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Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
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Annex: 1

Subject: Contribution to WMO observations through the CATCOS project

Action required: Members to ensure the continued operations of CATCOS stations

Dear Sir/Madam,

The Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) stressed that anthropogenic greenhouse gas emissions that led to atmospheric concentrations of carbon dioxide, methane and nitrous oxide unprecedented in at least the last 800,000 years, are extremely likely to have been the dominant cause of the observed climate change. On the other hand, it stressed that largest uncertainties related to impact of atmospheric composition on climate are related to aerosol particles. Coordinated long-term observations and analysis were the basis of the conclusions drawn by the IPCC. To help society to track the variations of the greenhouse gases and aerosols in the atmosphere, the Global Atmosphere Watch (GAW) Programme of the World Meteorological Organization (WMO), its Members and partners implement the global observations of aerosols, CO_2, CH_4, N_2O and synthetic greenhouse gases. They also produce the annual WMO Greenhouse Gas Bulletin, and guide analyses and assessments that support the United Nations Framework Convention on Climate Change (UNFCCC) and IPCC.

Observations also underpin all efforts by Parties to the UNFCCC to mitigate, and adapt to, climate change. The current status of systematic observation in each UNFCCC Member State is regularly reported through the National Communications to UNFCCC in the Chapter 'Research and Systematic Observation' and supported through the Global Climate Observing System (GCOS).

The importance of systematic observations and research was further stressed in the outcome of COP 21. The Paris Agreement in the Article 7 calls for "strengthening scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems, in a manner that informs climate services and supports decisionmaking".

Over the next few years, implementation of the Paris Agreement will require governments to make efforts to limit atmospheric concentrations of greenhouse gases. Regardless of the strategies and mechanisms applied, the ability to implement policies that limit greenhouse gas concentrations in the atmosphere would be greatly enhanced by an Integrated Global Greenhouse Gas Information System (IG3IS). Such a system will combine ground-based and space-based assets, self-reporting, carbon-cycle modelling, fossil-fuel use data, land-use data, meta-analysis, and an extensive distribution system to provide information about sources and sinks of greenhouse gases at policy-relevant temporal and spatial scales.

To: Permanent Representatives of Indonesia, Chile, Vietnam, Kenya, Kyrgyzstan, Switzerland

cc: Presidents of regional associations (for information)

The importance of the IG3IS concept and its implementation was further stressed by WMO Members at the Seventeenth World Meteorological Congress (Cg-17) that took place from 25 May to 12 June 2015. The Members adopted a Congress resolution calling for a comprehensive implementation of IG3IS. This implies that observational and modelling capacities need to be developed accordingly to address this call. Special attention should be given to the regions where observations are sparse.

In this context, the CATCOS (Capacity Building and Twinning for Climate Observing Systems) project, supported by Switzerland, constitutes a significant contribution by adding high-quality greenhouse gases and aerosol measurements in strategic, very data sparse areas of the globe (in Indonesia, Chile, Vietnam, Kenya, Kyrgyzstan). It therefore represents an important contribution to all of the above, i.e. to GCOS and the user needs from UNFCCC and IPCC. The important contribution of CATCOS towards establishing observational capacity in WMO Regions was further stressed by Cg-17 (general summary, paragraph 4.3.68).

The second phase of the CATCOS project will come to an end in December 2016. In this respect and in view of the importance of the observations established in this project as a substantial contribution of your countries to the fulfilling of the Paris Agreement, the Members are encouraged to build upon the technical capacity established through the CATCOS project to ensure long-term sustainability of your observing system supporting climate negotiations and climate change mitigation. These stations constitute today a vital element to anchor national observing systems for greenhouse gases and aerosols and provide excellent opportunities for the future network development.

I would like to express my appreciation for your continued support in promoting the Programmes and activities of WMO.

Yours faithfully,

(P. Taalas)
Secretary-General

List of atmospheric station established or supported through the CATCOS project

Country	Station Name	Location		Atmospheric Domain	
		Lat.	Long.	GHG	Aerosol
Chile	El Tololo	-30.17	-70.80	x	x
Indonesia	Bukit Kototabang	-0.20	100.32	-	x
Kenya	Mt. Kenya	-0.06	37.30	-	x
Kyrgyzstan	Cholpon-Ata	42.64	77.08	x	-
Vietnam	Pha Din	21.57	103.52	x	x