (i.e., sets of interacting “agents, practices and institutions that organize the production, transfer and use of knowledge”), including **capacity** (i.e., the ability and the motivation to use knowledge for action) as a necessary enabling condition for knowledge to be put to use in adaptation activities.
- Linked to the above, and recognizing that the presence of enabling conditions alone does not guarantee that response options will occur in a timely fashion or at a scale commensurate with the risk, or even that they will occur at all, IPCC AR6 underscores the role of **catalysing conditions and actors** in accelerating action on climate change adaptation. These catalysing conditions and actors include:
 - 1) A certain level of sense of **urgency**;
 - 2) **Windows of opportunity** that emerge, for example, after an extreme weather event;
 - 3) **Climate litigation on adaptation**;

¹ IPCC: “Recognitional justice focuses on inclusion and agency, examining who is recognised as a legitimate actor and how their rights, needs and interests are acknowledged and incorporated into action”.

- 4) **Catalysing agents** such as social movements and other mobilisations.

49.51. In general, the IPCC places great value on the benefits of **transformational adaptation** as a driver of the overall socio-ecological systems' transformation that is necessary for **climate resilient development**, since such adaptation is inseparable from mitigation and sustainable development. According to the IPCC, "when incremental adaptation is insufficient to avoid intolerable risks, transformational adaptation may be able to extend the potential to sustain human and natural systems"; furthermore, "transformational adaptation can allow a system to extend beyond its soft limits and prevent soft limits from becoming hard limits".

50.52. The IPCC AR6 underscores **the role of decision-making on transformational adaptation** for dealing with residual risk as well as soft and hard adaptation limits. **Adaptability, flexibility and iteration** are characteristics that risk management decision-making needs to have in order to better account for uncertainties and unforeseen events in the future, avoid path dependency of decisions that may result in lock-in and maladaptation and keep options open for transformational adaptation. The IPCC also suggests the need for "**integrated risk management**", which is justified by the acknowledgement that "the complex, interacting and compounding nature of climate risks means that single risks cannot be managed in isolation, including accounting for potential risks arising from adaptations", and suggests aiming at **establishing synergies between sectors**, which include, at an early stage, to jointly map the steps for adapting to sectoral risks and determine suitable ways to avoid maladaptations arising". In general, the IPCC indicates, with high confidence, that "integrated, multi-sectoral solutions that address social inequities, differentiate responses based on climate risk and cut across systems, increase the feasibility and effectiveness of adaptation in multiple sectors".

51.53. However, given limited evidence to inform comprehensive global assessment of effectiveness and adequacy of adaptation-related responses, the IPCC assessed **evidence for transformational adaptation** and concluded, based on the literature and with high confidence, that "**the overall transformative nature of adaptation across most global regions and sectors is low**". In the same lines, the IPCC has indicated that "there is expanding evidence that many adaptation efforts have failed to be transformative, but instead **entrenched inequities, exacerbated power imbalances and reinforced vulnerability among marginalised groups** and that, instead, marginalised groups and future trends in vulnerability need to be placed at the centre of adaptation planning".

52.54. The GST cannot and should not consider **adaptation** in isolation from **mitigation** and **sustainable development**. Clear linkages between the three of them are found in several provisions of the Paris Agreement, including the purpose of the Agreement and its three long-term goals set up in Article 2.1, the global goal on adaptation established in Article 7.1, and the provisions contained in articles 4.1, 6.1 and 7.4. Clear linkages have also been recognized in the IPCC AR6, which refers to climate action and sustainable development as "interdependent processes", for example when it stresses that recent analysis shows that actions to meet the goals of the Paris Agreement can undermine progress towards some SDGs and that efforts to achieve the SDGs can contribute to worsening climate change. The IPCC concludes that these findings in the literature highlight the importance of identifying clear goals and priorities for both climate action and sustainable development as well as mechanisms for capitalising on potential **synergies** between them and for managing **trade-offs**, and stresses the importance of **pursuing these goals in an integrated manner**, as it increases their effectiveness in enhancing human and ecological well-being.

53.55. In line with the above, the IPCC AR6 puts forward the guiding principle of "**climate resilient**

development” (CRD), which it defines as a process of implementing GHG mitigation and adaptation options to support sustainable development for all. According to the IPCC, **this framing of development recognises:**

- The risk posed by climate change to development objectives;
- The opportunities, constraints and limits associated with reducing risk through adaptation;
- Synergies and trade-offs between mitigation, adaptation and sustainable development; and
- The role of **system transitions** in enabling large-scale transformations that limit future global warming to less than 1.5°C, while boosting resilience.

54.56. The IPCC AR6 WGII Chapter 18 builds its assessment of CRD around **five core elements that provide insights relevant to policymakers** actively pursuing the integration of climate resilience into development:

- Management of climate risk (by implementing adaptation, mitigation or other risk management options) must be accompanied by **interventions that address social and ecological vulnerabilities that enhance climate risk**
- CRD is dependent on achieving **transitions in key systems** (including the rate at which actors can achieve system transitions, their nature – incremental or transformational, and simultaneous progress on all transitions), including:
 - Energy
 - Land and ecosystem
 - Urban and infrastructure
 - Industrial
 - Societal
- **Equity and social justice** are central to CRD
- Success in CRD and alignment of development interventions to CRDPs is contingent on the presence of multiple **enabling conditions** (enabling governance systems and formal policy frameworks and policies; economics and sustainable climate finance; institutional capacity; science, technology and innovation; and monitoring and evaluation frameworks)
- Preferences for different pathways and specific actions in pursuit of those pathways will be subjected to intense scrutiny and debate among **diverse actors within various arenas of engagement**

55.57. However, the IPCC recognizes that there are still **knowledge gaps and modest or limited understanding**, for example, on how best to implement adaptation in a manner that achieves sustainable development; how adaptation can challenge development and create a situation where CRD effectively becomes transformative adaptation (adaptation that generates transformation of broader aspects of development); how adaptation options relevant to reducing risks posed by climate change to development are implemented in practice, their effectiveness across a range of possible climate futures and their potential limits; how to optimize mitigation, adaptation and sustainable development interventions to achieve multiple priorities; what are the possibilities for pursuing CRD with different levels of warming. The IPCC also underscores that there is currently **limited information available** regarding the following: (1) local implications of 1.5°C versus warmer futures with respect to local climate outcomes, avoided impacts and sustainable development implications and interactions, given that applying global conclusions to local, national and regional settings can be misleading; (2) local context-specific synergies and trade-offs with respect to adaptation, mitigation and sustainable development for 1.5°C futures; and (3) standard indicators

for monitoring factors related to CRD. Hence, as an outcome of the first GST, Parties could invite the IPCC to produce, by 2025, a special report that addresses several of the current knowledge and information gaps on how to achieve CRD.

56.58. Regarding **loss and damage**, it is important to recall that, in Decision 19/CMA.1, the CMA noted that the GST may take into account, as appropriate, efforts related to its work that avert, minimize and address loss and damage associated with the adverse effects of climate change, and this in the context of taking stock of the implementation of the Paris Agreement to assess the collective progress towards achieving its purpose and long-term goals, including under article 2, paragraph 1(a-c), in the thematic areas of mitigation, adaptation and means of implementation and support. The CMA also decided that the sources of input for the GST will consider information at a collective level on efforts to enhance understanding, action and support, on a cooperative and facilitative basis, related to averting, minimizing and addressing loss and damage associated with the adverse effects of climate change.

57.59. It is also important to recall some fundamentals of the Convention and the Paris Agreement:

- First, in the first paragraph of the preamble of the Convention, the Parties to the Convention acknowledged that “change in the Earth’s climate and its adverse effects are **a common concern of humankind**”. The “**adverse effects of climate change**” are defined in the Convention as “changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare”.
- Second, the Parties to the Convention’s concern about the adverse effects of climate change was reflected on the text of **the ultimate objective of the Convention and any related instruments that the COP may adopt**, where they stressed that the level of stabilization of greenhouse gas concentrations in the atmosphere that would prevent dangerous anthropogenic interference with the climate system “should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner”.
- Third, this concern is also reflected in the purpose of the Paris Agreement (“to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty”) and its long-term goals, as Parties to the Agreement recognized that achieving the long-term temperature goal “would significantly reduce the risks and impacts of climate change” (Art. 2.1(a)) and established the long-term goals of “increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production” (Art. 2.1(b)) and “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development” (Art. 2.1(c)).

58.60. As the focus of the Paris Agreement’s long-term goals is on **mitigation and adaptation** (including climate resilience), i.e. **averting and minimizing loss and damage**, the observed materialization of loss and damage, the increase of the risk of future loss and damage and the limits and insufficiency of efforts to avert and minimize loss and damage turn to be important parameters for assessing the collective progress towards achieving the purpose of the Paris Agreement and its

long-term goals, in the light of equity and the best available science, as per Article 14 of the Paris Agreement.

59.61. In this regard, the Working Group II contribution to the IPCC Sixth Assessment Report sheds light on the already observed impacts and projected risks from climate change, including related losses and damages, **despite efforts to avert and minimize loss and damage:**

- Regarding **observed impacts from climate change**, the IPCC tells us that “human-induced climate change, including more frequent and intense extreme events, has caused widespread adverse impacts and related losses and damages to nature and people, beyond natural climate variability”. “Some losses are already irreversible, such as the first species extinctions driven by climate change (medium confidence)”, while “other impacts are approaching irreversibility such as the impacts of hydrological changes resulting from the retreat of glaciers, or the changes in some mountain (medium confidence) and Arctic ecosystems driven by permafrost thaw (high confidence)”.
- Regarding **risks in the near term** (2021-2024), the IPCC makes it clear, with very high confidence, that “global warming, reaching 1.5°C in the near term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans”. According to the IPCC, “in the near term, climate associated risks to natural and human systems depend more strongly on changes in their vulnerability and exposure than on differences in climate hazards between emissions scenarios”. In the same line, it indicates that “the level of risk will depend on concurrent near-term trends in vulnerability, exposure, level of socioeconomic development and adaptation”.
- Finally, with respect to **mid to long-term risks** (2041-2100), the IPCC stresses that “depending on the level of global warming, climate change will lead to numerous risks to natural and human systems”, and that “for 127 identified key risks, assessed mid-and long-term impacts are up to multiple times higher than currently observed. The IPCC highlights as well, with very high confidence, that the magnitude and rate of climate change and associated risks depend strongly on near-term mitigation and adaptation actions”.

60.62. Related to the above, the IPCC also highlights that **efforts to avert and minimize loss and damage** have limits, and that they do not prevent all losses and damages, even before reaching those limits:

- First of all, the IPCC stresses that “near-term actions that limit global warming to close to 1.5°C would substantially reduce projected losses and damages related to climate change in human systems and ecosystems, compared to higher warming levels, **but cannot eliminate them all**”.
- Second, not only the IPCC recognizes that soft limits to some human adaptation have already been reached as well as hard limits in some ecosystems, and that with increasing global warming losses and damages will increase and additional human and natural systems will reach adaptation limits, but it also stresses that “**adaptation does not prevent all losses and damages**, even with effective adaptation and before reaching soft and hard limits”.

61.63. Finally, the IPCC points out to **existing gaps in addressing loss and damage**, when it concludes that “losses and damages are unequally distributed across systems, regions and sectors and **are not comprehensively addressed by current financial, governance and institutional arrangements**, particularly in vulnerable developing countries”.

62-64. As a corollary, not only the above reinforces the specific messages above on mitigation and adaptation, which are related to **averting and minimizing** loss and damage, but it also showcases the need for more action and support for **addressing** loss and damage that results from the adverse impacts of climate change.

E.) GST messages re FINANCE

63-65. In order for all this “Paris-aligned ambition” to happen, it is fundamental to enable a shift in the financial system so to drive the estimated annual flows of at least USD 4-5 trillions towards climate investments for mitigation, adaptation and loss and damage response, and ultimately to ensure that all financial decisions taken at the global, regional, national, local and individual levels, are consistent with low emissions, resilient development pathways, as envisaged in Article 2.1c of the Paris Agreement.

64-66. Article 2.1c), being one of the long-term goals of the Paris Agreement subject of assessment under the GST, can act as an enabler and an amplifier of efforts to realize Article 2.1a) and 2.1b) and its operationalization should reflect the interconnection of finance flows to the overall ambition of the Agreement so to keep temperature increases to below 1.5°C and building resilience. From this perspective, Article 2.1c) relates to all financial flows; public and private, domestic and international, green and brown, and all Parties are obliged to promote finance flows to be consistent with decarbonization and resilience.

65-67. The climate crisis needs a system designed to marshal the investment, financing, market and consumption choices of relevant stakeholders –governments, development finance institutions, commercial financial institutions, private equity, venture capital, infrastructure funds, institutional investors, credit rating agencies, corporate actors (banks, asset managers, pension funds, insurers, credit rating agencies, accounting firms, shareholder advisory services, enterprises), households and project developers– to foster climate-compatible development pathways.

66-68. Hence, the GST1 outcome must highlight the scale of support and financial system change required to achieve 1.5 °C, and outline the main steps to achieve it.

67-69. One first step in this direction is to adopt a perspective of net climate finance. The 2020 Standing Committee on Finance (SCF) Biennial Assessment Report estimates climate finance flows for 2017-2018 around USD 775 billion, while fossil fuel investments add up to USD 977 billion and fossil fuel subsidies to USD 472 billion per year, with losses from natural catastrophes amount to USD 339 billion (Figure 1).

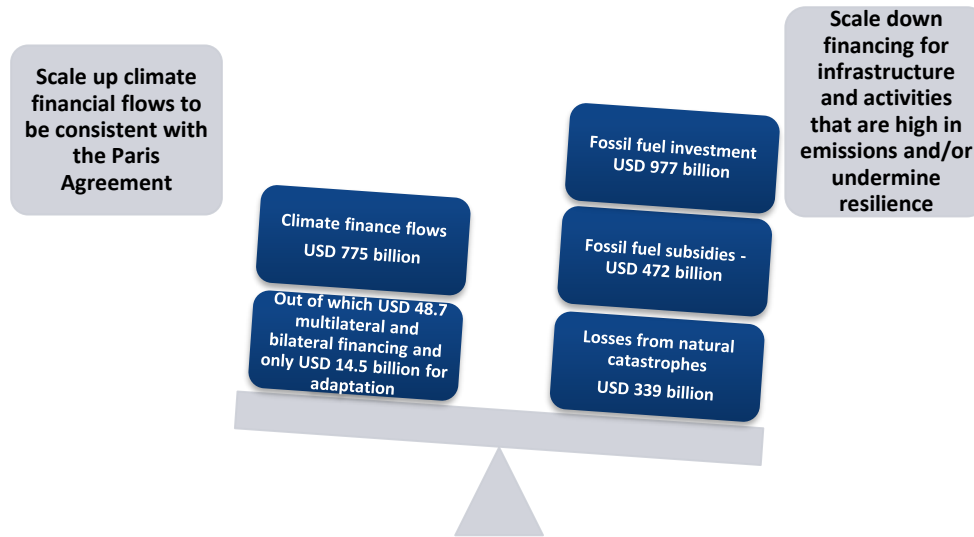


Figure 1. Net Climate Finance
Sources: 2018 & 2020 SCF Biennial Assessment and Overview of Climate Financial Flows

69.70. This suggests that current net climate finance is at least *minus* USD 1tn, when what is required is at least *plus* 5bn. The chart below aims to illustrate this by presenting finance flows which are aligned with global climate objectives as positive, and those that are misaligned as negative. The left side of the chart helps visualise the current net position, which is negative, while the right part displays an indicative scenario in which the net figure is positive and large enough to be compatible with the Paris Agreement (Figure 2).

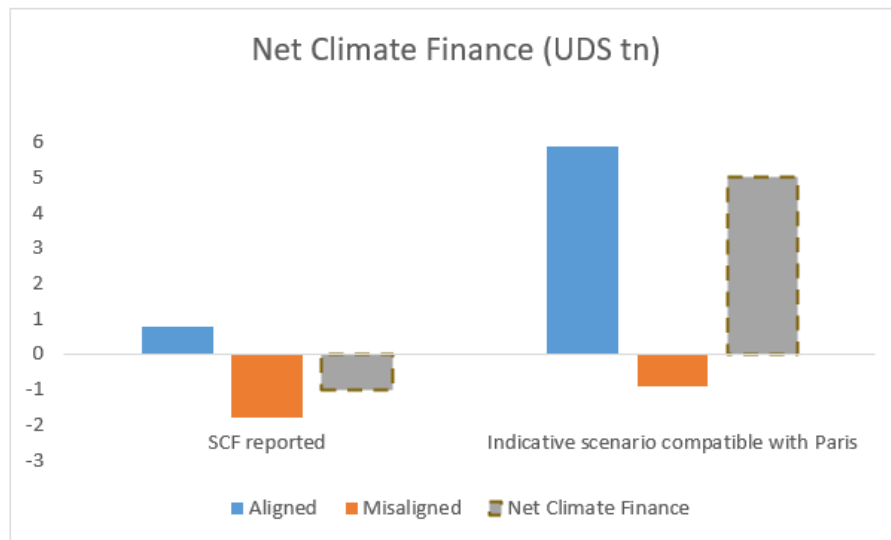


Figure 2: Reported Net Climate Finance vs Indicative estimate of what is required to achieve the Paris Agreement.

Source: AILAC analysis

69.71. Current financial flows show a very unbalanced picture, one that illustrates that for addressing climate change, it does not suffice to scale up climate funding, rather a more

comprehensive approach of net climate finance (i.e. the value of climate finance flows minus financial flows to high-emissions and maladaptive activities) so as to gradually eliminate financing and investments towards fossil fuels – in accordance with the latest decision made by the CMA in Glasgow “to phase out inefficient fossil fuel subsidies” - and high-emissions activities; and lead to avoiding locking in, while low-emission technologies receive a sustained increase in financing and just transition policies are put into work. It also means divesting from activities that create or increase physical risks to communities and society, and proactively supporting or incentivizing activities that directly help adaptation and resilience or enable more climate-resilient development.

- Developed countries must commit to implement Article 2.1c, both in relation to domestic and international financial flows, including, amongst other areas, through enabling carbon pricing, fossil fuel subsidies reform, greening development finance flows, green budgeting and macroeconomic modelling and public levers to drive climate finance consistency,
- Financial support and capacity building support from developed countries to developing countries in facilitating applying climate finance consistency, inter alia, to:
 - Align public and private financial flows to the implementation of NDCs and long-term low emissions, resilient development and just transition strategies
 - Enable public levers to drive climate finance consistency (i.e. monetary/financial policy and regulation (standards, plans, accounting systems and lending requirements), fiscal policy (taxation, levies, royalties, public procurement, price support or controls), information instruments (certification and labelling, transparency initiatives, disclosure requirements), public finance and use of different financial instruments (loans, grants, guarantees, equity, insurance))
 - Set up national MRV systems for climate finance consistency
 - Set up green taxonomies
 - Enhance the ability of national and local environments to attract green private finance and provide incentives to low-emissions activities
- Enhanced transparency in relation to the implementation of Article 2.1c in order to provide high-quality detailed information to be taken into account in the Global Stocktake, as well as inclusion in the reporting of the provision and mobilization of financial support to developing countries for the specific purpose of enabling climate finance consistency, through an additional column to CTFs of support provided and mobilized for 2.1.c, which should be added up and assessed as an input to the GST.
- Increased engagement with different financial stakeholders (i.e. governments, development finance institutions, commercial financial institutions, institutional investors, corporate actors and households) through a guiding framework and regulatory guidance that provide with concrete signals and benchmarks over climate finance consistency to marshal necessary investments towards climate-compatible, sustainable and resilient infrastructure and technologies, and avoid stranded assets

70-72. This guiding framework for the abovementioned stakeholders should include the mainstreaming mitigation and adaptation climate considerations into investment decisions, policies and planning and align portfolios with the long-term goals of the Paris Agreement starting by aiming to transition investment and budgetary portfolios to net-zero GHG emissions and climate resilient development by 2050 and to disclose climate-related risks and opportunities,

including with regards to the organization's budgetary/businesses/strategy/financial planning as well as its metrics and targets, and the carbon footprint of investment and budgetary portfolios.

71.73. Under this approach, the Technical Dialogues for the GST must address discussions on climate finance as the staging enabler to the guidance that it shall provide in terms of financial transformation, thus making it clear that climate finance and means of implementation are not an end game in itself but rather **the instruments that help deliver the transformation required to achieve the Paris Agreement's long-term goals which won't be met in the absence of significant and substantial changes to the global economic system, to the ways we produce and consume, and to the resources we use to enable economic growth.**

F.) Reflections on the implications of the Technical Dialogues on the GST outcome

72.74. This submission has highlighted overarching messages around the need for systems transformations and their high-level implications, followed by more granular thematic messages that present greater technical detail about the type of guidance the GST should provide to Parties so that its outcome enables them to formulate and implement updated NDCs and LTSs in line with the scientific requirements of the Paris Agreement goals.

73.75. AILAC is aware of how much is at stake in the first GST: only a successful GST now can give us confidence that the Paris Agreement is fit for purpose to address the climate crisis, because our implementation to date has been sorely lacking. Hence, in order to set straight our collective course, the outcome must satisfy the Paris needs on multiple levels:

- At the highest level, the GST outcome must present concise, decisive statements that put the latest climate science at the centre of each Party's commitments under the Paris Agreement.
- In practical terms, it must provide decisionmakers across the world with tangible advice on how to address specific challenges, so that the commitment to high-level principles can be reflected in concrete measures across sectors, societies, markets, and ecosystems.
- Finally, it must provide all Parties with a framing within which we can build a shared narrative of how we will collectively achieve these unprecedented changes. The key challenges and trade-offs that have hindered climate progress must be placed at the centre of the UNFCCC process.

74.76. In this light AILAC invites the cofacilitators of the GST Joint Contact Group to reflect upon:

- The potential structure of the GST Outcome, which could include decision text containing the most important high-level messages, accompanied by lengthier annexes with technical information and references to technical and scientific literature;
- The potential framing of the key trade-offs on which climate success will depend, in order to direct limited negotiation time to the most critical issues, not seeking to pre-judge the results of negotiations but rather aiming to ensure that the most crucial questions are addressed.
- A potential process of future follow-up to the GST, so that future NDC formulation and implementation can be adequately supported on an ongoing basis in light of the GST outcome, without Parties having to wait until the next GST to know if they are on track.

G.) Concluding remarks

75.77. AILAC appreciates the inclusive nature of the GST process to date and looks forward to the forthcoming Technical Dialogues to further our deliberations with Parties and Non-Party Stakeholders. We urge all participants to be flexible, constructive, and to recognize that our only hope of success lies in ensuring all Parties work in the spirit of unprecedented climate ambition in line with the latest available science.