

Decision -/CP.22

Implementation of the global observing system for climate

The Conference of the Parties,

Recalling Article 4, paragraph 1(g) and (h), and Article 5 of the Convention,

Also recalling decisions 8/CP.3, 14/CP.4, 5/CP.5, 11/CP.9, 5/CP.10, 9/CP.15,

Further recalling Article 7 of the Paris Agreement,

Noting the important role of the Global Climate Observing System in meeting the need for climate observation and climate services under the Convention,

Recognizing the importance of and continued need for capacity-building to support systematic observation,

1. *Welcomes* the 2016 implementation plan of the Global Climate Observing System, *The Global Observing System for Climate: Implementation Needs* (hereinafter referred to as the implementation plan),¹ submitted by the secretariat of the Global Climate Observing System and prepared under the guidance of the Global Climate Observing System Steering Committee;
2. *Also welcomes* the contributions by organizations and experts to the implementation plan;
3. *Notes* that the Global Climate Observing System considered the outcomes of the twenty-first session of the Conference of the Parties when preparing the implementation plan;²
4. *Notes with appreciation* the assessment of climate-related observations that the implementation plan provides for multiple uses;
5. *Notes* the introduction of new essential climate variables³ and the plan's wider consideration of atmospheric, oceanic and terrestrial observation requirements and their connection to mitigation and adaptation, particularly early warning systems, including the relationship of the essential climate variables to the Earth's water, carbon and energy cycles;
6. *Encourages* Parties to work towards the full implementation of the implementation plan and to consider what actions they can take to contribute towards its implementation;

¹ Available at <http://unfccc.int/files/science/workstreams/systematic_observation/application/pdf/gcos_ip_10oct2016.pdf> and <<http://gcos.wmo.int>>.

² See document FCCC/SBSTA/2015/5, paragraph 28.

³ The new essential climate variables identified in the implementation plan are: lightning, ocean surface stress, ocean surface heat flux, nitrous oxide, marine habitat properties, land surface temperature and greenhouse gas fluxes. The full list of essential climate variables is contained in table 1 of the implementation plan.

7. *Invites* United Nations agencies and international organizations to support the full implementation of the implementation plan, as appropriate;
 8. *Emphasizes*, with regard to the implementation plan, the need to maintain, strengthen and build capacities for climate observations, monitoring and data management, including data rescue, digitization, analysis, archiving and sharing;
 9. *Also emphasizes* the need to build capacity in developing countries through existing relevant mechanisms, including the Global Climate Observing System Cooperation Mechanism.
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