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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 SOUTHEAST ASIA**  Ha Noi, Viet Nam, 11-14 August 2015 |  | DPFS/RAII/SeA-SWFDP-RSMT /Doc. 5.1(5)  (10.VII.2015)  \_\_\_\_\_\_\_  Agenda item : 5.1  ENGLISH ONLY |

**Contributions of the DWD, Germany to SWFDP in Southeast Asia**

*(Submitted by Detlev Majewski, DWD, Germany)*

**Summary and purpose of document**

This document describes the current and planned activities of DWD, Germany and its contribution to Severe Weather Forecasting Demonstration Project in Southeast Asia (SWFDP-SeA).

**Action Proposed**

The meeting is invited to review the current and planned activities of DWD and discuss its role in and synergies between these activities and SWFDP-SeA.

**Contribution of DWD (Germany) to the SWFDP-SEA**

DWD introduced its new nonhydrostatic global model ICON (ICOsahedral Nonhydrostatic) on 20 Jan. 2015 with a horizontal grid spacing of 13 km (6.5 km over a European nest domain) and 90 layers. ICON replaced the former operational hydrostatic global model GME (20 km, 60 layers). ICON outperforms GME, especially for tropical regions, due to the higher horizontal and vertical resolution, more advanced numerical schemes and state-of-the-art physical parameterizations. In 2016 the operational introduction of a hybrid ensemble-based variational data assimilation (ICON-EDA) including a short-range ensemble prediction system (ICON-EPS) will lead to a significant further improvement of the quality and usefulness of ICON forecasts.

Via the internet DWD provides lateral boundary conditions based on ICON forecasts to more than 35 regional (hydro-) meteorological services worldwide which run the nonhydrostatic regional NWP system COSMO (Consortium for Small Scale Modelling, consisting of the weather services of Germany, Greece, Italy, Poland, Romania, Russia and Switzerland).

DWD collaborates with the National Hydro-Meteorological Service of Viet Nam (VHMS) in the field of regional NWP since October 2000 when VHMS, together with the National University of Vietnam (VNU) introduced DWD’s former regional NWP model HRM with a grid spacing of 28 km and 20 layers. In November 2008, VHMS hosted the 3rd International HRM Workshop, and in 2010 VHMS increased the resolution of its operational HRM to 14 km and began first tests of a 7-km high resolution version. Since 2012 VHMS runs the regional nonhydrostatic COSMO model operationally.

DWD offers a free annual “*Regional NWP, Environmental and Climate Modelling Training Course*” to all regional (hydro-) meteorological services, the next training is from 15 to 23 February 2016.