
A Solutions-Oriented Approach to the Global Stocktake

1. To add real value and make a difference, the global stocktake (**GST**) process must send clear and specific signals as to what Parties and non-Party stakeholders (**NPS**) should do after COP28 in order to achieve the goals of the Paris Agreement and avoid catastrophic climate change that is beyond our adaptive capacity.
2. While the GST is a unique opportunity to deliver insights that will inform enhanced nationally determined contributions (**NDCs**), an effective GST will also need to reach beyond the UN climate architecture to catalyze effective ambitious action and implementation.
3. In that context, GST outputs could usefully be conceptualized in three tiers:
 - a limited number of high-level **clear signals/high level asks** that catalyze the shift of the global economy towards the achievement of the goals of the Paris Agreement;
 - a defined set of specific, available and implementable **high impact opportunities** to enhance and implement ambition. These must speak to constituencies (such as national level policy makers and NPS) best placed to convert the signals/high level asks into action. These opportunities should be supported by accessible and scaled up means of implementation; and
 - a consolidated **technical resource** that Parties and NPS can draw on when developing and implementing climate action, consistent with the goals of the Paris Agreement.





4. This submission focuses on the top two tiers of GST outputs (clear signals and high impact opportunities) and in that context begins to suggest some contours of a package for COP28 across mitigation, adaptation and loss and damage (**L&D**), and means of implementation. The suggestions made are not comprehensive, but rather pick out high-impact, near-term opportunities for action and support.¹ Suggested solutions are intended as global in nature and/or scope, but future work will consider the need for differentiation and support.
5. The GST will need to consider cross-cutting issues, like L&D and equity, as well as linkages and co-benefits between these outcomes/solutions, which will be explored through the GST process and also in transition from the technical process to the political phase of the consideration of outputs. C2ES will address these aspects further in future publications.
6. This submission is offered as a contribution to the ongoing discussion under the GST and represents work in progress which C2ES will test and further refine with thought leaders and key experts ahead of the conclusion of the GST.²

Mitigation

Signal/high level ask	Reduce methane emissions from the fossil fuel sector by 75% by 2030, by
High impact opportunities/solutions	<ul style="list-style-type: none"> • Setting standards for equipment technology, leak detection and repair, and flaring and venting.
	<ul style="list-style-type: none"> • Measuring and reporting methane emissions.
	<ul style="list-style-type: none"> • Regulating upstream emissions, including by pricing emissions or setting performance or procurement standards.

¹ The work prioritizing these outcomes and solutions draws on previous C2ES work, “Distilling Critical Signals from the Global Stocktake,” setting out criteria policymakers and decision-makers may wish to consider in prioritizing near-term, high-impact climate action and support. This work also builds on prior work setting out landscape analyses of opportunities for enhance ambition in mitigation,¹ adaptation,¹ and finance.¹ See: <https://www.c2es.org/document/mitigation-landscape-analysis-themes-and-trends/>; <https://www.c2es.org/document/landscape-analysis-of-adaptation-opportunities-for-climate-ambition/>; and <https://www.c2es.org/document/climate-finance-landscape-analysis-themes-and-trends/>.

This submission acknowledges the many developments since their publication, including but not limited to, new scientific reports, new and expanded international cooperative initiatives, as well as the conduct of the first and second Technical Dialogues of the GST. To the extent possible, these outcomes and solutions take those developments into account.

² To provide feedback please contact HuangJ@c2es.org or guilanpour@c2es.org. For more information on our GST work, please see <https://www.c2es.org/content/global-stocktake-an-opportunity-for-ambition/>



Signal/high level ask	Increase the share of renewable sources—particularly wind and solar—in global electricity generation, aiming for 55-90% by 2030 and 98-100% by 2050, while simultaneously reducing the share of fossil sources, by
High impact opportunities/solutions	<ul style="list-style-type: none"> • Incentivizing the deployment of renewable energy technologies and/or setting renewable energy targets or mandates based on national circumstances.
	<ul style="list-style-type: none"> • Ending investments in new fossil fuel-based generation capacity and phasing out existing fossil fuel-based generation capacity, in a just and equitable manner, including by pricing or capping emissions from the electricity sector.
	<ul style="list-style-type: none"> • Addressing regulatory barriers to the deployment, scale up, and use of renewable energy technologies, including grid infrastructure and storage.
	<ul style="list-style-type: none"> • Improving the integration of renewable energy sources into increasingly flexible electricity grids.
Signal/high level ask	Increase the share of electric vehicles (EVs): <ul style="list-style-type: none"> • in light-duty vehicle (LDV) sales to 75-95% by 2030 and 100% by 2035 • in bus sales and medium- and heavy-duty vehicle sales to 60% and 30% by 2030, respectively, by
High impact opportunities/solutions	<ul style="list-style-type: none"> • Incentivizing a shift toward EVs and away from internal combustion engines through purchase subsidies or mandates, charging discounts, regulations that cap emissions or limit emissions intensity, and/or gas taxes that reflect the negative impacts of fossil fuel combustion.
	<ul style="list-style-type: none"> • Investing in battery technology improvements and the coordinated expansion—and standardization—of charging infrastructure, especially on priority routes.
	<ul style="list-style-type: none"> • Phasing out internal combustion engines and tightening of regulatory trajectories across key markets in a coordinated way.
	<ul style="list-style-type: none"> • Providing alternatives to vehicles by incentivizing modal shifts and expanding viable transportation options, including by investing in electrified public transit.
	<ul style="list-style-type: none"> • Implementing strong normative safeguards in mining operations for lithium, cobalt, and other critical minerals for renewable energy technologies.



Signal/high level ask	Halt and reverse forest loss and land degradation by 2030, by
High impact opportunities/solutions	<ul style="list-style-type: none"> • Conserving healthy, living forests, and supporting the livelihoods of forest dependent communities, including through large-scale incentive programs.
	<ul style="list-style-type: none"> • Curbing and reversing deforestation and degradation, including by expanding conservation areas, instituting moratoria on forest conversion, securing tenure and protection of Indigenous territories, encouraging sustainable land-use practices, developing sustainable land use and management plans, and decreasing pressure from the agricultural sector.
	<ul style="list-style-type: none"> • Implementing moratoria on products associated with deforestation and providing support for monitoring and verification of deforestation-related products.
	<ul style="list-style-type: none"> • Integrating local communities and civil society in the planning, implementation, and monitoring of conservation activities to ensure good governance, accountability, rule of law, and the upholding of human rights.
Signal/high level ask	Reduce the carbon intensity of building operations, minimize embodied emissions, and increase the rate of building retrofits to 3.5% by 2040, aiming for all new and existing assets to be net zero across their life cycles by 2050, by
High impact opportunities/solutions	<ul style="list-style-type: none"> • Electrifying energy end-use in buildings and improving energy efficiency to address “operational” emissions, including by enacting increasingly stringent (and/or more broadly applicable) building energy codes and appliance performance standards, mandating the use of fossil-free energy sources, and/or offering incentives for efficient appliances.
	<ul style="list-style-type: none"> • Adopting green procurement policies or revising construction codes to require the purchase of low-carbon construction materials (e.g., low-carbon cement).
	<ul style="list-style-type: none"> • Utilizing innovative finance models that reduce up-front costs.



Adaptation and Loss & Damage

Signal/high level ask	Achieve and maintain a climate resilient world by 2030, by
High impact opportunities/solutions	<ul style="list-style-type: none"> Establishing a goal to conserve, protect, and restore land and freshwater ecosystems by 2028.
	<ul style="list-style-type: none"> Establishing a goal to significantly enhance resilience and reduce exposure for all coastal communities impacted by sea level rise by 2028, including by conserving, protecting, and restoring coral reefs, coastal wetlands, mangroves, and kelp forests, and leveraging other nature-based solutions.
	<ul style="list-style-type: none"> Establishing a global goal on observation to promote and measure progress by 2028 in the global climate observing system and to strengthen linkages to regional and national climate observing systems.
	<ul style="list-style-type: none"> Fostering sustainable agriculture by 2030 including by halving the share of food production lost and per capita food waste, promoting that healthy alternative proteins capture 15% of the global meat and seafood market and increasing 1.5 times the global consumption of fruits, vegetables, seeds, nuts and legumes.
Signal/high level ask	Halt and reverse biodiversity loss by 2030, by
High impact opportunities/solutions	<ul style="list-style-type: none"> Protecting 45 million hectares (lands and inland waters), sustainably manage 2 billion hectares, and restore 350 million hectares of land, securing tenure of indigenous and local communities, and using nature-based solutions by 2030. These measures should include safeguards to protect with biodiversity and human rights safeguards, and instruments to improve food and water security and livelihoods.
	<ul style="list-style-type: none"> Expanding support for ecosystem stewardship by Indigenous Peoples and local communities, including by strengthening legislation surrounding land rights for indigenous peoples and local communities according to traditional values of land tenure.
	<ul style="list-style-type: none"> Enhancing Marine Protected Area (MPA) networks by bolstering national legislation for MPAs, incorporating Climate Vulnerability Assessments into MPAs, and integrating local communities and Indigenous Peoples in the planning and management of MPA networks.
	<ul style="list-style-type: none"> Enhancing Nature-based Solutions in urban environments.
Signal/high level ask	Strengthen international efforts to improve the assessment and review of global progress on adaptation and resilience by 2028



Signal/high level ask	Strengthen international funding arrangements for L&D, by
High impact opportunities/solutions	<ul style="list-style-type: none"> Cooperating to establish mechanisms, means, and strengthening capacity for addressing non-economic and slow onset events, particularly at regional and national levels.
	<ul style="list-style-type: none"> Strengthening the preventive approach to disaster risk reduction and humanitarian assistance through coordination and integration with adaptation planning and implementation activities.
Signal/high level ask	Further accelerate efforts to provide scaled up financial resources that achieves a balance between adaptation and mitigation
Signal/high level asks	Consider in adaptation planning and implementation process interventions that address social inequities, justice and ecological vulnerabilities, including by giving appropriate consideration to gender, Indigenous and local knowledge and practice

Means of implementation

Signal/high level ask	Acknowledges the international debt crisis, the need to find new ways of financing climate action, as well as improving the quality of international climate finance, by
High impact opportunities/solutions	<ul style="list-style-type: none"> Canceling, suspending, or restructuring debt to integrate climate-related needs and actions.
	<ul style="list-style-type: none"> Increasing the availability of grants and concessional instruments to developing countries.
Signal/high level ask	Urges Parties, MDBs and NPS, in particular financial institutions, to increase the proportion of investments in renewable energy and to adopt policy frameworks that facilitate this increase, inter alia by phasing out of fossil fuel subsidies, while also implementing response mechanisms for a just transition in a planned and locally-specific manner, by
High impact opportunities/solutions	<ul style="list-style-type: none"> Increasing the share of global investments in renewable energy by 2030.
	<ul style="list-style-type: none"> Tying fossil fuel subsidies reform to broader economy-wide just transition plans, and provide support to developing countries to implement it.
	<ul style="list-style-type: none"> Enhancing understanding, disclosure and management of climate-related financial risks and opportunities by institutional investors and corporate actors.
	<ul style="list-style-type: none"> Streamlining planning permissions, and promote grid connections.



Signal/high level ask	Stresses the need for all Parties to take international and domestic action towards shifting finance flows to make them consistent with pathways towards low greenhouse gas emissions and climate resilient development
Signal/high level ask	Provide capacity building support to developing countries to align financial flows with the Paris Agreement goals
Signal/high level ask	Emphasizes developed country Parties' continuing obligations in the provision and mobilization of climate finance to developing countries under Article 9 of the Paris Agreement, by
High impact opportunities/solutions	<ul style="list-style-type: none"> • Providing capacity building support to developing countries to operationalize Article 2.1(c), including by putting in place monetary/financial policy and regulation, fiscal policy, information instruments, public finance and use of different financial instruments. • Divesting investments from polluting industries and sectors and scale up climate-smart investments. • Reviewing and adjusting the investment plans and portfolios of multilateral development banks, international financial institutions and private investors to align with the 1.5 degrees Celsius limit.