CENTRE FOR SCIENCE AND ENVIRONMENT

LEAVES OF IMPORTANT SURVIVAL TREES IN INDIA —MAHUA, KHEJDI, ALDER, PALMYRA AND OAK

CSE India: Submission on Topics for the 2024 Dialogues under the Mitigation Work Programme

Submission by the Centre for Science and Environment (CSE), New Delhi, India

Issue: Sharm el-Sheikh mitigation ambition and implementation work programme

Deadline: 01/02/2024

Title: Parties, observers and other non-Party stakeholders to submit suggested topics in line with the scope of the work programme referred to in paragraph 4 of FCCC/PA/CMA/2022/L.17, para. 12 to be discussed under the dialogues

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TOPICS FOR 2024 AND BEYOND

UNFCCC fora extensively discuss the need to raise mitigation ambition but offer limited spaces to highlight the specific hurdles faced in enabling these efforts, both from a political perspective, and a techno-economic perspective. The Mitigation Work Programme (MWP) offers one such platform, and this opportunity for concrete, good-faith exchange of useful knowledge, and subsequent commitments towards means of implementation, must not be lost.

In 2023, discussions at the MWP were advanced through the Global Dialogues and Investment Focused Events, providing a constructive space for countries to discuss the opportunities and barriers to scaling up mitigation ambition. The first Global Dialogue appropriately focused on accelerating a just energy transition, a crucial discussion for emerging and developing economies who are facing pressures to decarbonize their energy systems whilst possessing limited means to enable the same. The second Global Dialogue initiated a sectoral discussion on transportation, the fastest growing sector in terms of emissions.

Discussions in 2024 and beyond **must retain the spotlight on accelerating the just energy transition but focused through further sector-specific discussions**. Discourse on raising mitigation ambition at UNFCCC fora is in dire need of accompanying evidence on the barriers and challenges faced by each sector in mitigating emissions.

The First Global Dialogue addressed the power sector with presentations on renewable energy, grid and energy storage, and energy efficiency. Deliberations on the **power sector** must continue in 2024

to capture a wide range of views, particularly bearing in mind the need to meet growing electricity demand whilst decarbonizing the grid in emerging economies.

The **industrial sector**, accounting for 37% of global energy consumption, is heavily dependent on fuels such as coal or coal-based power and involves emission-intensive raw materials and processes. It is thus faced with the need to shift towards utilizing renewable energy, electrifying heat-intensive processes, implementing material circularity, and adopting energy-efficiency measures. Currently financing for the industrial energy transition is limited, and emerging economies also face the impacts of changing trends in global trade. The MWP must address the opportunities and barriers to industrial decarbonization, particularly in hard to abate sectors, and the corresponding financing and technology needs for the same.

Energy consumption for **space cooling** has more than tripled since the 1990s. Emissions from cooling are expected to double by 2030, and it will be one of the top drivers of global electricity demand. By 2050, space cooling will consume as much electricity as China and India today. For India, the Ministry of Environment, Forests and Climate Change predicts that cooling demand in buildings will grow 11-fold by 2037–38. Strategies to scale up cooling solutions that are diverse and comprehensive and do not rely on conventional energy-intensive practices need to be addressed at the MWP. With extreme heat events increasing worldwide, the demand for cooling and the consequent emissions are only going to grow. It is, therefore, important to ensure that cooling needs are met equitably and sustainably.

Approximately 2.3 billion individuals lack access to **clean cooking** facilities, and depend on solid biomass, kerosene, or coal. In India, over 120 million households burn these fuels every day, twice a day. Each year, emissions equivalent to 1.9-2.3% of the global total arise from burning wood-based fuels. Furthermore, household air pollution, primarily stemming from cooking smoke, is associated with approximately 3.7 million premature deaths annually. Amplifying efforts to scale up clean cooking not only tackles climate change but also yields substantial global health enhancements, empowers women, and fosters local economic growth. But the shift to electric cooking methods in developing countries currently faces high upfront costs, unreliable power supply, and other challenges that the MWP must deliberate.

FACTORS FOR SUCCESS

- **Need for political buy-in**
  There is a missing link between techno-economic insights shared at the Global Dialogues, and political negotiations in Bonn and the COP summits. At the Global Dialogues, presentations by industry practitioners, multilateral organizations, and think tanks need to be complemented by stronger political buy-in from Party governments. Key Ministries from participating Parties governing areas such as energy, industry, natural resources and transportation must be represented at the MWP, to share findings from the ground.

- **Global South-specific issues need airtime**
  Mitigation challenges in the Global South must receive adequate focus. Emerging economies face specific challenges such as meeting growing energy demand whilst decarbonizing the energy system, scaling up clean cooking and adopting sustainable cooling. Other priorities such as the need for non-debt creating finance for mitigation must also be centered.

- **Space must be given to the Global South to proactively participate, highlight domestic imperatives, and define clear pathways to demand financing and means of implementation**
  Developing countries have been wary of the MWP in negotiations, emphasizing the need for it to be non-prescriptive and non-punitive. Concerns about the relevance of the MWP, and its distinction from the Global Stocktake process have been raised, especially as developed countries have tended to focus heavily on mitigation at UNFCCC fora, leaving developing country priorities, such as climate finance, adaptation, and loss and damage to be fought for by developing country negotiators. Moreover, developing countries, being largely low contributors to historical emissions, have resisted being asked to bear an equal burden of mitigation today.

  Yet, the imperative for worldwide mitigation has now become urgent with worsening climate impacts. The IPCC states that without rapid, deep and sustained mitigation and accelerated adaptation actions, losses and damages will continue to increase, and will disproportionately affect the most vulnerable populations. At the MWP, developing countries must be given the space to bring forth their regional challenges and successes, case studies, implementation barriers and need for financing and other means of implementation. Over time, the MWP infrastructure and process can benefit them as they build their own domestic sectoral mitigation plans.

  Despite being small contributors to the climate crisis, developing countries will benefit from proactively engaging on mitigation issues, and developing domestic sectoral mitigation plans. Doing so will ensure that they are on a low-carbon growth path, aligned with their specific domestic imperatives. This shields them from worsening climate vulnerability, and harnesses multiple co-benefits (tackling air pollution, addressing stranded asset risk, upholding economic competitiveness in the new green economy). Proactive engagement and mitigation planning also helps avoid the impact of top-down prescriptions that may fund solutions not suitable for them. Engaging with the MWP process and developing domestic sectoral mitigation pathways will help them to identify gaps in financing, implementation, and technology availability, and seek international cooperation.

- **Global North must ensure that the way forward is based on funding and fairness**
  Developed countries must participate in the MWP in good faith, acknowledging their responsibility for historical emissions and their duty to take the lead in mitigation and decarbonization. The MWP should not be utilized to dilute equity and the principle of common

but differentiated responsibilities. Means of implementation from developed to developing countries must be prioritized, with specific channels and partnerships determined for developing countries to benefit from the MWP and receive support for their domestic mitigation pathways, whether in the form of non-debt creating finance, technology, or capacity building.

RESOURCES BY CSE

- Decarbonizing the Cement Sector in India
  https://www.cseindia.org/decarbonizing-india-cement-sector-11867
  The cement sector is a hard-to-abate sector in terms of greenhouse gas emissions, but it is an equally critical contributor to the economic development of the country. India is the second largest producer of cement in the world and plans to almost double its production by 2030. Under a business-as-usual scenario, the CO2 emissions from cement production in India are estimated to almost double by 2030. This report provides a detailed insight into the GHG emissions of the Indian cement sector and its future emission scenarios for 2030 -the report provides, based on available information, company-wise data on emissions, which will help design the road ahead. The report suggests a roadmap for the sector, highlighting the pathways for GHG emissions reduction. The assessment clearly finds there are huge opportunities to bend the carbon dioxide curve for this emission intensive sector, but it will need increased utilization of alternate materials and waste streams along with defining and increased production of low carbon cement, aided with policy interventions, inter-sectoral partnerships, enabling infrastructure, development of futuristic technologies and adequate funds.

- Decarbonizing the Iron and Steel Sector in India
  https://www.cseindia.org/decarbonizing-india-s-iron-and-steel-sector-report-11434
  The iron and steel sector is a hard-to-abate sector in terms of greenhouse gas emissions, but it is an equally critical contributor to the economic development of the country. India is the second largest producer of crude steel in the world and plans to almost triple its production by 2030. Under a business-as-usual scenario, the CO2 emissions from crude steel production are estimated to grow to almost 2.5 times by 2030. This report provides a detailed insight into the GHG emissions of the iron and steel sector and its future emission scenarios for 2030 -the report provides, based on available information, unit and company-wise data on emissions, which will help design the road ahead. The report suggests a roadmap for the sector, highlighting the pathways for GHG emissions reduction. The assessment clearly finds there are huge opportunities to bend the carbon dioxide curve for this emission intensive sector, but it will need planning, technology and adequate funds.

- The Cooling Web: Calibrating cooling-energy requirements in buildings. Volume 1
  https://www.cseindia.org/the-cooling-web-calibrating-cooling-energy-requirements-in-buildings-volume-1-11786
  The Cooling Web is a guidance document and a compilation of case studies that brings out a range of cooling solutions that are diverse and comprehensive and do not rely on conventional energy-

guzzling practices. This involves measures to enhance microclimate, thoughtful designs for building envelopes, judicious selection of material, and context-specific cooling approaches. These solutions blend traditional wisdom on passive design with modern techniques and provide optimized solutions so that energy consumption is minimized. These solutions are also a guide towards achieving a rational and climate-appropriate cooling ecosystem that not only ensures resource efficiency but also maintains thermal comfort for building occupants.

- India's Transition to E-Cooking
  https://www.cseindia.org/india-s-transition-to-e-cooking-12009
  Despite Indian government efforts over seven decades to enable access to clean cooking fuels, about 500 million people in India still cook on polluting fuels such as wood, biomass, animal dung cakes, agri-residue and kerosene. The resulting indoor air pollution causes about 0.6 million premature deaths every year, and untold damages in the form of serious health risks. This report found that it also leads to CO2 emissions of over 350 million tonne every year in the country—which is more than India's transport sector or industrial sector's emissions. This report aims to provide a roadmap for large-scale adoption of e-cooking for rural households in the country. As rural India accounts for two-thirds of the total number of households and access to other means of clean cooking, such as LPG, is limited in rural areas, this report emphasizes that the intervention will have more impact in rural households than its urban counterpart.

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About CSE

Founded in 1980, the Centre for Science and Environment (CSE) is a public interest research and advocacy organisation based in New Delhi. CSE conducts research on, lobbies for and communicates the urgency of development that is both sustainable and equitable.

CSE has been well known for influencing the design of international climate policy since well before such policy was enshrined in formal institutions - whether it is the landmark paper released in 1991 by Sunita Narain and Anil Agarwal, calling for a decolonisation of carbon budget accounting, or CSE's commentary on every UN climate meeting since 1992. CSE has led the discourse in climate policy for over three decades advocating for equity, the principle of Common but Differentiated Responsibilities, and investing in resilient economies for the poor.

The Climate Change Programme at CSE is committed to championing the study of the most pressing climate issues relevant for the Global South. CSE's publications on climate-critical topics, its presence at UNFCCC proceedings such as COP summits and Subsidiary Body meetings, public outreach and advocacy, media engagement, and training programmes are designed to create multipliers in society for climate action.