

WORLD METEOROLOGICAL ORGANIZATION

COMMISSION FOR BASIC SYSTEMS

**MEETING OF THE COMMISSION FOR BASIC SYSTEMS
(DPFS-PWS) TASK TEAM ON THE PROVISION OF
OPERATIONAL METEOROLOGICAL ASSISTANCE TO
HUMANITARIAN AGENCIES**

WMO HEADQUARTERS, GENEVA, SWITZERLAND, 28-30 (AM) JULY
2014



FINAL REPORT

EXECUTIVE SUMMARY

The “Meeting of the Commission for Basic Systems (CBS/DPFS-PWS) Task Team on the Provision of Operational Meteorological Assistance to Humanitarian Agencies” was held at WMO Headquarters, in Geneva, Switzerland, from 28 to 30 (AM) July 2014. The meeting was chaired by the vice-chairperson of the Task Team, Mr Paul Davies (UK). A summary of the discussions and roadmap for the provision of meteorological assistance to humanitarian agencies is provided in Annex III to this report.

GENERAL SUMMARY OF THE WORK OF THE MEETING

1. OPENING

1.1 The “Meeting of the Commission for Basic Systems (CBS/DPFS-PWS) Task Team on the Provision of Operational Meteorological Assistance to Humanitarian Agencies” was held at WMO Headquarters, in Geneva, Switzerland, from 28 to 30 (AM) July 2014. The meeting was chaired by the vice-chairperson of the Task Team, Mr Paul Davies (UK). Mr Davies opened the meeting at 9:00, and invited the WMO Secretariat representatives, Ms Haleh Kootval (PWS) and Ms Alice Soares (DPFS), to provide background information related to the activities that have been carried out in support of humanitarian agencies.

2. ORGANIZATION OF THE MEETING

2.1 Adoption of the agenda

2.1.1 The Task Team adopted the provisional agenda without changes, as provided in Annex I to this report.

2.2 Working arrangements

2.2.1 All documents submitted for the meeting are referenced and hyperlinked in the Documentation Plan (INF. 1), which had been posted on the WMO website at:

https://www.wmo.int/pages/prog/www/DPFS/Meetings/TT-Humanitarian_Geneva2014/DocPlan.html

2.2.2 The Task Team agreed on its hours of work and other practical arrangements for the meeting. Participants briefly introduced themselves to facilitate interactions throughout the meeting. The list of participants in the meeting is provided in Annex II to this report.

3. INTRODUCTION AND BACKGROUND, INCLUDING REVIEW OF OUTCOMES OF THE PREVIOUS MEETING OF THE TASK TEAM (JULY 2013) AND FEEDBACK BY EC-66

3.1 The Task Team recalled the outcomes of its first meeting, held at WMO Headquarters, in Geneva, Switzerland, from 15 to 17 July 2013 (report available on the WMO website at: [Meeting of the Commission for Basic Systems \(CBS/DPFS-PWS\) Task Team on the Provision of Operational Meteorological Assistance to Humanitarian Agencies](#)), including:

- (a) That the Global Seasonal Climate Update (GSCU) would be a good contribution to the EWEA report, with regular conference calls to support updates of the EWEA report (*Deliverable 1*).
- (b) That the existing arrangements between WMO and HAs (Appendix I-5 of the *Manual on the Global Data-processing and Forecasting System*) need to be revised and an institutional framework, including designation criteria for RSMCs, and a list of standard products to be provided to HA, should be prepared as part of the global and regional arrangements (*Deliverable 2*).
- (c) That the Severe Weather Forecasting Demonstration Project (SWFDP) provides a framework to test the arrangements, including strengthening the links between RSMCs and RCCs, and trial the engagement of the HAs in the Regional Climate Outlook Forums (RCOFs). Based on previous discussion with HAs, the Task Team selected East Africa as the focus of a pilot project (*Deliverable 3*).

- (d) That the Lead Centre for Long-range Forecasts Multi-Model Ensemble (LC-LRFMME) provides a number of LRF products and data through its website (<https://www.wmolc.org/>) that could be used by HAs. For global observational products, there is a need to consult GCOS on available products and their appropriate use (*Deliverable 4*).
- (e) To provide access to the WMO Severe Weather Information Centre (SWIC) website to GDACS, and to exploit new technologies for disseminating the information to HAs (*Deliverable 5*).
- (f) On the need to develop a user guide associated with the products that would be provided to the HAs together with an explanation of the associated terminology (*Deliverable 6*).
- (g) On the need for coordinating and liaising with the Commission for Climatology (CCI), Commission for Hydrology (CHy), and the Commission for Agricultural Meteorology (CAgM), for a seamless Early Warning System (EWS) (*Deliverable 7*).

3.2 The Task Team noted that the WMO Executive Council, at its sixty-sixth session (EC-66, June 2014), largely endorsed the activities identified by the Task Team to support the work of the humanitarian agencies. However, EC-66 expressed some concerns regarding the use of the Global Seasonal Climate Update (GSCU) in support of humanitarian agencies and the WMO's contributions to the Global Disaster Alert Coordination System (GDACS). The Task Team agreed to address these issues under the relevant agenda items

4. REPORTS ON THE NEEDS AND REQUIREMENTS BY HUMANITARIAN AGENCIES

4.1 The representative from the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) in Geneva, Mr Peter Muller, informed the Task Team of OCHA organizational structures and practices in gathering weather, climate and water information to support its activities. Ms Jennifer Milton, WMO Consultant for disaster risk reduction, presented the needs and requirements by the European Commission Joint Research Centre (JRC), United Nations Institute for Training and Research (UNITAR) Operational Satellite Applications Programme (UNOSAT), OCHA Global Disaster Alert and Coordination System (OCHA-GDACS), and the World Food Programme (WFP). WMO Secretariat representatives, Mr Jose Camacho (AgM) and Ms Anahit Hovsepyan (CLW), informed the meeting of their programmes' involvement with humanitarian agencies. The needs and requirements by humanitarian agencies are summarized in item 1 of Annex III to this report.

5. SUPPORT TO THE EARLY WARNING / EARLY ACTION REPORT

5.1 The Task Team recalled that EC-66 noted that the main recommendation of this Task Team, in its first meeting (July 2013), was that the GSCU, that is being developed, would be a potential WMO contribution to the Early Warning Early Action (EWEA) report, which is widely used by humanitarian agencies for preparedness. This contribution includes the possible translation of the GSCU in a user-friendly language, easily understandable by humanitarian agencies. However, EC-66 recalled that the GSCU development was under trial phase and that the aim of GSCU would be to assist the NMHSs as well as RCCs and RCOFs. In this context, EC-66 requested CBS, in coordination with CCI, to consider most appropriate and effective contribution to humanitarian agencies and the EWEA report. The Task Team, jointly with the representatives from CCI and the WMO/WCP Secretariat, addressed this issue, which is summarized in item 2 of Annex III to this report.

6. GLOBAL, REGIONAL AND NATIONAL ARRANGEMENTS IN SUPPORT OF HUMANITARIAN AGENCIES' ACTIVITIES

6.1 The Task Team recalled that the existing arrangements between WMO and humanitarian agencies (Appendix I-5 of the *Manual on the Global Data-processing and Forecasting System* (GDPFS), WMO-No. 485) are outdated and needed to be revised and an institutional framework

should be prepared as part of the global, regional and national arrangements. In this context, the Task Team developed a diagram (as given in Annex III to this report) outlining possible arrangements of WMO with the humanitarian agencies, taking into account their needs and requirements. The Task Team agreed that the information in this diagram should be refined while the arrangements for providing information to Humanitarian Agencies are revised, in consultation with relevant WMO technical commissions and programmes.

7. DISSEMINATION ASPECTS

8.1 The Task Team noted that the HAs are using portals and GIS systems to collate and further process the information available to them. At the same time, the Task Team recalled its plans to collaborate with the Global Disaster Alert Coordination System (GDACS). In addition, the Task Team noted that EC-66 expressed its concern about GDACS' practice of also issuing its own multi-hazard warnings. EC-66 recognized that GDACS and other non-NMHS sourced alerts and warnings could challenge and undermine the authoritative meteorological, hydrological and other environmental hazard warnings issued by NMHSs. The Task Team noted that EC-66 requested CBS to review the governance procedures relating to the provision and availability of information on meteorological, hydrological and other environmental hazards, with a view to developing appropriate guidance for consideration by Cg-17 (2015). The Task Team, jointly with the representatives from CCI and the WMO/WCP Secretariat, addressed this issue, which is summarized in Annex III to this report.

8. ANY OTHER BUSINESS (AOB)

8.1 No other issues were considered under this agenda item.

9. CLOSING

9.1 The "Meeting of the Commission for Basic Systems (CBS/DPFS-PWS) on the Provision of Operational Meteorological Assistance to Humanitarian Agencies (TT-Humanitarian)" closed at 13:00 on Wednesday, 30 July 2014.

AGENDA

- 1. OPENING**
- 2. ORGANIZATION OF THE MEETING**
 - 2.1 Adoption of the agenda
 - 2.2 Working arrangements
- 3. INTRODUCTION AND BACKGROUND, INCLUDING REVIEW OF OUTCOMES OF THE PREVIOUS MEETING OF THE TASK TEAM (JULY 2013) AND FEEDBACK BY EC-66**
- 4. REPORTS ON THE NEEDS AND REQUIREMENTS BY HUMANITARIAN AGENCIES**
- 5. SUPPORT TO THE EARLY WARNING / EARLY ACTION REPORT**
- 6. GLOBAL, REGIONAL AND NATIONAL ARRANGEMENTS IN SUPPORT OF HUMANITARIAN AGENCIES' ACTIVITIES**
- 7. DISSEMINATION ASPECTS**
- 8. ANY OTHER BUSINESS (AOB)**
- 9. CLOSING**

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SUMMARY OF THE DISCUSSIONS AND ROADMAP FOR THE PROVISION OF METEOROLOGICAL ASSISTANCE TO HUMANITARIAN AGENCIES

1. **Requirements for operational meteorological and hydrological products and services by Humanitarian Agencies.**
 - a. Humanitarian Agencies, like many other entities that operate in a global context, have a need for meteorological and hydrological information on **all** spatial **scales** from global to local, and all time scales from minutes to decades, as well as historical information;
 - b. Humanitarian Agencies would welcome an active and **sustained engagement** with the WMO community;
 - c. They need this information to be provided from one contact point (at global, regional and national levels) available 24/7 as required by their operational needs, presented in a consistent, easily-understandable manner, using narrative text and visuals, **tailored** to their specific needs (this is essential);
 - d. They need this provision of information to be augmented by consultation and **interpretation** to enable the full value of the information to be translated into efficient and effective action (this is essential);
 - e. They would like a mechanism to be established to facilitate **two-way communication** and exchange of information between the meteorological and humanitarian communities;
 - f. They would like information (data, warnings) to be readily available, ideally with appropriate metadata if possible; and for the information to be formatted for ingestion into commonly used systems (**geo-referenced**);
 - g. **Training** on meteorological/hydrological concepts is needed, which includes engagement with exercises, workshops and discussion fora;
 - h. They would welcome evaluation and verification of meteorological products and services as elements in the **validation** of authoritative advice.

2. **Why WMO finds it difficult to meet these requirements**
 - a. WMO is built on the primacy of NMHSs as providers of forecasts – with RCCs and GPCs providing forecast guidance. There is no clear agreement in the WMO community on protocols for the provision of global scale guidance directly to users outside the WMO community. Such information is one requirement of the globally-acting HA community (to obtain a timely, broad global picture of weather/climate hotspots). Such global-scale guidance may at times differ in detail from RCC guidance and NMHS-issued forecasts; related concerns have led, for example, to resistance to the proposed interpretation of the GSCU for HAs. Protocols for providing global-scale guidance to users outside the WMO community need to be developed (precedents do exist – for example global significant weather forecast charts as issued by World Area Forecast Centres). Weather, climate and hydrology are dealt with separately within WMO (and within most NMHSs). These factors make it difficult to provide services seamlessly across all time scales.
 - b. The development of a user-engagement culture is still at an early stage within WMO. A framework to enable operational engagement with the Humanitarian Agencies has not been established, nor the necessary resources identified.
 - c. The points mentioned in a. and b. above, together with a lack of capacity and capability within NMHSs, make it difficult to provide tailored, consistent services to the Humanitarian community.

- d. The WMO community has historically been product-centric rather than service-orientated; improvements in service delivery are needed to enable best use of risk-based warnings and impact-based forecasting.
- e. While the CBS Task Team has initiated the process to capture the requirements of the Humanitarian Agencies, there remains a need to establish a mechanism for operational communication;
- f. The WMO community typically uses meteorologically-specific formats to exchange information rather than standard geo-referenced formats. The metadata needs of the Humanitarian Agency user community have not as yet been defined;
- g. The WMO community has not historically seen the training of users as part of its remit;
- h. The WMO community tends to verify models and numerical products; user-led verification and validation is not widely practiced within the WMO community;
- i. Many NMHSs lack a legal mandate for their role as authoritative providers of warnings of high impact weather.

3. What are the consequences of WMO not responding to user requirements in this context?

- a. Humanitarian Agencies will continue to use non-authoritative sources of meteorological and hydrological information, possibly leading to inconsistencies, confusion and ineffective Humanitarian Agency planning and response;
- b. Reputational damage to WMO, its regional centres, and NMHSs, particularly in respect of a perceived inability to effectively address user needs;
- c. Reputational damage to the Humanitarian Agencies through incorrect and inappropriate use and interpretation of meteorological information;
- d. Without effective leadership by WMO the non-authoritative information sources will proliferate, leading to inefficiencies and duplication of effort;
- e. Perceived lack of relevance of the WMO community may lead to a diversion of resources from NMHSs to agencies that are closer to the user.

4. Roadmap for what WMO needs to do in the short term to support Humanitarian Agencies.

- a. Recognize and promote to the Humanitarian Agencies the strengths of the WMO community, such as
 - i. The harmonization of data policies
 - ii. The availability of information via WIS etc
 - iii. The structures that have been developed at regional level, e.g. RSMCs and RCCs
 - iv. The development of global centres of excellence in long-range forecasting
 - v. The advances in forecasting at all time scales, including the advent of operational seasonal forecasting
- b. While current arrangements exist for providing information to Humanitarian Agencies (as defined in Appendix I-5 of the Manual on the Global Data-processing and Forecasting System (GDPFS), WMO-No. 485), these arrangements (as outlined in the diagram below) may need to be re-invigorated, implemented and reinforced;
- c. Clarify, and define where necessary, the responsibility of existing centres for the provision of products appropriate to the Humanitarian Agencies on global, regional and national scales, and develop protocols for provision of global and regional guidance to Humanitarian Agencies (see diagram below);
- d. Design, create and test a mechanism for the delivery of services with the Humanitarian Agency community, taking into account their needs for consultation, interpretation and two-way engagement, and following best practices in collaborative decision-making and validation;

- e. Recognizing the successful development of the Global Seasonal Climate Update (GSCU) on a trial basis, to request the Task Team on the GSCU to;
 - i. Consider changing the product name to Global Seasonal Climate Guidance (GSCG) to reflect the status of the product as “guidance”
 - ii. Accelerate the development of the GSCU/GSCG to operational status and include Regional Centres and NMHSs in a distribution list for the trial products
- f. Strengthen the engagement of the WMO community with the Inter-Agency Standing Committee (IASC) by nominating a suitable representative, e.g. a member of the Task Team on GSCU/GSCG, to assist with the preparation of the Early Warning / Early Action (EW/EA) report and to provide feedback both to the CBS Task Team and to the Members where potential environmental impacts have been identified;
- g. Recognizing the issues raised at EC-66 regarding the Global Disaster Alert Coordination System (GDACS), to engage with the EU JRC with a view to improving access to and use of authoritative information sources on GDACS and to improve the attribution of those information sources;
- h. Organize a joint HA/WMO workshop in Geneva to:
 - i. Perform a test phase with one region...
 - ii. Begin to define training needs (including cross-training) and
 - iii. Consult on the development of prototype services for the provision of operational meteorological assistance by NMHSs to HAs at a national level;
 - iv. Agree the reporting and governance arrangements relating to the provision of information services from the WMO community to the Humanitarian Agencies.

5. Roadmap for what WMO needs to do in the medium-to-long term.

- a. Following continued validation and testing of the prototype, implement the mechanisms for the operational delivery of services as defined in 4d above;
- b. WMO needs to keep in sight that meteorological conditions may impact significantly on non-meteorological crises;
- c. Develop and improve the supply of geo-referenced information;
- d. Define metadata needs of the Humanitarian Agency community;
- e. Provide guidance and assistance to Members in developing a legal framework that would strengthen and support the role of NMHSs as authoritative providers of warnings of high impact weather.

