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| **WORLD METEOROLOGICAL ORGANIZATION**  **COMMISSION FOR BASIC SYSTEMS OPAG on DPFS**  **MEETING THE REGIONAL SUBPROJECT MANAGEMENT TEAM (RSMT) OF THE SEVERE WEATHER FORECASTING DEMONSTRATION PROJECT (SWFDP) IN BAY OF BENGAL**  Colombo, Sri Lanka  28 November – 1 December 2018 |  | WDS-DPFS/RAII-SWFDP-BoB-RSMT/Doc.8  (20.XI.2018)  \_\_\_\_\_\_\_  ENGLISH ONLY |

**Review of SWFDP database mechanism**

**(for submission of progress reports by NMHSs)**

*(Submitted by the Secretariat)*

##### Summary and purpose of document

This document provides information about SWFDP database development including a template and key elements of a Quarterly Progress Report to be submitted on-line through SWFDP database by the benefitting countries of SWFDP

##### Action Proposed

The meeting is invited to review and consider the information in updating Regional Subproject Implementation Plan (RSIP) for SWFDP-Bay of Bengal.

**Review of SWFDP database mechanism**

**1. SWFDP database for submission of progress reports by NMHSs**

WMO Secretariat has developed a SWFDP database using WMO's Country Profile Database (CPDB) platform (https://www.wmo.int/cpdb/). The main objective of the SWFDP database is to facilitate the SWFDP participating countries in each region to on-line submit their progress reports in an efficient and convenient (paper-free) way and to improve monitoring and tracking of the progress of each SWFDP regional subproject and improve the overall forecasting and warning system. The information obtained will also be helpful in preparing feedback for the donors to secure necessary funds for the continuity and sustainability of SWFDP which is mainly supported through extra-budgetary resources.

The SWFDP database was developed during 2013-2014. The database has been fully functional for submission of progress reports by NMHSs since January 2015. The NMHSs in Eastern Africa and South-East Asia have been submitting their progress reports on-line through SWFDP database since January 2015 and January 2016 respectively.

*The SWFDP database is password protected and can be accessed by the designated focal points for SWFDP in each NMHS by using his/her email address as username and after resetting his/her password.*

**2. Progress Reports and case studies**

The NMHSs involved in a SWFDP regional subproject are required to provide quarterly progress reports and perform case studies after start of demonstration phase of the subproject. A progress report should contain information about severe weather events observed, number of warnings issued during the reporting period, verification of forecasts/warnings including probability of detection and false alarms, products used in preparing severe weather forecasts and warnings (e.g. various NWP/EPS products, Daily Guidance product issued by the lead Regional Centre, Nowcasting products etc.), dissemination channels, clients/users’ feedback, outcomes of case studies etc. The quarterly progress reports shall be prepared and submitted immediately in the following month of each quarter as per schedule as agreed by the region and as mentioned in the Regional Subproject Implementation Plan (RSIP).

To ensure that the needed information is reliably completed it is proposed that the information for the evaluation of severe events be collected by using an “evaluation form” (e.g. MS Excel file). A template of evaluation form is available in **Annex-I.** The evaluation form should be formatted in a convenient way in order to simplify the processing and archiving of the data. The evaluation form has to be completed by the NMHS when a severe weather event has been observed or when a severe weather event has been forecast. The products that have been used in the development of severe weather forecasts and warnings must also be archived for reference and use in case studies. The outcomes of the case studies should be reported as part of quarterly progress reports through SWFDP database and full electronic versions of the case studies should be sent to the RFSC Ha Noi with cc to WMO Secretariat via eMail. The RFSC Ha Noi shall analyze and evaluate the case studies received from NMHSs. Such analyses is expected to help the RFSC Ha Noi in improving Daily Guidance product towards the NMHSs. The analyses and key findings of the case studies shall also be shared with contributing Global Centres for overall improvement of ‘cascading forecasting process’ with improved high value global NWP information.

Further, it will be particularly important for participating NMHSs to keep regular contacts with users i.e. public, disaster management and civil protection authorities (DCMPAs) and the media to ensure smooth flow of information with a view to measuring the level of user satisfaction. The feedbacks from users are quite useful to improve the severe weather forecasting and delivery of warning services. The NMHSs should regularly obtain feedbacks using the ‘user assessment questionnaires’. The samples of ‘user assessment questionnaire’ for the public, DMCPAs and the media are available in **Annex II**.

**3. Key elements of progress report**

The following is the list of key elements and information that need to be reported in quarterly progress reports for on-line submission through SWFDP database:

1. Reporting Period (Start date to end date)
2. Severe events (e.g. heavy rainfall, strong winds, high waves, flooding etc.)
3. Reporting period highlights (e.g. duration and amount of rainfall, impact of rainfall and/or strong wind and high waves, affected areas, damages (if any), coordination with disaster management offices etc.)
4. Clients (e.g. Disaster Management Offices, media, humanitarian organizations etc. New clients can also be added)
5. Client feedback (e.g. adequacy and effectiveness of the warning and how it was used etc.)
6. Desired products (e.g. NMHS may propose a demand for additional product(s) from global and/or regional centres if already not available etc.)
7. Forecast Period and Area (to provide information about area of responsibility of an NMHS and the period for which NMHS issues forecast etc.)
8. Dissemination channels (e.g TV, radio, mobile SMS etc. New channel can be added)
9. Observing Systems (e.g. basic synoptic network, AWS network, radar and satellite information receiving stations etc.)
10. Workshop (to provide title, duration and summary outcome of the training workshops arranged for the forecasters, emergency managers, media, school officials, general public etc. during the reporting period)
11. Product usage (to select various products which are available from participating global and regional centres and are used in making forecasts at national level etc.)
12. Local forecasting tools (to provide information about the existing forecasting tools used at the NMHS and any new forecasting tool implemented at the NMHS etc.)
13. Resources (to provide information about the budget of NMHS and the number of forecasters and observers working in NMHS etc.)
14. Case Studies (to provide title and description of case studies related to the severe event(s) observed during the reporting period, key findings of the study etc.)
15. Related projects (to provide information about the on-going and new related projects etc.)

**Annex I: Template of Evaluation Form**



**ANNEX 2 : USER ASSESSMENT QUESTIONNAIRE (Samples)**

**2.1 Evaluation Questionnaire for the Public**

Q1. Do you get the warnings and forecasts issued by the National Meteorological Service?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

Q2. Do the warnings and forecasts arrive early enough for you to take any actions?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

Q3. How Do you get the forecasts and warnings? (Can choose more than one)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Radio | TV |  | Internet | Telephone | Local radio  network | Other(s) |
| □ | □ |  | □ | □ | □ | □ |

If other(s), please specify:

Q4. Do you understand the warnings and forecasts?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

Q5. Do you take any action in response to the warnings and forecasts?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

If yes, what did you do?

Q6. The warning was useful to protect your (Can choose more than one)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| family | home | boat | farm | animals | other(s) |
| □ | □ | □ | □ | □ | □ |

If other(s), please specify:

Q7. Are warnings issued by the National Meteorological Service correct?

|  |  |  |
| --- | --- | --- |
| Yes | No | More or less |
| □ | □ | □ |

Q8. Are forecasts issued by the National Meteorological Service correct?

|  |  |  |
| --- | --- | --- |
| Yes | No | More or less |
| □ | □ | □ |

Name: Date:

**2.2 Evaluation Questionnaire for Disaster Management**

Q1. Did you get the warnings for the severe weather events in the period…to….? (Specify)

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

Q2. Did the warnings arrive early enough for you to take the necessary actions according to your specified responsibilities?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

Q3. How did you get the warnings? (Can choose more than one)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Radio | TV | Fax | Internet | Telephone | Local radio  network | Other(s) |
| □ | □ | □ | □ | □ | □ | □ |

If other(s), please specify:

Q4. Did you understand the warnings?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

Q5. Did you take any action in response to the warnings?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

If yes, what did you do?

Q6. In your opinion were the warnings correct?

|  |  |  |
| --- | --- | --- |
| Yes | No | More or less |
| □ | □ | □ |

Q7. Do you have any suggestions on how to improve the warning process, including dissemination methods, format, language etc.

Post and name: Date:

**2.3 Evaluation Questionnaire for Media**

Q1. Do you get the warnings for the severe weather events and forecasts from the National Meteorological Service?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

Q2. Do the warnings and forecasts arrive early enough for you to take the necessary actions according to your specified responsibilities?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

Q3. How do you get the warnings and forecasts? (Can choose more than one)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Radio | TV | Fax | Internet | Telephone | Local radio  network | Other(s) |
| □ | □ | □ | □ | □ | □ | □ |

If other(s), please specify:

Q4. Do you understand the warnings and forecasts?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

Q5. Are the language and format clear enough for you?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

Q6. Do you take any action in response to the warnings and forecast you receive?

|  |  |
| --- | --- |
| Yes | No |
| □ | □ |

If yes, what do you do?

Q7. In your opinion are the warnings and forecasts accurate?

|  |  |  |
| --- | --- | --- |
| Yes | No | More or less |
| □ | □ | □ |

Q8. Do you have any suggestions on how to improve the warning and forecast process, including dissemination methods, format, language etc.

Post and name: Date: