Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release
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Subject: India Meteorological Department Commissions Flash Flood Guidance Services for South Asia

Dr. M. Rajeevan, Secretary, Ministry of Earth Sciences dedicated Flash Flood Guidance services, first of its kind for South Asian countries namely India, Bangladesh, Bhutan, Nepal and Sri Lanka on 22 October 2020. The system was launched virtually and was participated by distinguished National and International dignitaries including Dr. Hwirin Kim (Head of Hydrological and Water Resources Services Division, World Meteorological Organization), Dr. Konstantine P. Georgakakos (Director, Hydrologic Research Centre, USA), Shri G.V.V. Sarma IAS (Member Secretary NDMA, India), Dr. Rajendra Kumar Jain (Chairman, Central Water Commission, India) and Director General of Meteorology and Permanent Representative with WMO of the participating countries namely Shri Karma Dupchu, (Bhutan), Shri Saraju Kumar Baidya (Nepal) and Shri Athula Karunanayake (Sri Lanka) and Shri. Bidyut Kumar Saha (Hydrological Advisor to PR of Bangladesh to WMO).

In his inaugural address, Dr. M. Rajeevan, Secretary, Ministry of Earth Sciences, who was the Chief Guest of the function, brought out the need for enhancing the observational network for rainfall and soil moisture to improvise the performance of the system. An automated mode of dissemination is to be established with the stakeholders along with the use of social media, so that the information reaches to concerned disaster authorities in a timely manner. Regional & International coordination with member countries, Hydrologic Research Center & World Meteorological Organization must be strengthened for exchange of data, expertise, development and sustaining the services in the region.

Dr. M. Mohapatra, Director General of India Meteorological Department and Permanent Representative of India with WMO delivered the opening address, highlighting salient features of the system and appreciated the collaborative work done

in the field of capacity building for forecasting hydro-meteorological hazards. He assured the member nations that the Guidance for flash floods in the form of Threats (6 hours in advance) and Risks (24 hours in advance) will be provided by Regional Centre to National Meteorological & Hydrological Services, National and State Disaster Management Authorities and all other stake holders for taking necessary mitigation measures to reduce the loss of life and property in the South Asian Region countries namely India, Bangladesh, Bhutan, Nepal and Sri Lanka. This will enable all the member countries for issuing impact-based forecasting at watershed and also city level, of floods which are very sudden and of short duration.

Flash Floods are highly localized events of short duration with a very high peak and usually have less than six hours between the occurrence of the rainfall and peak flood. There is general lack of flash flood warning capabilities and capacities of the nations across the world. Recognizing that flash floods have a particularly disastrous impact on lives and properties of the affected populations, the Fifteenth WMO Congress had approved the implementation of a Flash Flood Guidance System (FFGS) project with global coverage that had been developed by the WMO Commission for Hydrology jointly with the WMO Commission for Basic Systems and in collaboration with the US National Weather Service, the US Hydrologic Research Center (HRC) and USAID/OFDA.

India Meteorological Department has highly advanced capabilities with respect to computing power, Numerical Weather Prediction, vast observational network (ground, air and space based), and an internationally acclaimed Weather Forecasting System. Therefore, WMO has entrusted India with the responsibility of Regional Centre of South Asia Flash Flood Guidance System for coordination, development and its implementation.

The Flash Flood Guidance is a robust system designed to provide the necessary products in real-time to support the development of warnings for flash floods about 6-12 hrs. in advance at the watershed level with resolution of 4kmx4km for the Flash Flood prone South Asian countries viz. India, Nepal, Bhutan, Bangladesh and Sri Lanka.

India Meteorological Department has tested the performance of the system during recent monsoon seasons in the preoperational mode and the Flash Flood Bulletins were issued to National Hydrological and Meteorological Services in the Region for its validation. The system has in-depth science, dynamics and diagnostics to provide guidance for the possible occurrences of flash floods at local level.