World Meteorological Organization

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Introduction to the WMO Flood Forecasting Initiative

The expected outputs from the meeting during its first constituent session are:

- Agreement on the scope of work and approach to be taken by the FFI-AG, within its ToR;
- Improved understanding of the current initiatives and activities undertaken in the framework of the WMO Flood Forecasting Initiative;
- Agreement on specific actions to be undertaken and a Work Plan associated with these actions;
- Agreement on how the work of the FFI-AG should be undertaken including its outreach to Members, relevant Commissions, Technical Support Partners, and Development Partners (donors);
- Conclusions and recommendations (including target audience), based on the presentations and discussions.

History of the WMO-FFI

- Started from an Expert Meeting in 2003
- Technical Conference on Improved Meteorological and Hydrological Forecasting, Geneva, November 2006
- On request of CHy, development of an Activity Plan in support of the FFI-Strategy and Action Plan, Geneva, November 2009

History of the WMO-FFI

- In 2011, the World Meteorological Congress (Cg) passed Resolution 15 (Cg-16) establishing the WMO Flood Forecasting Initiative - Advisory Group (FFI-AG) with the objective to provide guidance and advice on the hydrological forecasting elements of a number of flood-related initiatives and programmes in progress under WMO programmes, and to provide broad-based support to improve collaboration between the meteorological and hydrological communities for improved flood forecasting related practices.

Problem Statement

- Many meteorological and hydrological services do not have adequate means or the knowledge to provide forecasting services in flood critical situations and to communicate effectively with disaster management authorities

Current Weaknesses of Forecasting Systems (1)

- Meteorological information and forecasting are often not provided in a form usable for hydrological pre-warnings and forecasting;
- Meteorological forecasts are often qualitative and not quantitative;
- Extreme meteorological and hydrological events are not risk qualified; (What does i.e. severe rainfall mean for the input to hydrological forecasting or the general public?)
- Advanced methods and techniques including the use of NWP products and ensemble forecasting techniques are not widely used in the meteorological and hydrological communities;

Current Weaknesses of Forecasting Systems (2)

- Fragmented data holdings, non-standardized data archiving, data formats and transmission protocols severely limit timely access to data and information;
- There is a pronounced “communication gap” between meteorological and hydrological services with regard to forecasting concepts, methods, products and services, outreach to end-users and even the technical language used;
- Forecasting is often not objective-driven; (different users of forecasting information require specific forecasting products) and
- Warnings directed to disaster management agencies and the general public use technical vocabulary not easily understood by those who should benefit from the warnings.

SCOPE OF THE SAP (1)

- The SAP promotes the preparation of national implementation plans, to be adapted in accordance with current national/regional flood forecasting capabilities, specific requirements and priorities.
- The SAP suggests the implementation of demonstration projects at various levels (country-specific, sub-regional and regional projects), to showcase the value of increased cooperation between NMSs and NHSs in flood forecasting (Doc 9).

SCOPE OF THE SAP (2)

- At the regional level, the SAP advocates the establishment of a framework under which partnerships and development assistance could be provided and coordinated amongst services while taking advantage of existing regional and international arrangements.
- The SAP also addresses requirements of well - established flood forecasting and warning systems for their further improvement through the development and use of new technologies.

SAP ACTION DOMAINS (1)

I. Strengthening of Observing and Information Systems

II. Improvement of Meteorological Forecasting Practices and Products

III. Improvement of Hydrological Forecasting Practices and Products

IV. Strengthening of Institutional Coordination, Cooperation and Integration between NMSs and NHSs

V. Strengthening of Cooperation and Coordination between Countries on issues related to Flood Forecasting

SAP ACTION DOMAINS (2)

VI. Formulation of Technical Documentation and Guidelines related to Flood Forecasting

VII. Supporting Disaster Management

VIII. Addressing Climate Variability and Change in the Light of Extreme Events

IX. Demonstrating the Value of Meteorological and Hydrological Data, Information and Products

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Thank you for your attention