

Opening Remarks

India Meteorological Department Commissioning of Flash Flood Guidance Services for South Asia

Dr. Konstantine Georgakakos, Director, Hydrologic Research Center

Honorable Mr. Secretary of the Ministry of Earth Sciences of India, Honorable IAS Member Secretary of the National Disaster Management Agency of India, Mr. Chairman of the Central Water Commission of India, Directors General of the South Asia participating countries (Bangladesh, Bhutan, Nepal, India, and Sri Lanka), SAsiaFFGS Project Director of India, IT Head for SAsiaFFGS, WMO Head of Hydrology and Water Resources, Colleagues and Friends, good morning! I am Konstantine Georgakakos, and serve as the Director of the Hydrologic Research Center, a public-benefit Research, Technology Transfer and Training Corporation.

On behalf of my colleagues at the Hydrologic Research Center I wish to thank you for the invitation to be present at the Launch of the Flash Flood Guidance Services for the South Asian Region, and to congratulate the Regional Center and participating countries for this launching occasion. I also wish to thank our partners World Meteorological Organization, the U.S. National Oceanic and Atmospheric Administration and U.S. Agency for International Development/Bureau for Humanitarian Assistance for their essential support in the implementation of the South Asia Flash Flood Guidance System and associated training activities.

HRC designed the Flash Flood Guidance System so that it is most useful to the operational forecasters that make assessments about the occurrence of flash floods. It is based on multi-decadal scientific research, science collaboration and technology transfer efforts at the Hydrologic Research Center, but its operational utility we credit to the feedback received over the last 18 years from forecasters around the world as to the types of products and the interface interactions needed to facilitate forecaster-relevant and effective operational activities. This is especially so in this region where the contribution and collaboration of the Regional Center and the participating countries during the various phases of the implementation and training have shaped a well-coordinated operational human-machine system.

Flash floods are one of the most prodigious natural killers and also most difficult to forecast because of the short lived and very local nature. Only by combining available remotely-sensed and on-site hydrometeorological data, extensive data quality control procedures, detailed and good parametric datasets of the land surface, forecaster's experience with local conditions, and continuing validation efforts to reduce uncertainties, do we have a path for providing reliable warnings, leading to life saving response. And you the forecasters are at the forefront and are the highest value-giving component of the human-machine operations.

Sustainability of the operations requires continuing forecaster understanding of remaining uncertainties, continuing and sustainable training within the region by the WMO-certified trainers, and continuing validation efforts. At present we are involved in the enhancement of the SAsiaFFGS implementation with high resolution radar data from the available radars, so that there will be enhanced specificity in the system products and ensuing warnings stemming from higher resolution basins delineated under the radar umbrellas. We look forward to continuing our collaboration during this enhancement effort.

It is also important to mention that products of the system such as the system estimates of the soil water saturation fractions in soil layers may have value for agricultural applications, and we at HRC would be very interested to hear your assessment of such value.

Before I close, I wish to acknowledge and thank my colleagues from HRC that are present in this launching event and who have greatly contributed from our side to reach this operational stage. In first-name alphabetical order: Mr. Cris Spencer, HRC IT Software Development; Dr. Eylon Shamir, HRC Hydrology; Mr. Jason Sperflage, HRC IT Lead; Mr. Randall Banks, HRC IT Interface Development; Mr. Robert Jubach, HRC Program Management; Dr. Rochelle Campbell, HRC Forecaster and Disaster Manager Training; and Dr. Theresa Modrick-Hansen, HRC Hydrometeorology.

Thank you again for this honor. It is a pleasure to be present in the launching event.