



Vienna Convention
MONTREAL PROTOCOL

Report of the Advisory Committee of the Vienna Convention Trust Fund on Research and Systematic Observations

12th Meeting of the Ozone Research Managers (ORM12)
Geneva, 23 April 2024

Sophie Godin-Beekmann

Goals of the VCTF Advisory Committee

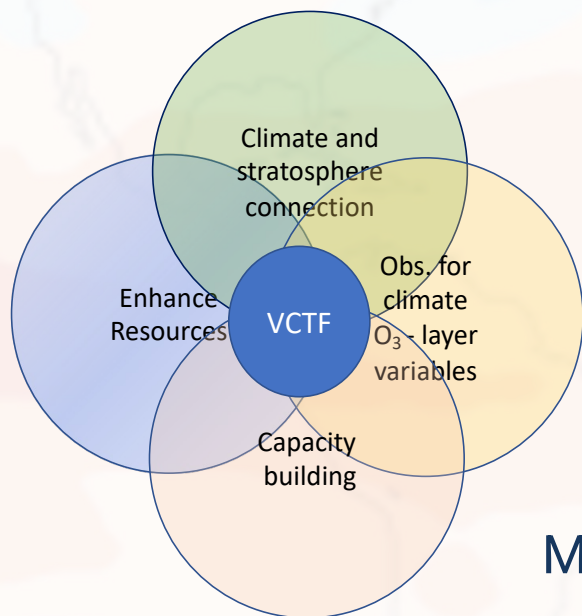
Established in 2014 (Decision X/3, COP10)

Mandate:

- Long-term strategy: implementation objectives of VCTF funding & priorities (from ORM overarching goals)
- Short-term action plan (urgent needs and best possible use of resources)
- Evaluation of individual proposals: ensure quality control striving for regional balance & Identify possibilities for complementary funding

Main goals:

- Maintain & extend observations dedicated to ozone layer science - Focus on total ozone, ozone vertical distribution in the stratosphere and upper-troposphere, surface UV radiation
- Capacity building (support for developing countries & CEITs)



The present composition of the Advisory Committee

Lucy Carpenter (SAP Co-Chair, UK)

Hector R. Estevez (ORM 11 Co-Chair, Mexico)

Sophie Godin-Beekmann (Chair since 2023, France)

Kenneth Jucks (ORM11 Co-Chair, USA)

Stephanie Kremser (New Zealand)

M. Venkat Ratnam (India)

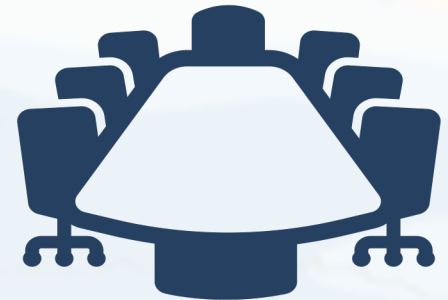
A.R. Ravishankara (Chair up to 2022; USA)

Matt Tully (SAG Ozone & UV Chair, Australia)

Sophia Mylona (UNEP, Ozone Secretariat)

Leilani Dulguerov (WMO)

John Rimmer (WMO)



Activities of the VCTF Advisory Committee since ORM11(2021)

- Evaluated proposals received in response to a call issued in Dec 2020. Another call issued in Nov 2023
- Guidelines for proposals
 - Limit of US\$ 50K per proposal
 - Emphasize need for cost-sharing
 - Guarantee sustainability of projects supported by VCTF “seed money”
- Limited funding:
 - focus on calibration & intercomparison campaigns, training activities, instruments refurbishment and acquisition by Article 5 countries and CEITs
- More resources would allow proposals related to monitoring of controlled substances
- Implementation of long-term & short-term plan of action: specific points of attention from the decisions of 12th COP to the Vienna Convention



Identifying gaps and needs in research and monitoring of ozone and related climate variables and parameters

- **Still need to strengthen total ozone observations in the tropics and subtropics, and parts of the southern hemisphere** – ODS evolution, effects of circulation changes due to climate change on ozone levels
- **Need for high-quality measurements:** Regional calibration campaigns to ensure consistency with global networks across timescales. Possibilities of repair and maintenance of instruments, training of operators during campaigns
- **Calibration and validation of satellite sensors:** timely provision of data from global networks-> support to help in time delivery of observations to data centres (e.g. WOUDC). Essential component for trend analyses based on satellite data.
- **Reduce reliance on Dobson and Brewer instruments (expertise and active instruments are dwindling)**-> Need for the development of new cost-effective instrumentation
- **Direct comparisons of instruments such as the PANDORA, SAOZ, or BTS spectrometers** with Dobson and Brewers: transfer to more modern instruments

Identifying gaps and needs in research and monitoring of ozone and related climate variables and parameters

- **Ozone vertical distribution:**
Ozonesondes most effective technique for measuring ozone in the free troposphere and lower stratosphere : Expand the ozone sonde network in the tropics and other under-represented areas.
- **Scientific activity supporting the Montreal Protocol:** encourage greater participation of scientists from Article 5 countries: assessments, CCMI, APARC/LOTUS, regional modeling activities
- **Need for quantification of emissions of controlled substances:**
Collaborations between Article 5 and non-Article 5 countries for measurements and emission quantification.

Capacity building in Article 5 countries: expertise can be transferred to quantification of other greenhouse gases

Facilitating relocation of unused Dobson and Brewer instruments and the use of ozonesondes to new observation programs

Recommendations

- Connect with individual networks or site operators to gain insights on:
 - Instruments that are currently inactive but still functional.
 - Instruments that are currently inactive due to damage or malfunction
- Compile a database of potentially available instruments and their conditions
- Reach out to the owners of these instruments to encourage their deployment in other countries
- Devise a strategy for training personnel to operate these instruments upon deployment
- Explore ways to secure funding for refurbishment and calibration of identified instruments.

Fostering stronger relationships with scientific institutions and related global networks to build capacity

- Maintain close connection between the Advisory Committee and:
 - Ozone & UV monitoring networks (WMO GAW, NDACC, SHADOZ, EuBrewnet)
 - Science bodies involved in the science of the ozone layer (IO3C, APARC, IGAC)
- Enhance relationship with the GCOS Reference Upper-Air Network (GRUAN) network
- Increase visibility of the Trust Fund within GCOS
- Enhance relationship with the Pandora Global Network based on Pandora spectrometers (funded for the validation of satellite missions dedicated to air quality)
- Maintain close connection between the Advisory Committee and controlled substance monitoring networks (NOAA and AGAGE networks): Possibility for a party to fund an activity eligible for future Trust Fund support.



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Thank you
