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Meteorological  
Organization

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# MeteoWorld

Weather • Climate • Water

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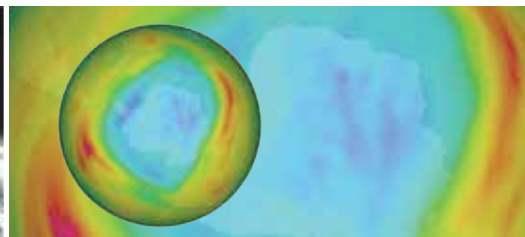
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## NEWS IN BRIEF

### WMO and UNCCD take joint action on drought

As East Africa has faced the worst drought in 60 years, the latest famine has put a renewed spotlight on the need for national and regional drought policies.

Droughts have become more common over the past two decades. This is consistent with reports from the Intergovernmental Panel on Climate Change, stating that the world has become more drought-prone over the last 25 years, and will see an increased frequency of droughts in the future.

WMO has played an important role in alerting decision-makers with relevant forecasts. The IGAD Climate Prediction and Applications Centre (ICPAC) already called for preparedness for a long period of drought over parts of the equatorial region in September 2010 and January 2011.

The Greater Horn of Africa Climate Outlook for the forthcoming season (September

through December 2011) indicates a possible return to normal/above-normal rainfall conditions in famine-hit southern Somalia, but a risk of below-normal rainfall remains over northern Somalia and adjoining regions.

September to December constitutes an important rainfall season - after the March-May rains - over southern Somalia and other equatorial parts of the Greater Horn of Africa (Kenya, Uganda, Burundi, Rwanda and northern Tanzania). Rainfall in northern Somalia during this period is typically lower than in southern Somalia.

WMO is also working to put longer-term measures in place to deal with drought. WMO is moving forward quickly to provide integrated drought information to help decision-makers deal with drought, such as the one underway in East Africa. Since drought is a serious and growing problem in many countries, adaptation to drought, desertification and climate change urgently needs

to be mainstreamed in national development policies.

### Casablanca symposium in November

WMO and UN Convention to Combat Desertification (UNCCD) will lead international discussions in November to build integrated drought information systems. The two organizations, along with Morocco's national meteorological service and the US National Integrated Drought Information System, are organizing an international symposium in Casablanca, Morocco from 9 to 11 November 2011.

The main goal would be to discuss more coordinated action for monitoring and early warning systems that deliver timely information to decision-makers and improve impact assessment procedures, pro-active risk management measures and preparedness plans, and stronger emergency response programmes.

### WMO-UNCCD partnership

Luc Gnacadja, Executive Secretary of UNCCD met with Mr Jarraud at WMO in July 2011, following the declaration of famine in southern Somalia by the United Nations, in order to address drought issues. The two organizations have a long-standing partnership. Most recently they have championed the use of the Standard Precipitation Index, as a universal meteorological drought index to improve monitoring and climate risk management among countries.

A high-level WMO delegation will attend the 10th Session of the UNCCD Conference of the Parties to be held in the Republic of Korea, from 10 to 21 October 2011.

### Drought management "best practices" compendium underway

WMO is also compiling a "best-practices" compendium to help countries move rapidly to develop

their own national drought policies appropriate to their local conditions. WMO is working with its scientific network to gather the best policy advice available on drought management, and has conducted an international meeting on national drought policies, hosted by George Mason University (USA) on 14-15 July 2011. The meeting outlined steps for countries to learn from each other to reduce drought risks, and set the process in motion for the compendium, which will be completed in 2012.

### Tsunami warning system tested successfully

The communication network of the Tsunami Early Warning and Mitigation System for the North-eastern Atlantic, the Mediterranean and connected seas was tested successfully for the first time on 10 August 2011.

The system, initiated under the aegis of the UNESCO Intergovernmental Oceanographic Commission (IOC) in 2005, conducted a test with Tsunami Warning Focal Points of 31 countries in the region. They received a test message at 10.36 UTC via electronic mail, fax and the WMO Global Telecommunications System from the Kandilli Observatory and Earthquake Research Institute in Turkey. The messages were well-received within a few minutes of being sent.

For more information see the Media Services page on the UNESCO Website: <http://www.unesco.org/new/en/unesco/>

### WMO Secretary-General is next chair of UN-Water

WMO Secretary-General Michel Jarraud and Bert Diphorn, Director of Human Settlements Financing Division at UN-Habitat, were elected by consensus as next chair and vice chair respectively of UN-Water, during UN-Water's 15th meeting in Stockholm.

Population growth, food security and environmental degradation mean that the UN system needs to elevate the role

of water on the international agenda, in order to step up efforts to preserve and manage this precious natural resource.

"The impacts of climate change on the distribution and availability of water adds a new dimension to the challenges," said Mr Jarraud. "The on-going humanitarian disaster in the Horn of Africa is just the latest example of the pressing need to improve management of weather extremes such as drought and floods," he said.

Mr Jarraud will assume the rotating chair in 2012, a year in which the Rio+20 summit will focus the spotlight on sustainable development and poverty reduction – including the need to accelerate progress towards the water and sanitation targets of the Millennium Development Goals.

UN-Water, which coordinates and strengthens the work of 28 United Nations agencies relating to fresh water, was established in 2003 to tackle global water-related challenges and opportunities across the UN family.

Current UN-Water Chair, Adeel Zafar, Director, the Institute for Water, Environment and Health at the United Nations University in Hamilton, Canada, will hand over the chairmanship at the next UN-Water meeting in February 2012.

### Open Science Conference update

Climate research in service to society will be the focus of

discussions among climate scientists from over 50 countries, as they meet in Denver, Colorado, USA from 24 to 28 October 2011 for the World Climate Research Programme's Open Science Conference.

An improved understanding of the climate system and its interactions with other Earth system components is critical to predict its future evolution, reduce vulnerability to high impact weather and climate events, and sustain life. This need is greater than ever, given that humans have emerged as the dominant agent of future change.

To advance on such challenges, the World Climate Research Programme will assemble for the first time ever its entire research community, and engage other key international research programmes.

With over 20 plenary speakers, 200 speakers in parallel sessions, and more than 1500 registered participants, the event will present a unique synthesis of climate research findings, provide updates on our state of knowledge on climate variability and change, identify the urgent scientific issues and research challenges, and ascertain how the WCRP can best facilitate research and develop partnerships critical for progress.

Special side events for students and early career scientists, a business forum and special gala evening will make this a memorable event for all. The programme and registration information can be

found at: <http://conference2011.wcrp-climate.org/>

### GFCS consultations underway

WMO is conducting consultations with Members, the United Nations system and various stakeholders regarding the implementation of the Global Framework for Climate Services (GFCS).

To facilitate the process, WMO has set up a GFCS Office within the Secretariat, in response to the request of the WMO 16th Congress, which endorsed the GFCS High-Level Taskforce report. The GFCS Office, a transition mechanism, will facilitate a range of activities to develop a GFCS implementation plan and prepare for an Extraordinary Session of the World Meteorological Congress in 2012.

The WMO Executive Council established an Executive Council Task Team to oversee the development of the GFCS implementation plan, Terms of Reference and Rules of Procedure of an Intergovernmental Board and its substructures, chaired by the President of WMO. These proposals will be reviewed by this Extraordinary Session in 2012.

See [http://www.wmo.int/pages/gfcs/gfcs\\_en.html](http://www.wmo.int/pages/gfcs/gfcs_en.html) for more information.

### Good practices for multi-hazard early warning systems

WMO has developed a book which will be published in late 2011 by Springer-Verlag entitled, *Institutional Partnership in Multi-Hazard Early Warning Systems: A compilation of seven national good practices and guiding principles*.

It features cases from Bangladesh, China, Cuba, France, Germany, Japan and the United States of America, building on the expertise of WMO Members, UN and international partners and relevant national ministries. The book makes the case for greater integration of early warning systems in planning at all levels of society, building on lessons learned through international efforts.

The image shows a screenshot of the WCRP OSC website. The header features the WCRP logo and the text 'World Climate Research Programme'. Below the header, there is a navigation menu on the left with items like 'Home', 'Why Attend?', 'Programme Committee', 'Programme Schedule', 'Presentations', 'Oral Presentations', 'Water Practitioners', 'Registration Information', 'Financial Assistance', 'Students & ECS Programs', 'Partnership Programs', 'Venue & Accommodations', 'Social Events', 'Participation', 'Newsroom', and 'Travel and VISA Information'. The main content area is titled 'WCRP OSC Climate Research in Service to Society' and provides details for the 24-28 October 2011 event at the Sheraton Denver Downtown Hotel. It features three speaker profiles: Michel Jarraud, Secretary-General of the WMO; Wendy Watson-Wright, Executive Secretary of the Intergovernmental Oceanographic Commission; and Dalang Chae, Executive Director of the International Council for Science. A 'NEWS!' sidebar on the right contains several short news items, including one about a student early career scientists poster competition and another about a detailed conference programme.

A copy will be made available for each National Meteorological and Hydrological Service of WMO Members.

See MeteoWorld online for a WMO interview outlining the lessons learned and trends in multi-hazard early warning systems at <http://www.wmo.int/meteoworld>.

## Competency Assessment for Aeronautical Meteorological Personnel

A series of workshops are underway to help aeronautical meteorologists update their competencies. All providers of meteorological services to air navigation must demonstrate core competencies, for forecasters and observers, by December 2013.

A first workshop took place in Kenya in 2010. The second workshop took place in Barbados from 18 to 22 July 2011, hosted by the Caribbean Institute for Meteorology and Hydrology. The training was targeted to the Americas (WMO Regions III and IV) and brought together 23 participants from 22 countries. Three more workshops are taking place in Turkey (September 2011); Hong Kong, China (November 2011) and India (November 2011).

The link with quality management systems is an important focus of the training. The workshops are designed to build confidence in competency assessment, develop customized plans for national meteorological services and share experiences in order for countries to benefit from lessons learned, leading to higher quality aeronautical meteorology around the world.

## International Ozone Day Focuses on HCFCs

This year's International Day for the Preservation of the Ozone Layer (16 September) served as a rallying call to accelerate the phase-out of chemicals which destroy the Earth's fragile shield and which are also powerful greenhouse gases.

"HCFC phase-out: a unique opportunity" was the theme for



<http://www.polarfield.com>

*High school students launch a weather balloon to measure atmospheric ozone levels.*

the celebration, marking the anniversary of the signature of the Montreal Protocol, which has been very successful in reversing the destruction of the ozone layer, which protects us from the sun's harmful ultraviolet rays.

Many ozone-destroying chemicals such as chlorofluorocarbons (CFCs), once present in products such as refrigerators and spray cans, have been phased out. However, demand for replacement substances including hydrochlorofluorocarbons (HCFCs) has increased, prompting an agreement in 2007 to accelerate the phase-out of HCFCs.

A joint assessment published last year by WMO and the United Nations Environment Programme (UNEP) predicted that total emissions of HCFCs would begin to decline in the coming decade due to the measures agreed under the Montreal Protocol. In the interim, emissions continued to rise. The most abundant one, HCFC-22, increased more than 50 per cent faster in 2007-2008 than in 2003-2004, it said.

That assessment also shed new understanding on the complex linkages between ozone and climate change.

"Changes in climate, mainly due to emissions of long-lived greenhouse gases, are expected to have an increasing influence on stratospheric ozone in the coming decades," said WMO Secretary-General Michel Jarraud.

"At the same time, the impact of the Antarctic ozone hole on the Earth's surface climate is becoming evident, in particular on surface temperature and wind patterns," he said.

"Human activities will continue to change the composition of the atmosphere. WMO's Global Atmosphere Watch programme will therefore continue its crucial monitoring, research and assessment activities to provide scientific data needed to understand and ultimately predict environmental changes," said Mr Jarraud.

"WMO's latest Antarctic Ozone Bulletin shows that the current ozone hole is about 24 million km<sup>2</sup> – proof that we cannot afford to be complacent."

## Antarctic Ozone Bulletin

In its Antarctic Ozone Bulletin published 16 September, WMO reported that the ozone hole increased rapidly during the first two weeks of September from less than 10 million km<sup>2</sup> to approximately 24 million km<sup>2</sup>. This is based on observations from the ground, from weather balloons and from satellites together with meteorological data. See: <http://www.wmo.int/pages/prog/arep/WMOAntarcticOzoneBulletins2011.html>

This means that the 2011 ozone hole is about average in size in comparison to the ozone holes of the last decade. It is already significantly larger than in 2010, but

## COMING UP

**10-12 October:** Symposium on Climate Risk Management, Guayaquil, Ecuador

**10-13 October:** Severe Weather Forecasting demonstration Project (SWFDP), RAIL, Hanoi, Vietnam

**10-12 October:** Workshop on Capacity Development requirements for GFCS, Geneva

**10-13 October:** Inaugural Meeting of the WMO Task Team on Quality Management Systems, Innsbruck, Austria

**12-14 October:** Meeting of Joint CCI/CBS Expert Team on Regional Climate Centres, Offenbach, Germany

**12-14 October:** WMO/WWRP Monsoon Heavy Rainfall Workshop, Beijing, China

**13-14 October:** Polar Space Task Group (PSTG)- first session, Geneva

**13-15 October:** 1st Session of the EC Task Team on the Global Framework for Climate Services, Geneva

**17-21 October:** Meeting of the CBS Open Programme Area Group on PWS Expert Team on PWS in Support of Disaster Prevention and Mitigation, Beijing, China

**17-18 October:** Steering Committee Flash Flood Guidance System for Southern Africa Region, Pretoria, South Africa

**17-21 October:** 27th Session of the WG on Numerical Experimentation, Boulder, CO, USA

**17-21 October:** EPA/WMO/CCAD Central America Air Quality Forecasting Training Workshop, San José, Costa Rica

**18-20 October:** WMO / WWRP International Workshop on Rapid Changes in Tropical Cyclone Intensity and Track, Xiamen, China

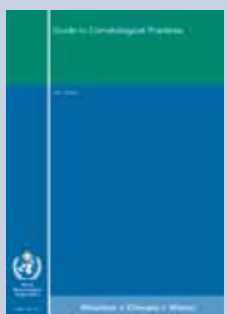
**24-28 October:** WMO Training Course on Flood Forecasting and Warning, Nanjing, China

**24-28 October:** WCRP International Open Science Conference, Denver, CO, USA

## RECENTLY ISSUED



**Technical Regulations**  
Volume II - Meteorological  
Service for International  
Air Navigation  
2010 Edition  
(WMO-No. 49)  
[ A - E - F - R - S ]  
2011; CD-Rom for each  
language.  
ISBN 978-92-63-10049-8  
Price: CHF 70



**Guide to Climatological  
Practices**  
New edition  
(WMO-No. 100)  
[ E ] ( F - R - S in  
preparation)  
2011; 114 pp.  
ISBN 978-92-63-10100-6  
Price CD-Rom: CHF 30  
Price hard copy: CHF 40



**Manual on flood  
forecasting and warning**  
(WMO-No. 1072)  
[ E ] Including CD-ROM  
2011; 142 pp.  
ISBN 978-92-63-11072-5  
Price: CHF 38

smaller than in 2006, when there was a record large ozone hole.

The ozone hole typically reaches its maximum surface area during the second half of September and the maximum depth during the first half of October.

### New IPCC reports

In November 2011, the IPCC will release a Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation, prepared by IPCC Working Groups I and II.

The "Summary for Policy-makers" will be issued following an approval session of the full report in Kampala, Uganda from 14-17 November, 2011. The report will also undergo final acceptance at the 34th Plenary Session of the IPCC on 18-19 November 2011, also in Kampala, Uganda.

In May 2011, IPCC released a Special Report on Renewable Energy Sources and Climate Change Mitigation. Prepared under the responsibility of its Working Group III, over 130 authors contributed and 115 countries participated in its approval. The report is available at [www.ipcc.ch](http://www.ipcc.ch). For information about the process, the authors, outreach events, videos and presentations, see: <http://srren.ipcc-wg3.de/>

### WMO Fellowship Appeal

WMO has an appeal underway to the WMO community to support the WMO Fellowship Programme. The Web-based appeal, called "Building Capacity, One Fellow at a Time," will continue until 31 December 2011.

Contributions will fund undergraduate and postgraduate education for fellows from least developed countries, developing countries and Small Island Developing States in meteorology, hydrology and climatology.

Readers are encouraged to foster young talent with a personal donation to the WMO Fellowship Fund and to support the cause on Facebook.

To contribute, see <http://www.wmo.int/appeal>

### Peruvian observatory upgraded for regional training

A new Regional Training Centre for meteorologists was inaugurated in Lima, Peru on 26 July 2011. The Universidad Nacional Agraria La Molina now serves Latin America and the Caribbean as a centre for low-cost meteorological training. There is a three to four year university programme available, with no tuition fee. Shorter courses as well as online courses are in development.

WMO has worked closely with the university over the past three years, by providing input on the course content, and conducting courses jointly with the university.

The Regional Training Centre is strengthened by an agreement between the Peruvian National Meteorological and Hydrological Service (SENAMHI) and the university, outlining specific objectives to ensure that meteorologists are trained to meet growing societal needs for weather, water and climate products.

### El Niño/La Niña update

WMO has issued its latest Update on El Niño/La Niña, the phenomena in the tropical Pacific which have important consequences upon weather and climate around the globe.

The continuation of near neutral conditions - with the ocean temperatures, tropical rainfall patterns, and atmospheric winds over the equatorial Pacific Ocean near the long-term average - or the re-emergence of La Niña conditions are the most likely scenarios for the rest of 2011, according model forecasts and expert interpretation used by WMO.

If a La Niña event does occur, current indications are that it would be considerably weaker than the moderate to strong 2010-2011 episode, which ended in May 2011 and was linked to disastrously wet conditions in parts of Australia, Indonesia, Southeast Asia, and portions of northern South America (such as Colombia), as well as drought in parts of the Horn of Africa, central southwest Asia, southeastern South America and



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the southern United States of America.

Development of an El Niño is considered very unlikely.

Following the dissipation of a moderate to strong La Niña event that dominated the tropical Pacific Ocean from September 2010 to February 2011, neutral conditions prevailed over the tropical Pacific from May 2011 onwards. However, a few weak remnants of La Niña persisted, particularly in some atmospheric features.

Observations during recent weeks indicate a drift toward the cool side of neutral in terms of surface as well as subsurface ocean temperatures, along with associated changes in atmospheric circulation.

The El Niño/La Niña Update is a consensus-based product prepared by WMO in close collaboration with the International Research Institute for Climate and Society (IRI), USA, based on input from climate prediction centres and experts around the world.

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