Framework Convention on Climate Change

Technology Executive Committee

05 September 2023

Twenty-seventh meeting

19–21 September and 22 September 2023 (TEC-CTCN Joint session)

Concept note on the COP 28 high-level event on artificial intelligence for climate action

Cover note

I. Background

1.   As per Activity A.4.1 of its rolling workplan (2023–2027), the TEC is exploring the role of artificial intelligence (AI) and applied machine learning as enablers of climate solutions.

2.   At TEC 26, the TEC requested the open-ended activity group that supports the implementation of this activity to work on next steps for organizing an event at COP 28 to raise awareness of the role of artificial intelligence and applied machine learning in line with the agreed deliverable A.4.1.ii. for 2023. The TEC also requested the activity group to provide an update at TEC 27 on this matter.

II. Scope of the note

3.   The annex to this note is prepared to inform the discussions of the TEC with regards to the organization of a high-level event on AI for climate action, in collaboration with the incoming COP Presidency, to be held at COP 28 in Dubai, United Arab Emirates, in November-December 2023.

III. Expected action by the Technology Executive Committee

4.   The TEC will be invited to consider the concept note contained in the annex and provide guidance on further work on this matter, including on the:

    (a)   Objectives;

    (b)   Format;

    (c)   Draft agenda;

    (d)   Selection of potential speakers.

Annex

Concept Note on the COP 28 high-level event on artificial intelligence for climate action

I.   Background

1.   The UNFCCC Technology Mechanism Initiative on Artificial Intelligence (AI) for Climate Action #AI4ClimateAction is exploring the potential role of AI as a powerful technological tool for transformative adaptation and mitigation solutions in developing countries, particularly in least developed countries (LDCs) and small island developing States (SIDS). The UNFCCC Technology Mechanism is comprised of a policy arm, the Technology Executive Committee (TEC) hosted by UNFCCC and an implementation arm, the Climate Technology Centre and Network (CTCN) hosted by UNEP. The #AI4ClimateAction Initiative aims to deliver concrete and transformative results under the first joint work programme of the UNFCCC Technology Mechanism (2023–2027).

II.   Objectives

2.   The objectives of this event are to provide a space for policy discussion, awareness raising, and exchange of knowledge and experience among stakeholders on developing and deploying climate solutions powered by AI. The event will discuss various aspects of the application of AI in particular in developing countries, including LDCs and SIDS, and to help countries raise their ambition, accelerate the implementation of mitigation and adaptation actions to meet the goals of the Paris Agreement and achieve the SDGs while leaving no one behind.

III.   Format

3.   The event will feature high-level remarks, a high-level panel, showcases of AI-powered adaptation and mitigation solutions, a presentation by the UNFCCC Technology Mechanism on consultations undertaken on AI for climate action during Regional Climate Weeks, and an interactive discussion with the audience. The selection of speakers will be guided by ensuring gender balance, representation of views from different stakeholders as well as adaptation and mitigation examples from developed and developing countries, including LDCs and SIDS.

IV.   Draft agenda

5'   **Welcome and introduction by the Moderator**:
  - TBC.

15'   **High-level Opening**:
  - UNFCCC Executive Secretary;
  - UNEP Executive Director;
  - COP President.

30'   **High-level panel discussion**:
  - Senior Official from Annex I country;
  - Senior Official from non-Annex I country;
  - Senior Official from LDCs;
  - Senior Official from SIDS;
  - CEO of leading AI company, e.g. Microsoft;
  - UN Secretary-General Envoy on Technology on AI governance or Senior Official from UNESCO on the ethics of AI;
  - High-level representative from academia.

Guiding questions:

> How to harness the power of AI as a transformational tool for climate action in particular for the most vulnerable communities?
> How to ensure that the digital divide is not widening with AI applications?
> What aspects need to be taken into consideration to ensure an inclusive and just application of AI for climate action?
> How can international cooperation and partnerships be strengthened to leverage the role of AI for addressing climate change?

20'   **Showcase: AI for climate action**

(Adaptation: 2 presentations á 5min, one from NAI, one from AI speaker, including on early warning systems and climate-resilient agriculture)

- GEO and/or UNDRR: Early Warning Systems;
- Enterprise Neurosystem, Tanzania, Chile: Irrigation in Tanzania with CTCN and AgroSpace – Revolutionizing Remote Sensing for Food Security in Chile with AIM4C;
- Tomorrow.io and/or TomorrowNow.org;
- Africa Group of Negotiators/Ghana/Google: AI in Africa and/or South East Asia, e.g. India;
- BINGO/ICC, Google/Microsoft/IBM, etc.

(Mitigation: 2 presentations á 5min, one from NAI, one form AI speaker, including on energy and energy efficiency)

- Prof. Priya Donti, Co-Founder and Executive Director of Climate Change AI: Grid optimization and increased energy consumption from AI including data centers;
- IEA – Artificial Intelligence for Building Energy Management Systems;
- IRENA – Future Energy Systems Need Clear AI Boundaries;
- BINGO/ICC, State Grid Corp. of China, Uniper SE, Siemens, General Electric;
- Breakthrough Energy – AI & Mining for Critical Minerals (Kobold Metals);
- Planet.com: Predictive forecasting models on deforestation.

3'   **Findings from Regional Climate Weeks on AI for Climate Action**:

- Chair of the CTCN AB or Chair of the TEC.

2'   **Closing remarks**:

- Mr. Michael Bloomberg, UN Special Envoy for Climate Ambition and Solutions.

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