

Concept Note

Track 1- Energy and Industry

1. Overall scope and objectives of regional Climate Weeks in 2023

The recent IPCC AR6 synthesis report confirmed that the world is not on track to meeting the goals of the Paris Agreement. According to the report, emissions need to fall by 43% by 2030 compared to 2019 levels to avoid the worst impacts of climate change. However, projected global GHG emissions from the 2022 NDC Synthesis Report, which analyses the latest available NDCs covering 193 Parties to the Paris Agreement, make it likely that warming will exceed 1.5 degrees unless more ambitious mitigation measures are implemented immediately. Similarly, current actions toward adaptation and resilience do not match the ambition for transformational adaptation and climate resilient development at large.

The increasing climate change impacts will affect all regions and in particular the most vulnerable groups and communities. At the same time, it is at the regional, national, and local level where climate change solutions are being implemented, lessons being learned, and experiences are being shared and cooperation is forged to enhance climate action.

The first global Stocktake, which will conclude at COP 28 in UAE in December this year, offers a unique opportunity to call for decisive change and for urgently responding to the need for accelerating progress by collectively embarking on a swift and deep transformation of our economic and social systems.

The 2023 Regional Climate Weeks provide a timely opportunity for policymakers, practitioners, business and civil society to exchange on climate solutions, approaches for overcoming barriers, and opportunities realized in the different regions. . The aim is to provide region focused contributions across four major systems-based tracks to inform the global Stocktake:

1. **Energy systems and industry;**
2. **Cities, urban and rural settlements, infrastructure and transport;**
3. **Land, ocean, food and water;**
4. **Societies, health, livelihoods, and economies.**

Such systemic transformation requires not only significant investments and uptake of innovative solutions well beyond the current levels of available climate finance, but also other types of enabling support. The costs and benefits of such global transformation are unevenly distributed within and across countries and regions hence we need to accelerate global and regional cooperation and support, in particular on climate finance, technology, and capacity-building, to ensure that the transformation is just, equitable and advances sustainable development.

Actions across the four systems-based tracks together with support, cooperation and just transition will allow us to course-correct and achieve the Paris Agreement goals and objectives.

The 2023 Regional Climate Weeks will also allow regional policymakers, practitioners, businesses and communities to showcase their achievements and lessons learned so far, how they intend to enhance their climate action and cooperation and also how they will ensure credibility of and trust in their climate pledges and initiatives to contribute to the required transformation across the above-mentioned systems-based tracks.

2. Expected overall outcomes of regional climate weeks in 2023

The events organized and delivered under all the systems-based tracks are expected to:

- Contribute substantively to the GST process by identifying region relevant actions and timelines necessary to accelerate the progress needed to keep the 1.5 C trajectory reachable.
- Enable and support the dissemination of valuable of good practices and lessons learnt, facilitating the identification of impactful initiatives for replication or inspiration at local, subnational, national and regional level.
- Provide a platform that fosters constructive dialogues between Parties and non-Party stakeholders creating opportunities to explore partnerships and /strengthening of networks in the regions.
- Provide insights for enhancing the engagement of non-Party stakeholders, including regional and local governments, the private sector, investors, youth, science, academia, indigenous people, and others, thereby increasing effectiveness and active participation.

3. Linkages between tracks

The four tracks are designed with a view to provide region focused contributions to inform the global stocktake at COP28. The tracks are also developed in such a way as to provide opportunities to advance regional and local dialogues and individual and collective climate action at both regional and local level by taking regional priorities into consideration.

Events/sessions under each thematic track are cross-cutting and are linked to each other. For instance, water, **energy, industry, and ecosystems** are central to the **economic and social development** of any society. Energy is particularly essential for most activities including the provision of daily services like lighting, cooking, and heating, etc. Access to energy is critical to **cities, urban and rural settlements, transport systems, infrastructure, and waste management**. Yet there is a need for the global community to shift to a swift and deep transformation across a wide spectrum of economic, environmental, and social systems in pursuit of climate resilient development.

Land, water, oceans, and food are key for **societal and economic development, livelihood and ecosystem services provision and food security**. There are evolving land uses –for urban expansion and food production while **water** is important for society's most essential needs hence a lever for sustainable development. Unsustainable land uses associated with urban expansion and infrastructural evolution cause degradation of natural ecosystems such as wetlands and forests, and subsequently resulting in loss of ecosystem services. The **ocean** on the other hand sustains **livelihoods, provides ecosystem services including those of aesthetic and cultural value** to many communities. Yet, climate change is increasing sea-level rise, ocean acidification and warming, de-oxygenation, and marine heat waves causing among other things increased inundation, biodiversity loss and ecosystem degradation (particularly coral reefs), and salinization of groundwater and soil, all of which interrupt food webs and ecological connectivity.

These impacts not only affect basic human needs, but they also have an impact on human and animal health. Indeed, there is growing acknowledgment that **health and climate change** are interlinked. This nexus is of particular importance for both **rural and urban settlements** and entails **gender, economic and policy dimensions**. For instance, **certain health conditions are caused by air pollution and transport in urban settlements**. In cities, **waste discharges to land, water and air** threaten the environmental integrity and thereby human health. Similarly, increased temperature projections in several regions across the world are threatening human, animal and planetary health thereby compromising livelihoods and economies dependent on natural systems.

The cross-cutting aspects of the four tracks offer an opportunity to encourage behavioural shifts, spark innovation, and encourage collaboration towards a just and transformative solutions at the regional and national levels.

4. Scope and themes of Track 1: Energy and Industry

To address climate change, the global community needs a swift and deep transformation across a wide spectrum of economic and social systems towards a low and eventually zero emissions, climate resilient world. The recently released synthesis report of the IPCC Sixth Assessment cycle lays out the science clearly to limit warming to 1.5°C with no or limited overshoot– GHG emissions need to peak before 2025 followed by rapid and deep GHG emissions reductions 43%, 60%, 84% compared to 2019 levels by 2030, 2035 and 2050¹. It is undeniable that to achieve the temperature goal of the Paris Agreement – holding global temperature rise to well below 2°C and pursuing efforts to limit temperature rise to 1.5°C – this decade is critical. This includes action on short-lived climate pollutants, such as methane. There are only seven years to establishing the necessary systemic transformation towards more sustainable, low-emissions economies and societies, and the energy transition will be its cornerstone. However, current nationally determined contributions (NDCs) were estimated to lead to a mere 0.3% reduction in GHG emissions by 2030 compared to 2019 levels, even if fully implemented, according to the 2022 NDC Synthesis Report. Given energy related emissions accounted for three quarters of global GHG emissions in 2019², it is urgent to increase the use of renewable energy sources as part of the global effort to achieve immediate, deep, rapid, and sustained reductions in GHG. The scale of investment required to match 1.5 degrees trajectories would need to be significantly higher even as global investment across energy transition technologies reached a record high in 2022 (IRENA, 2023).

And, while encouraging progress has been made in the energy sector in recent years putting the sector on a path towards decarbonization, led by increasing ambition in countries' climate action plans, increasing renewable capacity in energy mixes, and enhancement in investment in clean energy technologies, the scale, pace, and distribution of this change is not on track with where we need to be to achieve the goals of the Paris Agreement.

¹ IPCC AR6 SR

² IPCC AR 6: SPM B.2.1) In 2019, approximately 34% (20 GtCO₂-eq) of total net anthropogenic GHG emissions came from the energy supply sector, 24% (14 GtCO₂-eq) from industry, 22% (13 GtCO₂-eq) from agriculture, forestry and other land use (AFOLU), 15% (8.7 GtCO₂-eq) from transport and 6% (3.3 GtCO₂-eq) from buildings.

A radical, transformation, through just, and equitable transformation of the energy sector is an important and urgent piece of the puzzle to put the global community on the path towards achieving the goals of the Paris Agreement and moreover will provide countries with the opportunities to leverage the sustainable development and energy security benefits that such a transition can usher.

The Regional Climate Weeks offer an ideal platform to focus and exchange views on key transformational directions and opportunities for just energy transition in this critical decade and beyond, building on the latest scientific findings, while in recognizing and highlighting the regional specificities of the transition. These aspects could include:

- For the energy sector, these must include increasing the share of low-emission and renewable energy in the energy mix, dramatically increasing energy efficiency, phasing down unabated coal-fired power generation, phasing out inefficient fossil fuel subsidies, reducing methane (CH₄) emissions from coal, oil, and gas, and enhancing grid interconnectivity, energy system integration (including power, heat, cooling), decentralised energy production and diverse energy storage options to deliver a more resilient energy system that can maintain supply with increasing climate shocks .
- For the industry sector, these should include, energy and material efficiency improvements, circular economy, and fuel and material switching to cleaner alternatives.
- Likewise, crosscutting issues could include policy and innovations for clean energy and industry, channeling finance at the scale and speed required, while targeting this finance to country and regional priorities, among others. and supporting countries in achieving their climate and development goals through the energy transition and industry decarbonization.

5. Thematic Focus

The Thematic Focus of each Track of the Regional Climate Weeks in 2023 provides a broad non-exhaustive framework and can act as guidance for developing individual events and sessions to be aligned with the overarching narrative.

a. Planning and implementing policies and actions for the energy transition towards efficient and low GHG emission energy systems:

- The state of energy transition in the region – where we are and where we need to go as well as discussing national and sub-national decarbonization and net-zero carbon targets in energy and industry sector.
- Enhancing Ambition and Accelerating Action – Connecting immediate and medium-term actions with long-term planning and strategies on energy, industry and low-emission development (LT-LEDS). Scale-up credible climate action across subnational governments, companies of all sizes, sectors and regions, enabling them to deliver on meaningful commitments to reduce emissions at scale.
- Incorporating just transition, climate justice and energy security and climate adaptation and resilience aspects in planning for efficient and renewable energy systems: aligning long-term energy and emission reduction planning (such as LT-LEDS) in the region focusing on energy supply, power generation, energy security and critical sectoral energy demand growth (e.g., cooling and electric transportation from a policy and technology perspective).

b. Support for implementation and enabling environment to address barriers to action: financial, technological and capacity-building needs in the area of energy transition:

- Mitigation actions through carbon pricing and use of Article 6 mechanisms
- Regional perspectives on financing the energy transition– channeling finance flows and enhancing financial readiness for low emissions and climate-resilient development
- Partnerships and collaboration to accelerate the energy transition
- Catalyzing private sector capital towards clean energy by de-risking investments and by addressing investment barriers.
- Regional perspectives on capacity-building areas to transition the energy and industry sectors
- Introduce policies that incentivize renewable energy and promote energy efficiency

c. Innovation - promoting sustainable development:

- Creating a sustainable and resilient energy mix: energy resilience and low emission technologies, avoiding lock-in and phasing out high-emission systems and technologies while scaling up low and zero-emission alternatives
- Accelerating shift to circular economy, implement digitalization and smart solutions, district energy systems grids and deploy diverse energy storage systems.
- Challenges, opportunities, and socioeconomic effects of just energy transitions for sustainable development
- The role of technology and innovation beyond technology in accelerating the energy transition and decarbonize industry
- Integrating energy into urban planning to effectively reduce demand and optimise energy supply across end-uses (power, heat/cool, transport etc.)
- Creating an innovation space of thought leadership from a regional lens to:
 - a) Innovative business models and investment cases for 1.5 degrees and SDG aligned energy projects
 - b) Design roadmaps to drive industry-wide and/or region-wide policy adoption such as in cooling
 - c) Learn about the opportunities readily available for example on green hydrogen, storage systems, smart grids, integrated urban energy systems.
- Explore technology and innovation from regional stakeholders on:
 - a) digitization,
 - b) energy-efficiency solutions conservation, demand side management, and other opportunities that help address the intermittency in renewable energy production,
 - c) and addressing barriers to the clean energy transition for example given inadequate grid infrastructures designed to accommodate conventional energy sources.
- Integrated climate and clear air planning to harness health benefits – across household energy, transport, industry.

