



# Voluntary Cooperation Programme

Supporting the development of national meteorological and hydrological services through the UK's contribution to the World Meteorological Organization's Voluntary Cooperation Programme

**The purpose of the World Meteorological Organization (WMO) Voluntary Cooperation Programme (VCP) is to work in partnership with the national meteorological and hydrological services (NMHSs) of developing countries to help enhance capacity to deliver effective weather and climate services.**

The VCP encourages support and collaboration between NMHSs. The programme focuses on meeting the needs of WMO members through direct financing, small grants and the transfer of expertise and technology. The latest scientific and technological advances are shared with NMHSs, with partner meteorological services providing equipment, fellowships, expertise and financing. The recipient countries ensure their effective use by providing contributions from national resources, such as local infrastructure and staffing.



## UK VCP

The UK's contribution to the WMO VCP is managed through the Met Office, with funding from our Public Weather Service (PWS) programme. We work in partnership with other NMHSs in different ways to help sustainably develop their weather and climate services for protection, prosperity and wellbeing.

The Met Office is involved in managing a wide range of VCP projects, from the collection of weather observations data to the communication of weather forecasts to the public.

## Weather observations

Records of the global climate are essential for monitoring climate change, but maintaining them requires effective weather observations to be taken all over the world. These observations are also essential for both local and global weather forecasting. While most WMO member states can support surface observations, the upper-air component can be very expensive to maintain. In recognition of this, the UK VCP has worked in partnership with developing countries for over 40 years to help install and maintain remote observation sites.



## Forecast delivery

The UK VCP also works in partnership with NMHSs in developing countries to assist in the provision of forecast model data and products. These are provided through different channels such as websites and satellites, as well as training in meteorology and communication of forecast information. This is particularly relevant for disaster risk reduction efforts.

## Climate data management systems (CDMS)

The importance of effective climate services (as recognised by the WMO Global Framework for Climate Services) cannot be overestimated. These services are critical on global, regional and national levels to provide information to a wide range of users – including government, agriculture and industry – and ultimately help to protect lives and promote prosperity. An effective CDMS (observations database) is critical for the consistent management of observational data, and ultimately for the provision of effective climate services. The UK VCP works in partnership with NMHSs to implement climate data management processes and systems.

## Media and communications

The UK VCP recognises the importance of an NMHS communicating its forecasts to the public and key stakeholders. This capability helps NMHSs fulfil one of their main public weather service objectives: to protect the life and property of citizens. TV presentations can also give the NMHS a higher profile and help to raise its reputation both with the public and government. Over the last 30 years, UK VCP has worked on an on-going basis with over 40 developing countries to build their media and communications capabilities.

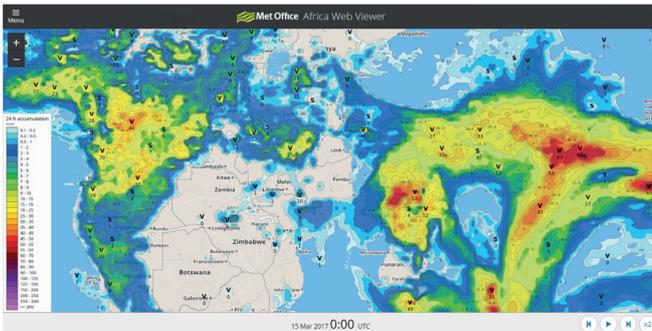


## Human resource development

Initial foundation training and continuous professional development is recognised as being important for the development of an NMHS. The UK VCP supports various courses covering subjects from forecasting to management. These include online and face-to-face training, and a Masters course, benefitting staff at all levels.

## UK VCP opportunities and resources for NMHSs include:

- Essentials of Management course – a 20-week facilitated online course.
- MSc in Applied Meteorology and Climate with Management – sponsored fellowships at the University of Reading, UK.
- Annual WMO/Met Office Aviation Seminar – training from the WMO and Met Office College on relevant areas of interest, for example aviation hazards and SIGnificant METEorological Information (SIGMET).
- In cooperation with the WMO, ‘familiarisation’ visits to the WMO and Met Office for new directors of NMHSs to learn more about the work of the WMO and other NMHSs.
- VCP African Model Viewer. For NMHSs in Africa, the web viewer provides access to Met Office Unified Model (MetUM)<sup>1</sup> data over the region.
- Use and mentoring on the Met Office Weather Observations Website (WOW) which can help collect and visualise third party observations and Automatic Weather Station data for forecasters, and report impacts through photograph uploads.
- Alongside supporting the development of TV weather presentations including studio installation and technical and presentation training, further guidance and help on communications and media is available on the UK VCP support website.



*“The course was delivered in a way which allowed me to understand and apply the knowledge in my day to day work.”*

**Essentials of Management student, 2015**

*“Through this Masters [MSc in Applied Meteorology and Climate with Management] I have developed a prototype drought warning system that could be improved and used to address a major problem facing Ghanaian farmers.”*

**Mr Frederick Otu-Larbi,  
Ghana Meteorological Agency**

*“The Burundi TV presentation... is very much appreciated by the Burundi authorities and population.”*

**Burundi Hydrometeorological  
Department following installation  
of TV studio and relevant training**

<sup>1</sup> The Met Office Unified Model (MetUM) is the numerical modelling system developed and used at the Met Office for all weather and climate applications.

## Met Office

The Met Office is a global centre of excellence in weather and climate science, and the UK's national weather service. Founded in 1854, the Met Office pioneered weather forecasting. Ever since then we have been at the forefront of developments in weather and climate science.

Our weather and climate services assist a wide range of worldwide partners, including governments, businesses and industries, armed forces, and NMHSs. We operate one of the world's leading climate change research centres, the Met Office Hadley Centre.

We draw on our scientific and operational experience to offer practical advice and support to countries around the globe in developing and enhancing their weather and climate services. We work in partnership with NMHSs to improve their service delivery and enable them to deal successfully with weather and climate-related hazards and impacts. Effective meteorological and hydrological services strengthen nations' preparedness, well-being, prosperity and prospects for growth.

## World Meteorological Organization (WMO)

The WMO is a specialised agency of the United Nations (UN) with 191 member states and territories. The WMO provides world leadership and expertise in international cooperation in the delivery and use of high-quality, authoritative weather, climate, hydrological and related environmental services by its members, for the improvement of the well-being of societies of all nations.



To find out more:



+44 1392 885680



international@metoffice.gov.uk



www.metoffice.gov.uk



@metofficeww



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