



World Meteorological Organization

# Commission for Hydrology(CHy) Activities

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# Commission for Hydrology 2<sup>nd</sup> AWG

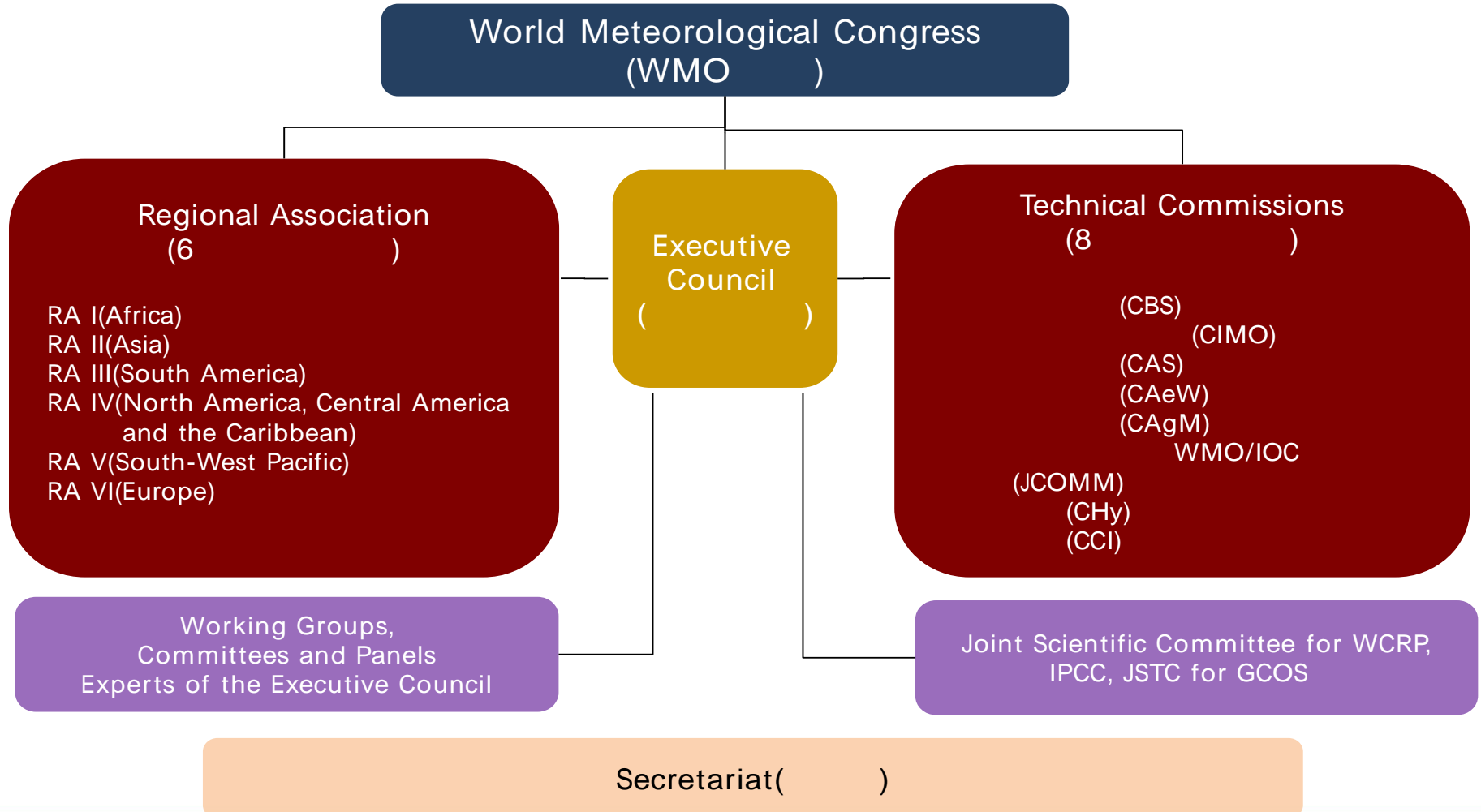
Geneva, 8 to 12 October 2018

1. Discussion of the WMO Governance Reform
2. Preparation of the CHy-Ext
3. Review of Progress of the Work Programme in the Three CHy Focus Areas and Decisions on its Future Implementation





# 1. WMO Governance Reform



## Present bodies of WMO



# 1. WMO Governance Reform

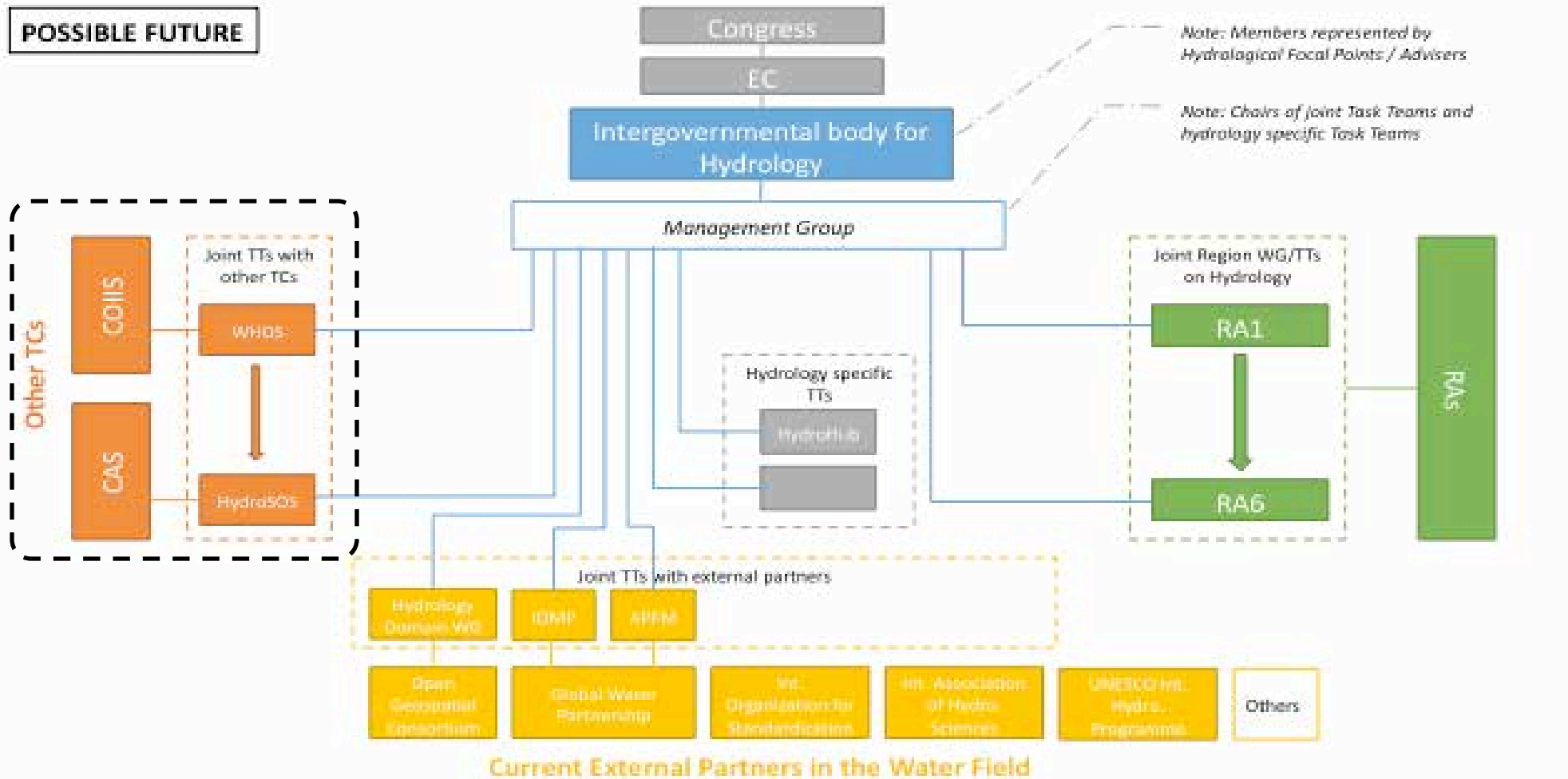


**Proposed new bodies of WMO**



# 1. WMO Governance Reform

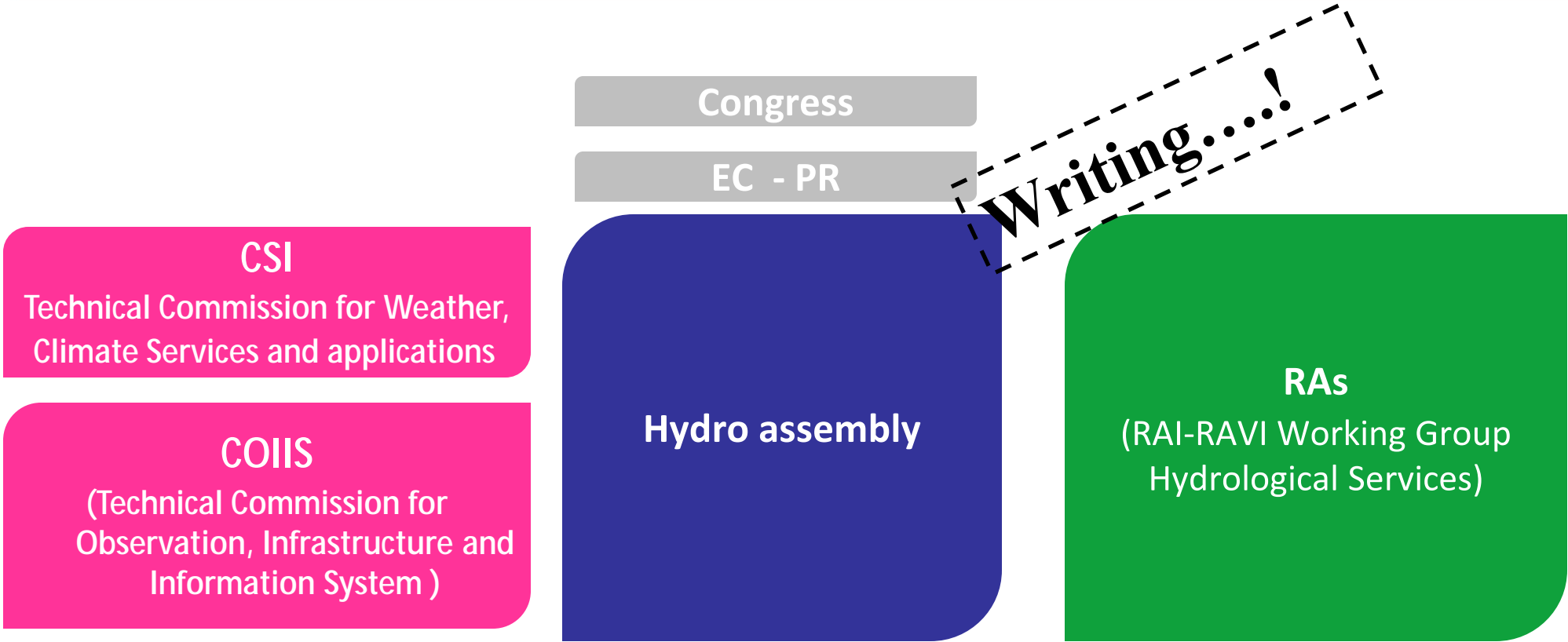
POSSIBLE FUTURE



## A. Proposed new bodies of WMO by AWG



# 1. WMO Governance Reform



## B. Proposed new bodies of WMO by AWG



## 2. Preparation of the CHy-Ext

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### COMMISSION FOR HYDROLOGY

Technical Conference “Future Hydrological Priorities and Arrangements”

Geneva, 11 to 13 February 2019

Provisional Programme

<https://public.wmo.int/en/events>

- Keynote : Why reform?
  - Presentation : the WMO Constituent Bodies Reform, the International Water Scene
  - Panel Discussion : The grand challenges in water and the role of WMO in addressing them
  - Take-away messages on the effective participation of WMO in the global agenda
  - Presentation: How to integrate hydrological activities in the proposed new WMO structure?
  - Report from breakout groups to plenary
  - Breakout groups: Review of ToRs of proposed bodies
  - Adoption of TECO conclusions and recommendations on the two documents for CHy-Ext
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## 2. Preparation of the CHy-Ext

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**COMMISSION FOR HYDROLOGY Extraordinary session**  
Geneva, 13 and 14 February 2019

### **1. ORGANIZATION OF THE SESSION (Tentative Agenda)**

- 1.1 Opening of the session
- 1.2 Consideration of the report on credentials
- 1.3 Adoption of the agenda
- 1.4 Establishment of committees
- 1.5 Concepts guiding the conduct of the session
- 1.6 Organizational questions
- 1.7 Closure of the session

### **2. EFFECTIVE PARTICIPATION OF WMO IN THE GLOBAL WATER AGENDA**

### **3. RECOMMENDATIONS TO CG-18 ON WAYS TO INTEGRATE HYDROLOGICAL ACTIVITIES INTO THE NEW WMO STRUCTURE**

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## 2. Preparation of the CHy-Ext

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### Draft Pre-Session Discussion Questions

#### Grand challenges:

1. What are the major external changes and dynamics (technological, societal, etc.) that demand a response by the National Hydrological Services and the hydrological community of WMO?
2. What are the top three areas where the capacities of National Hydrological and Hydrometeorological Services need to be strengthened, in particular through international cooperation?

#### What can WMO do for you :

1. Which WMO programmes, project or initiatives in hydrology do you currently value the highest and what is missing?
  2. What do you think is needed to:
    - a) Ensure production and dissemination of flood warnings that reach all people in your country?  
What do you expect from WMO in this regard?
    - b) Drought-proof your country? What do you expect from WMO in this regard?
    - c) Be informed enough to manage water wisely for food, energy, health, and the biosphere?  
What do you expect from WMO in this regard?
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## 2. Preparation of the CHy-Ext

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### Draft Pre-Session Discussion Questions

3. Is there anything WMO can do to make the government agencies that fund your operational hydrology activities more knowledgeable about the efficiency and essential character of these services to the social and economic well-being of your country?

#### How can WMO structure improve:

1. What are the key fora (for example: regional or global working groups, Regional Association, Technical Commissions, Executive Council/Congress) through which your organization currently engages, or would like to engage, with WMO in the field of operational hydrology?
  2. Meteorology and hydrology in many countries are dealt with by different government organizations. What is your suggestion to make the WMO structure better adapted to the reality of such management of different sectors, while still promoting coordination of meteorology and hydrology in member countries?
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## 3. Three CHy Focus Areas Work Programme

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revised and updated the workplan of the three focus areas

Focus Area 1. Coordination and Implementation Support

Focus Area 2. Measurement, Monitoring and Infosystems

Focus Area 3. and Hydrological Applications, Products and Services

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# 3. Three CHy Focus Areas Work Programme

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## Focus Area 1. Coordination and Implementation Support

RAs: ensure that the activities of regional associations, and, in particular, the Regional Association Working Groups on Hydrology (RA WGHs) are coordinated within overall Commission activities and that there is effective communication between the Commission and the RA WGHs;

RHAs attending HydroConference and AWG-2  
– Chair of RAI WGHs (Dr. Sung Kim)

RA II – WG and DWAT workshop Nov 2018 – AWG participation

Regional hydrological considerations at CHy-Ext in the framework of WMO reform

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# 3. Three CHy Focus Areas Work Programme

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## Focus Area 1. Coordination and Implementation Support

APFM and IDMP: represent CHy, in concert with the relevant AWG member for hydrological applications, products and services, on the Advisory and Management Committees of APFM; and represent CHy on the Advisory Committee of the IDMP, as per the operational guidelines of the two programmes;

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# 3. Three CHy Focus Areas Work Programme

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## Focus Area 2. Measurement, Monitoring and Infosystems

- Project X: Chair the Management Committee, finalize and test basic uncertainty analysis (UA) software, develop UA capacities for ADCP, including standardization of computation of discharge, discharge estimation via various techniques, and produce guidance documentation for calibration and performance testing, design of “regattas” for intercomparison of flow measurement instruments and techniques, ultimately supporting quantification of discharge uncertainties (with error bands at stated confidence levels);
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# 3. Three CHy Focus Areas Work Programme

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## Focus Area 2. Measurement, Monitoring and Infosystems

- Project X Milestone
    - Request updating of NHSs Q standards
    - Regatta guidance doc completed/finalized
    - ADCP dataset(s) to conduct software comparisons collected
    - Other meter discharge datasets to conduct UA schemes/software comparisons collected
    - Datasets collected & selected for comparison of rating UA schemes.
    - Conduct ADCP UA software tests w/datasets
    - Conduct other meter UA tests w/ datasets
    - Conduct comparison of rating UA schemes with datasets
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# 3. Three CHy Focus Areas Work Programme

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## Focus Area 2. Measurement, Monitoring and Infosystems

- Networks: further develop guidance on hydrometric network optimization and prioritization of stations taking into account all users' needs, including the modelling community; update recommendation on station density; also consider the possibility of promoting the concept of hydrological “heritage” stations;
  - Review the first version of the guidance on hydrometry network optimization contributed by Korea before RA II WGH meeting
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# 3. Three CHy Focus Areas Work Programme

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## Focus Area 3. and Hydrological Applications, Products and Services

- A) APFM:

- 1) work with APFM on provision of guidance and training material on E2E EWSs for Flood Forecasting through the IFM HelpDesk, and other topics such as preparation of guidelines on how to formulate numerical weather prediction information for use in flood forecasting, consistent with the FFI-AG Work Plan of 2016-2019.

- 2) Represent CHy on the APFM AC/MC meetings.

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# 3. Three CHy Focus Areas Work Programme

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- Milestone

- APFM AC/MC meeting (now SBP Forum)
  - web portal;
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# 3. Three CHy Focus Areas Work Programme

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## Focus Area 3. and Hydrological Applications, Products and Services

- B) WMO Hydrological Status and Outlook (Including Sub-seasonal to Seasonal Hydrological Prediction)
  - Product delivery web portal



## 3. Three CHy Focus Areas Work Programme

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### Focus Area 3. and Hydrological Applications, Products and Services

- **E) Implementation Strategy for the End-to-End Early Warning Systems (E2E EWS) for flood forecasting (using the Community of Practice approach):**
  - Milestone
    - E3 Launching of CoP and web portal HelpDesk
    - E4 3 pilot projects established CHy16;
    - E5 Review guidelines for verification of hydrological forecasts (RA II) has been reviewing by Narendra



# 3. Three CHy Focus Areas Work Programme

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## Focus Area 3. and Hydrological Applications, Products and Services

- **G) WRM and drought:**  
**develop and/or recommend tools for water resources assessment and planning to assist decision-making**
  - Milestone
    - Draft manual of DWAT, DWAT workshop – October 2017Development of snowmelt function, DWAT webpage
  - Progress
    - DWAT English manual and software tool are being reviewed by 3 CHy experts (Yuri, Marcelo, Tom).
    - 1st Global Workshop on DWAT in 28-30 Nov 2018, Bhutan
    - Once finalized, DWAT will be made available through the WMO website.
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# Thank you Merci



WMO OMM

World Meteorological Organization  
Organisation météorologique mondiale