**CHy Task Team on Interoperable Models and Platforms (TT E2)**

**4th Teleconference, Friday 15 June 2018, 3 pm CEST**

**Agenda**

1. Adoption of the agenda
2. Update and Action Items from the Joint Teleconference of TT E1 and TT E2 Leaders
   1. Status of TT E1
   2. Action: Guidance material on NWP formulation for flood forecasting
   3. Action: Literature to Hwirin on river-ocean coupling including CIFDP
   4. Action: Flood Modelling Template – Yuri to provide major types of flood mechanisms
3. Review of actions identified during the previous teleconference
4. Planned way forward for the dissemination of the model/platform templates to  Regional Hydrology Advisors, NMHSs, OPACHE, AWG of CHy
5. Other Business
6. Next Call

**Meeting Minutes**

**Participants**

The following experts attended the teleconference: Yeshewateswa Hundecha, Etienne Le Pape, William Scharffenberg

Sends apologies: Hwirin Kim, Jeff Perkins

From WMO Secretariat: Paul Pilon, Tania Gascon, Roberto Silva Vara, Giacomo Teruggi.

Paul Pilon moderated the teleconference.

1. **Adoption of the Agenda** (**Annex I**)

The agenda was adopted without modification.

1. **Update and Action Items from the Joint Teleconference of TT E1 and TT E2 Leaders**

Paul summarized the teleconference held between Yuri Simonov and Hwirin Kim:

2.a advances in TT E1 template development (80-90% complete), still need the development of one sheet on infrastructure to be added to the template.

Also, a SWOT analysis will be added to complement the outcomes of the assessment matrix application. There was an agreement between the Team Leaders that there should be text developed to introduce the different steps and pieces of both TT activities, to be added to the website.

2.b Guidance material on NWP for flood forecasting needs to be developed by Yuri and Narendra Tuteja in the framework of his CHy activities, but so far no development has been undertaken. Yuri was also requested to share with Hwirin reference material on coastal flooding. This could also constitute interesting background material for the TT E2.

2.c TT E1 developed a list of triggering mechanism for flooding. It was agreed that this list be reflected in the Hydrological Modelling template, to allow association of the specific model for each triggering mechanism. Bill already provided feedback on this prior to the teleconference and included it within the template circulated prior to the meeting.

**ACTION 2c:** Secretariat to upload the minutes of the two TT Leaders teleconference on the working website.

**ACTION 2d:** Secretariat to follow up with Yuri and Narendra on hydrological forecast requirements for NWP

1. **Review of actions identified during the previous teleconference**

**General remark:**

* Has the Secretariat been kept in copy to communications between TT members? **Yes. The Secretariat has received input from Bill (shortly before the teleconference). No other exchange occurred among TT members, therefore no revised templates have been circulated. In the following, a detailed report on the action to be taken is provided. Please refer to the minutes of 2nd and 3rd teleconference to better understand the discussion behind each action.**

**ACTION 1a**: Bill to write a short description for the next videoconference, as an example, of time requirements and complexity to install, configure and implement a model for a forecast application. Everyone to add in their model template the categories “cost” and “complexity” (of application). **DONE. Bill circulated an updated table shortly before the teleconference.**

**ACTION 1b**: Discuss via email about a possible name to label the category “complexity”, considering 1) installation and configuration 2) capacity building. Indicate the level of expertise needed at each step (e.g. IT expert, GIS expert, Hydrologist-BSc or MSc or PhD). **PENDING. No exchange between TT members on this issue yet via email.**

Same categories mentioned by Yeshewa can be considered for inclusion in other templates. All authors to include them in their respective tables (Refer to table below for leads and reviewers). **PENDING**

**ACTION 2b**: Once received from Bill, everyone to consider his revised inputs in the redrafting of their templates. Once revised all to send their templates to the assigned reviewers. Iterate the process of including Bill’s input via email to the rest of the group. If agreement not met, then call for a teleconference. Anticipate completion of revised template distribution and completion of reviews prior to the next videoconference. **PENDING.**

**ACTION 3b**: Each template’s main author is to ensure consistency with Bill’s example. This item is embedded into Actions 2b and 3a. This is to be completed prior to the next videoconference. **PENDING**

**ACTION 4a**: Secretariat to share with Etienne all background material – CHy decision leading to the TT E2 activities; report of the CoP meeting in November 2017; available templates; website of the CoP meeting; presentation on the requirements for the models and platforms to be included in the inventory. **DONE**

**ACTION 4b**: Etienne offered to share a template on technology used in SCHAPI possibly including Telemac and the POM. This effort would also provide an opportunity to check the user-friendliness of the templates, and how clear the “guidance” column entries are for a new user. **PENDING: a first draft has been circulated, but Etienne still to finalize it and share it with the Secretariat**

**ACTION 4c**: Secretariat to set up a “blind” webpage (i.e. not linked to any other webpage) to act as a repository for all the material developed so far. A disclaimer on what is the page’s purpose should be evident for any random user (not part of the TT) ending up on the webpage through a google search, i.e. something like “this website is a working space for the TT E2. All information herewith contained is public but should not be considered final yet. Finalized results will be uploaded on the official FFI website once available”. **DONE**

**ACTION 4d**: according to the work plan of the TT E2 (page 13 of the [CoP report](http://www.wmo.int/pages/prog/hwrp/chy/E2E-EarlyWarningSystems/flood-forecasting/documents/CoP_FF_2017_Final_Report.pdf)), input is needed from Yuri and/or Narendra on NWP requirements for hydrological models. Secretariat to check status of advancement of the work plan and liaise with the TT to set new deadlines. **PENDING**. The issue has been mentioned to Yuri during the joint TT E1 and TT E2 Leaders teleconference, but follow up by email is still needed (Refer to Action 2d).

**ACTION 5a**: TT E2 members to send to the Secretariat other proposed agencies that are performing operational hydrological forecasting. The Secretariat will propose an approach to minimize the work for the NHS to fill in templates, based on that described above (item 5). **PENDING**

**ACTION 5b**: Secretariat to develop a strategy for circulation and present it to the TT on the next teleconference call. **PENDING: Secretariat developed a strategy presented under agenda item 4 below**

**ACTION 6c (numbering continues from past teleconference to avoid confusion between actions)**: Secretariat to re-circulate the UNU survey and request UNU to share with WMO the survey outcomes. **DONE**. Feedback from UNU indicated that only Jeff’s feedback was received through the Secretariat. Secretariat shared concerns by Hwirin regarding the use of the online survey. Also, reply to some of the questions would need information from institutions external to the NHS (e.g. civil protection). To date, UNU informed that about 31 countries replied to the survey.

**ACTION 7a:** Secretariat to follow up with Bill and check on when he will be able to complete Action 1a and on his availability for a teleconference on 15 June. If Bill is not available on the 15th, a Doodle poll will be launched by Roberto. **DONE**

**Review of the available templates (if any)**

The review is still ongoing, as reported above. As a reminder, the below table summarizes responsibilities for each template:

|  |  |  |
| --- | --- | --- |
| **Template** | **Main author** | **Reviewer** |
| **Hydrologic Model** | Bill | Yeshewa |
| **Hydraulic Model** | Jeff | Bill |
| **Reservoir model** | Hwirin | Jeff |
| **Platforms** | Jeff | Hwirin |

**Discussion:**

During the teleconferenceBill mentioned that three types of flooding (in relation to their triggering mechanism) are to be mainly considered, being urban, flash and riverine floods. To accommodate specific flooding cases a line called “special” has been introduced in the template. Comments are welcome over email in the next days, but no immediate feedback was received on this issue during the teleconference, other than it looked very good. Additional guidance text might be needed in the template, and writing assignments need to be assigned. Clarification is also needed on the topic of “urban flooding”: is it flash flood in a urban context, versus flash flooding in a rural context? Besides clarifying with Yuri, Secretariat to check official definitions on this issue.

Regarding complexity, Bill added a new section with few additional criteria. Feedback is welcome. He also shared a Synthetic Watershed document providing an example to help illustrate how much time would be needed in terms of data preparation, model calibration and verification. Bill to add a row and discuss with Yeshewa offline to fine tune the discussion on complexity. Data ingestion, data QA/QC should also be considered into this complexity section.

**ACTION 1c:** Secretariat to check definitions of urban flooding and flash flooding

**ACTION 1d:** Secretariat to circulate the minutes to all TT E2 participants inviting them to provide their feedback on the complexity issue

Bill also presented the Synthetic Watershed as an example to apply a hydrological model to the watershed. This would provide an idea of the time needed to configure and use a specific model, acting as a benchmark. We might need however more examples to properly represent application of models on reservoir basins. The example might also have a didactical purpose. It was also noted that the Synthetic Watershed had two reservoirs upstream of cities, implying that a “watershed” modelling system might be needed to reflect their operation on flooding at these downstream Points of Interest.

**ACTION 1e**: Seek feedback from other TT E2 members on the idea of the synthetic watershed and its potential purpose(s), including sharing thought on what input is needed to reflect reservoir operations (models) or other action needed to refine their impacts on downstream conditions (e.g. flow or stage forecast)?

1. **Planned way forward for the dissemination of the model/platform templates to  Regional Hydrology Advisors, NMHSs, OPACHE, AWG of CHy**

The Following proposal was circulated by Jeff:

“Send some information on what we are doing and the reference guide and completed example templates

In the email,  request them to

1. provide names of the hydrologic models they use operationally ?

2. provide names of the hydraulic models they use operationally ?

3. provide names of the platforms they use operationally ?

4. provide names of the reservoir routing models they use operationally ?

5. Would you willing to complete templates on these models (if not yet available) as part of the community of practice

This gives us a really useful audit of who uses what and then we can go back and request people to fill in the templates once and maybe use as second person as a reviewer.”

To avoid having x Members providing information on the same platform, it is suggested to send at a later stage a second request to selected Members who agreed to complete templates regarding models/platforms of interest.

Bill suggests, once the first phase is completed, to contact directly the developers of the model/platform to get the template filled.

**ACTION 4f**: Secretariat proposes to send the request to HAs, OPACHEs, CHy members, AWG and any other TT E1 member not already included in the previous categories.

**ACTION 4g**: Secretariat to draft text of the email to be circulated

1. **Other Business**

The Secretariat wished to inform the TT E2 members about a call for Hydrological Models and Integrator Systems for Operational Fluvial Flood Forecasting issued by the newly launched national flood forecasting centre in Ireland, but no time was available to discuss this issue.

1. **Next Call**

Proposed date of the next call is week of 2 July, 7 AM CEST, while for the week of 9th most participants were not available. A doodle poll will be launched by the Secretariat.

**Action 6d**: Secretariat to launch Doodle poll to ascertain best timing of next call.