



Foreign, Commonwealth  
& Development Office

# SOUTH ASIA HYDROMET FORUM III

IMPROVING WEATHER AND CLIMATE FORECASTS FOR THE REGION

**SAHF program design to meet challenges and harness opportunities in the coming decade**

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**November 15-18, 2021**  
**Annual Event- Virtual**

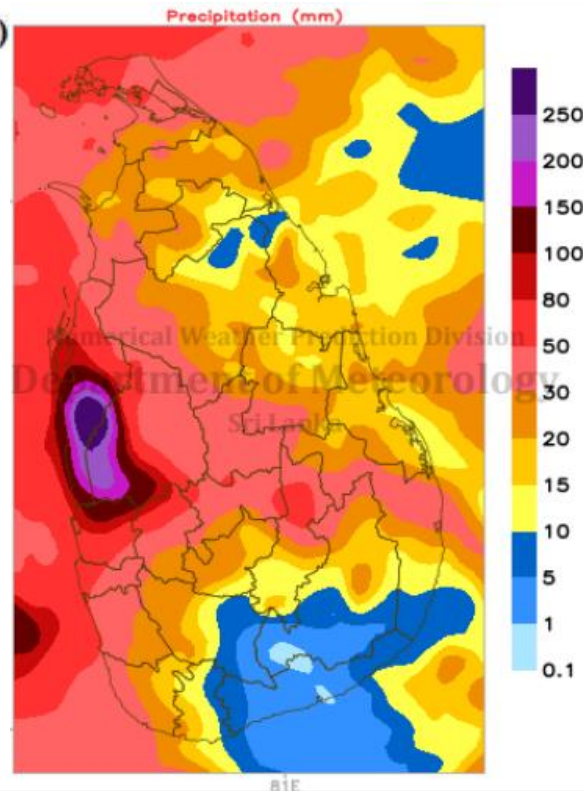
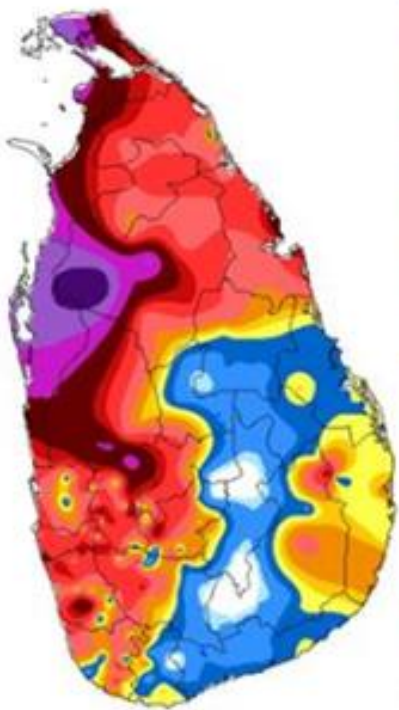
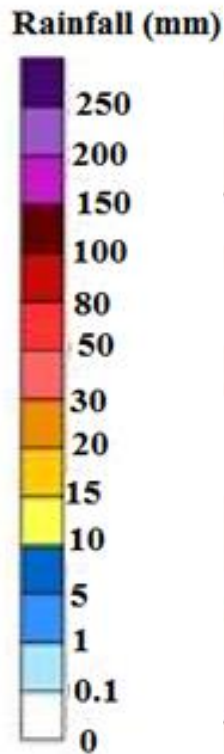
THIS EVENT WAS WELL PREDICTED BY MODELS ,TIMELY WARNINGS ISSUED. HOW EVER AT LEAST 25 PERSONS HAVE DIED AND OVER **222590** PEOPLE IN 17 DISTRICTS HAVE BEEN AFFECTED DUE TO THE ADVERSE WEATHER CONDITIONS IN MANY PARTS OF SRI LANKA (07-09 NOV).

Observation

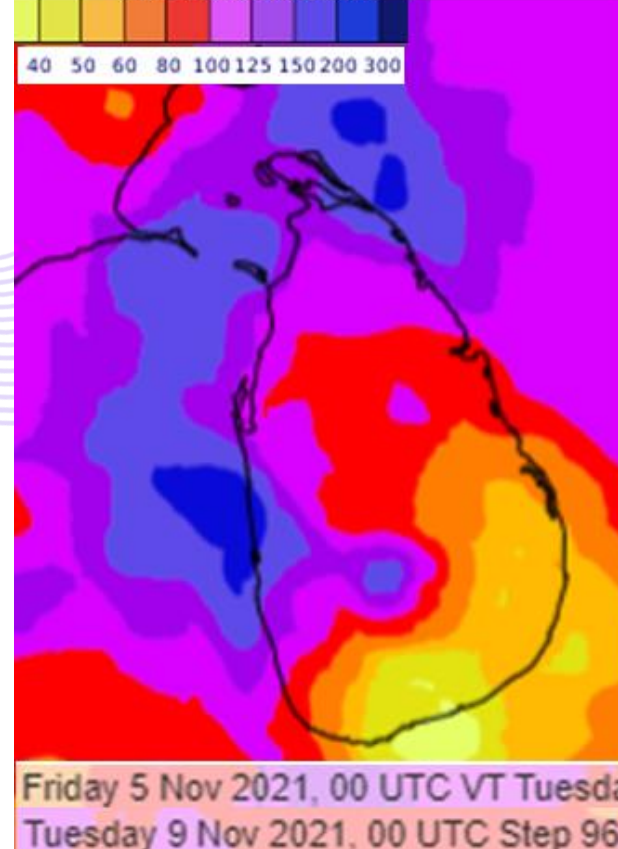
ECMWF (12km) Ensemble Fc on 08<sup>th</sup> 00z valid till 00z 09

ECMWF Point RF Fc 3 days before

Rainfall 24 hours 08-11-2021



ECMWF Point RF 99th %tile issued on 05th Nov valid till 00z 09th Nov



Outlook for Flash Flood Risk issued at 6z 07 Nov by SAFFGS



Friday 5 Nov 2021, 00 UTC VT Tuesday 9 Nov 2021, 00 UTC Step 96

# EXISTING GAPS AND CHALLENGES

- Progress in seamless prediction from short range, sub seasonal, seasonal and decadal at Global scale but not much in operational level in most countries of South Asia
- Wide difference in forecasting capabilities and resources in the region. Most countries in the region have limited access to high resolution NWP products
- Operational weather forecasting based on NWP models has continuously improved over the past few decades but institutional and technical gaps exists in Impact Based Forecasting
- Lack of reliable products to capture the monsoon variability and extreme events
- Lack of observational data especially over Ocean and mountain area's and data sharing issues among the countries
- Lack of capacity on building sector specific Decision Support Systems



# OPPORTUNITIES

As all gaps are common in the South Asia: A Regional mechanism could facilitate Collective efforts to:

- Develop reliable forecast products at regional scale
- Make available high resolution forecast products for South Asia
- Make available reliable forecast products at regional scale to capture seasonal to inter-annual variability of monsoon rainfall and extreme events
- Establish country specific customized trainings
- Promote collaborative research at regional scale - Understanding the monsoon process, cross timescale interactions, tropical - extra tropical interactions, prediction and predictability of the monsoon, and monsoon variability

# PROBABLE SOLUTIONS

- Leverage existing regional mechanism through SAHF to support the countries
- Pool investments to achieve “Economy of Scale” to address all the critical gaps in observation network, NWP and Impact Forecast domains
- Establish regional level common infrastructure with participation of all SAHF Countries
- Establish Regional forecast products development to:
  - address both institutional and technical gaps in Impact Based Forecasting
  - enhance Capacity Building

The logo for the South Asia Hydromet Forum III 2021 features a stylized, flowing ribbon that starts in blue at the top left, curves through green and yellow, and ends in orange at the bottom left. The ribbon is set against a background of light purple wavy lines that sweep across the page. The top right corner of the page is a solid yellow triangle, and the bottom right corner is a solid dark blue triangle.

SOUTH ASIA

**HYDROMET FORUM III**

**2021**

**PROGRAM TO SUPPORT SOUTH ASIA REGIONAL DEVELOPMENT IN  
OPERATIONAL FORECASTING AND SERVICE DELIVERY**

**SAHF Website:** <https://sahf3event.rimes.int/>