

Experimental Climate Monitoring and Prediction

by: Prabodha Agalawatte, Sewwandhi Chandrasekara, Zeenas Yahiya,
Lareef Zubair and Michael Bell (FECT and IRI¹)

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FECT BLOG

Past reports available at
<http://fectsl.blogspot.com/> and

<http://fectsl.wordpress.com/>

FECT WEBSITES

<http://www.climate.lk> and
<http://www.tropicalclimate.org/>

21 August, 2014 PACIFIC SEAS STATE

During July through early-August the observed ENSO conditions were neutral. Most of the ENSO prediction models indicate warming to El Niño levels coming around early northern fall, peaking at weak strength during winter 2014-15 and lasting into the first few months of 2015.

(Text Courtesy IRI)

INDIAN OCEAN STATE

More than 0.5°C above average sea surface temperature was observed around Sri Lanka.

MJO STATE

MJO is at phase 2 and shall enhance rainfall conditions in Sri Lanka

Highlights

Monitoring and Predictions:

Rainfall was observed during the previous week, mostly in the south-western region of the country. Highest rainfall was observed in the Kaluthara district. The sea to the west of Sri Lanka also received high rainfall.

Summary

Monitoring

Weekly Monitoring: The entire country received rainfall during 19th- 22nd August. During this period heavy rainfall was observed in the western, north-western and south-western regions of the country. Up to 100 mm rainfall was observed on the 21st and 22nd in Kaluthara. Rainfall completely stopped in most of the regions in Sri Lanka on the 23rd with rainfall only observed in Colombo and Gampaha districts. On the 24th and 25th up to 50 mm rainfall was observed in the borders of Monaragala and Ampara districts. During 11th – 20th August rainfall in Sri Lanka was mostly concentrated in south-western, north-central regions and also in the region between the central mountain and the eastern coast.

Monthly Monitoring: A less than average rainfall was observed throughout the country during July.

Predictions

14 day prediction: Up to 75 mm rainfall is expected in South-Western Sri Lanka during 27th August- 2nd September. During the week 3rd- 9th September, rainfall shall spread to north-western and north-central regions with south-western region expected to receive up to 75 mm rainfall.

IMD WRF & IRI Model Forecast: According to the IMD WRF model the western half of the country shall receive up to 35 mm rainfall during 29th and 30th of August. IRI models predict upto 50 mm rainfall in south-western coastal region and adjacent sea during 26th- 31st August. Heavy rainfall events are not expected during this period.

Seasonal Prediction As per IRI Multi Model Probability Forecast issued in August for the season September to November 2014, Rainfall shall remain climatological while the temperature shall be above normal with 60- 70% probability.

Inside this Issue

1. Monitoring

- Daily Satellite Derived Rain fall Estimates
- Monthly Rain fall Estimates
- Decadal (10 Day) Satellite Derived Rainfall Estimates
- Weekly Average SST Anomalies

2. Predictions

- NCEP GFS Ensemble 1-14 day predictions
- WRF model forecast Regional Meteorological Center, Chennai, Indian Meteorological Department)
- Weekly precipitation forecast (IRI)
- Seasonal Predictions from IRI

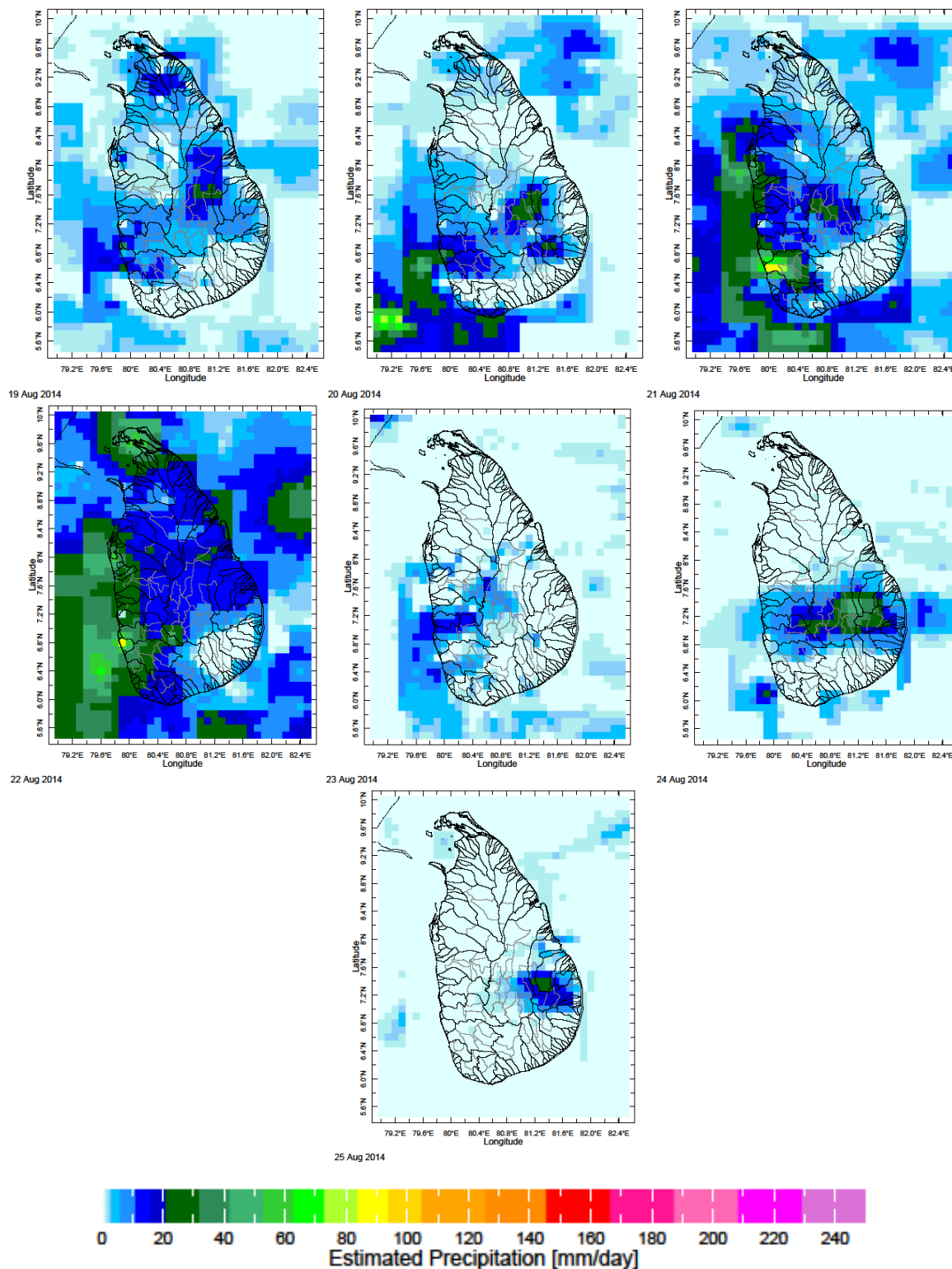
¹ International Research Institute for Climate and Society, Earth Institute at Columbia University, New York.

² These interpretations of hydro-meteorological conditions for the Mahaweli basins are provided for the use of the WMS/MASL.

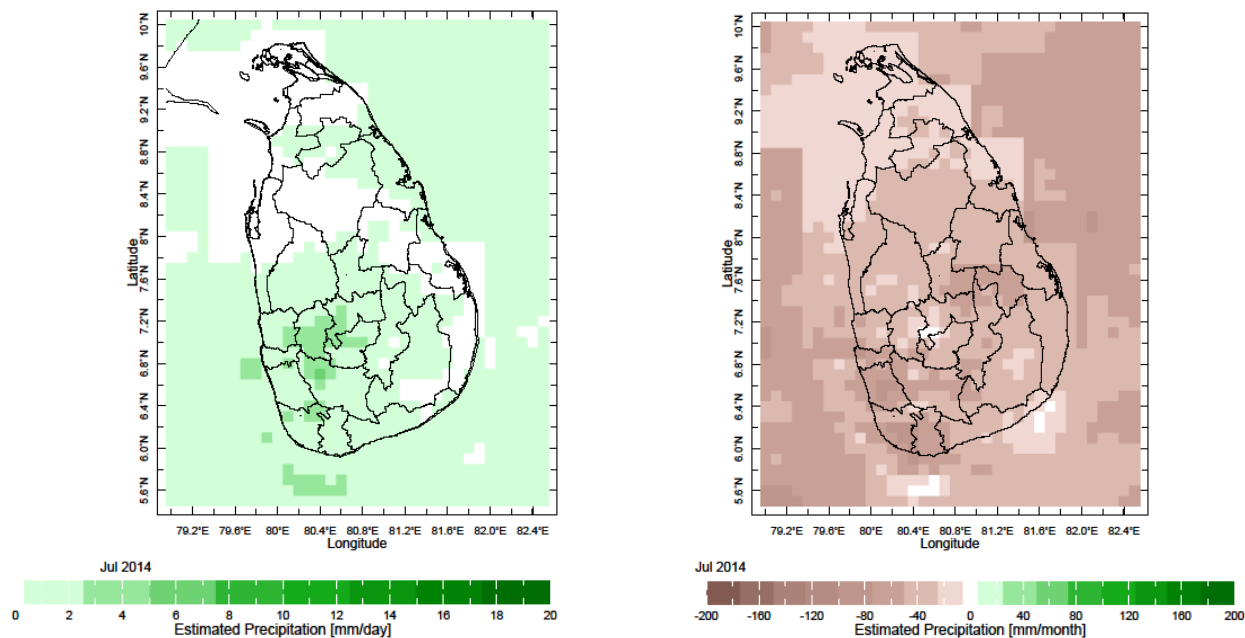
Official hydro-meteorological statements are provided by the Sri Lanka Department of Meteorology and Department of Irrigation.

1. Monitoring

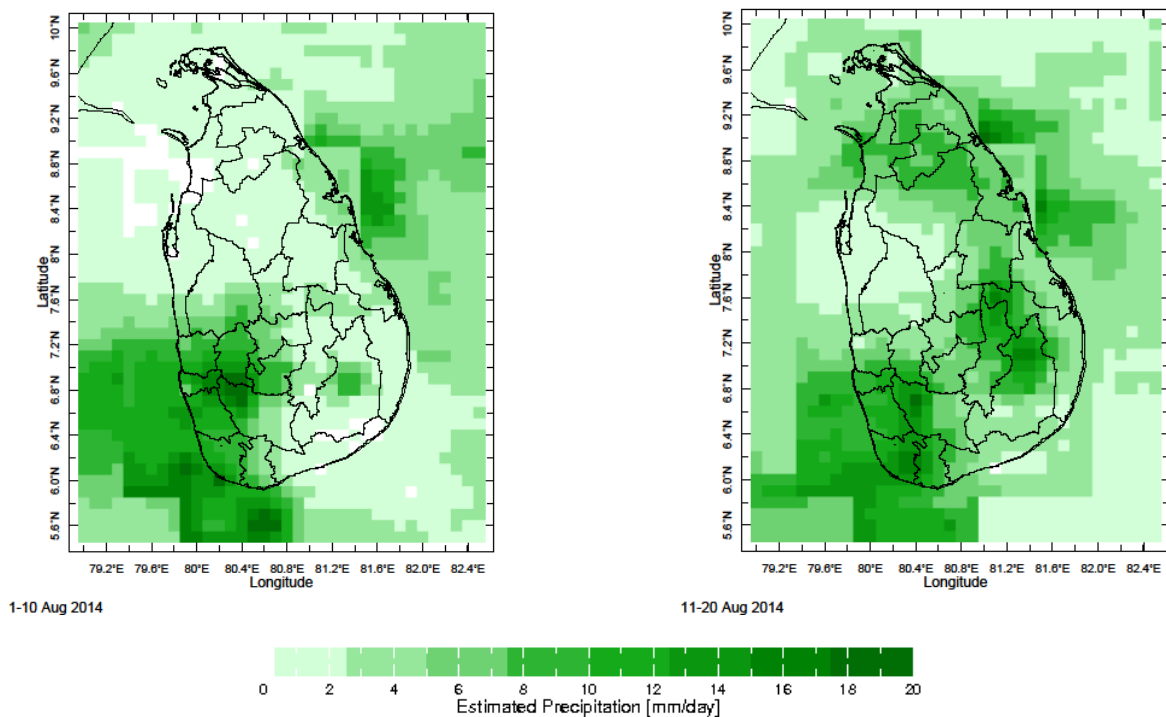
a) Daily Satellite Derived Rainfall Estimate Maps: 19th – 25th August 2014 (Left-Right, Top-Bottom)



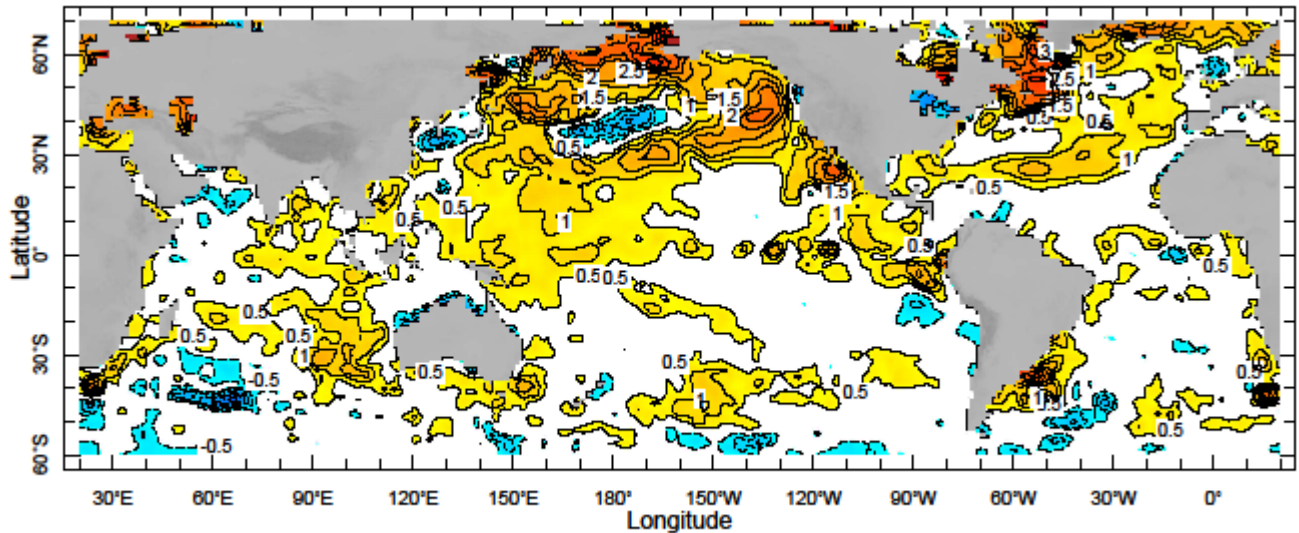
b) Monthly Satellite Derived Rainfall Estimates for July 2014 (Average – Left and Anomaly - Right)



c) Dekadal (10 Day) Satellite Derived Rainfall Estimates (1-10 and 11- 20 Aug, 2014)



d) Weekly Average SST Anomalies



17-23 Aug 2014



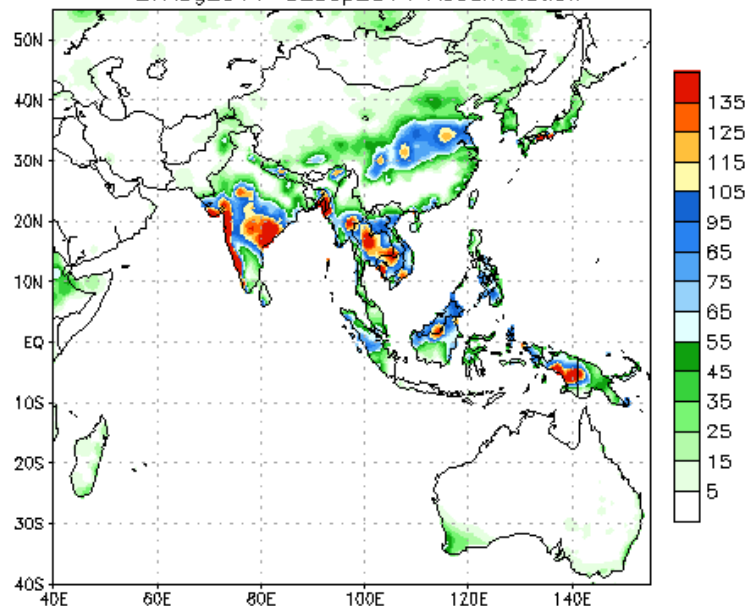
Weekly Average SST Anomalies (°C), 17th – 23rd August, 2014

Data Source: NCEP Environmental monitoring center (Climatology 1971-2000)

2. Predictions

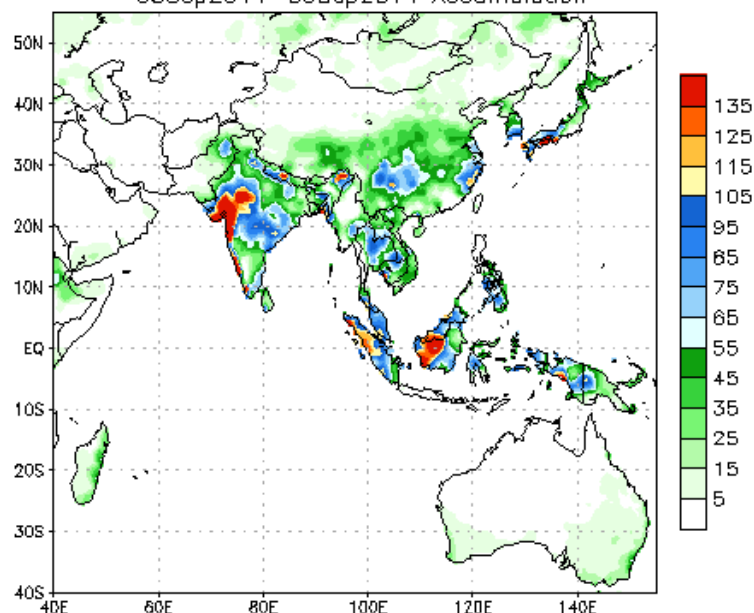
a) NCEP GFS Ensemble 1-14 day predictions, NOAA, Climate Prediction Centre, USA.

NCEP GFS Ensemble Forecast 1-7 Day Precipitation (mm)
from: 27Aug2014
27Aug2014-02Sep2014 Accumulation



Bias correction based on last 30-day forecast error

NCEP GFS Ensemble Forecast 8-14 Day Precipitation (mm)
from: 27Aug2014
03Sep2014-09Sep2014 Accumulation

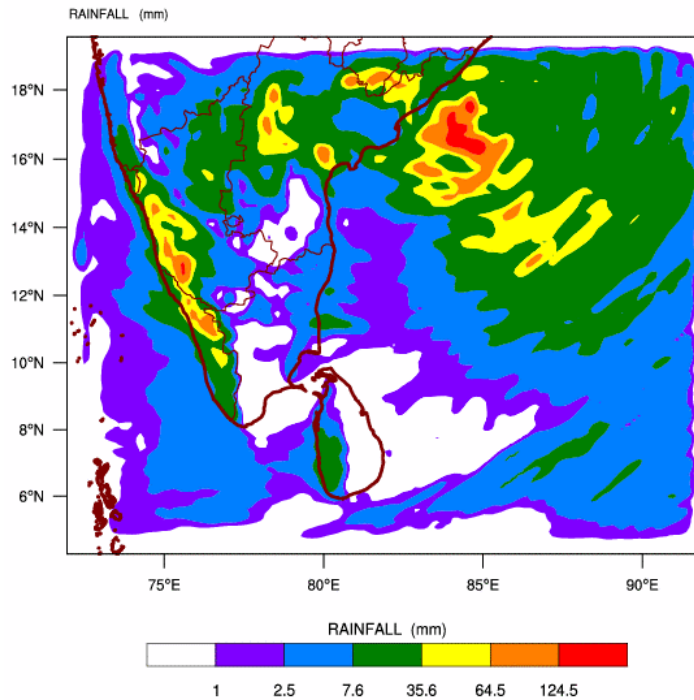


Bias correction based on last 30-day forecast error

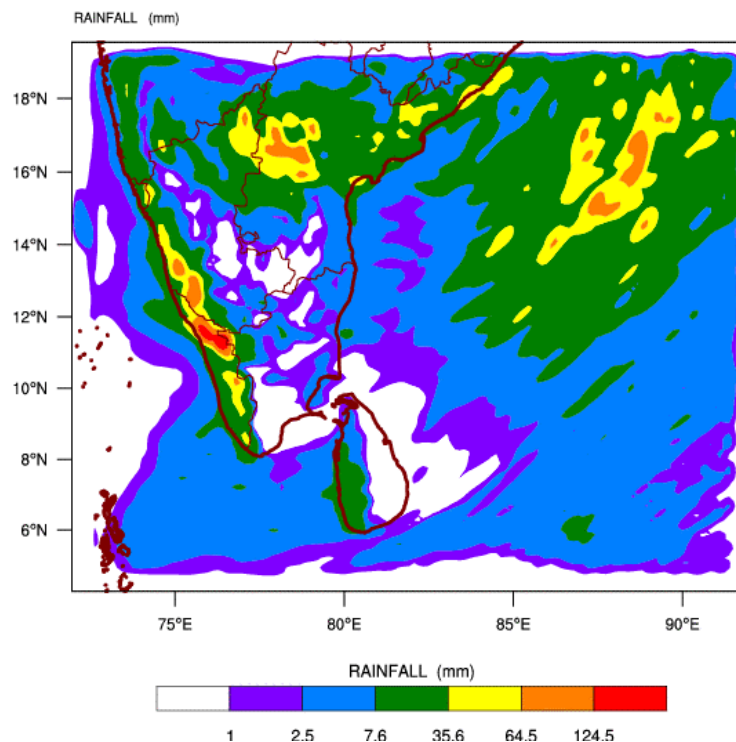
Source – NOAA Climate Prediction Center

b) WRF model forecast from Regional Meteorological Center, Chennai of Indian Meteorological Department

WRF MODEL FORECAST (48 HR.) RAINFALL(mm)\
based on 00 UTC of 27-08-2014 valid for 03 UTC of 29-08-2014

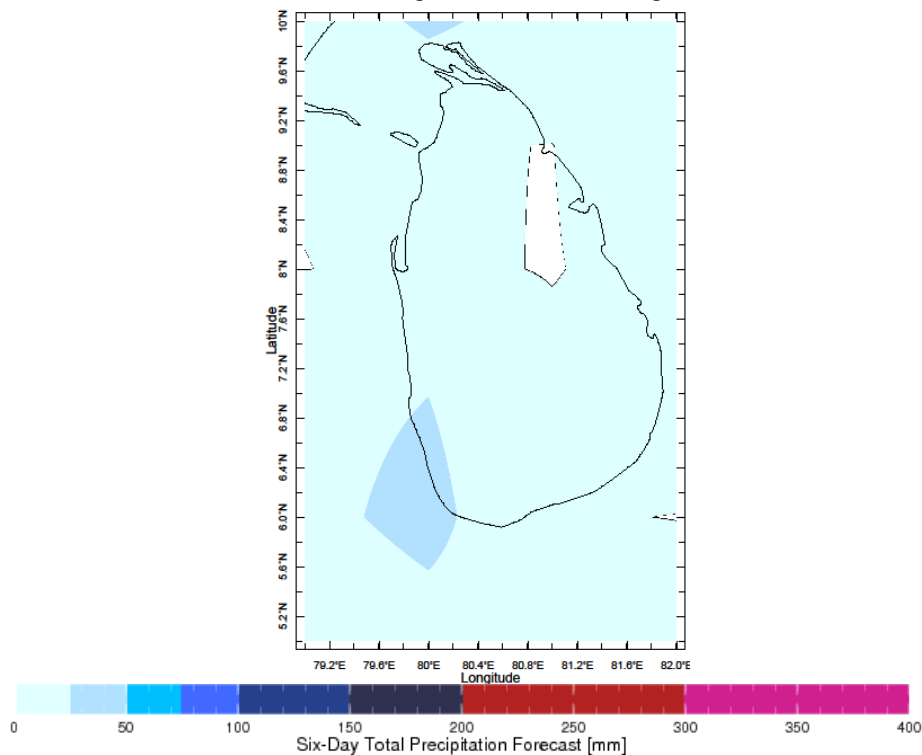


WRF MODEL FORECAST (72 HR.) RAINFALL(mm)\
based on 00 UTC of 27-08-2014 valid for 03 UTC of 30-08-2014

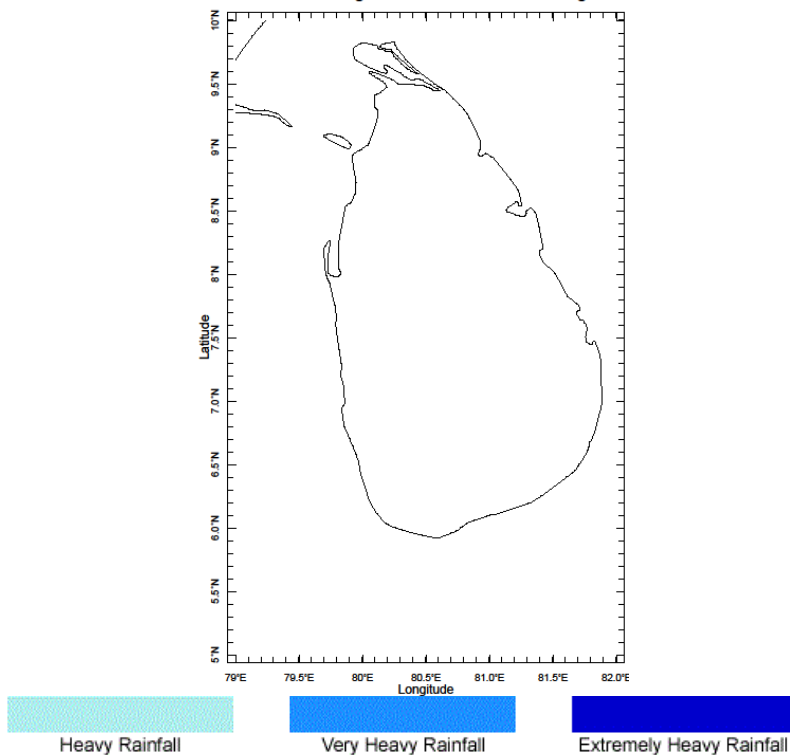


c) Weekly Precipitation Forecast for 26th -31st August 2014 (Precipitation Forecast in Context Map Tool, IRI)

recast for 26-31 Aug 2014 Issued 0000 26 Aug 20

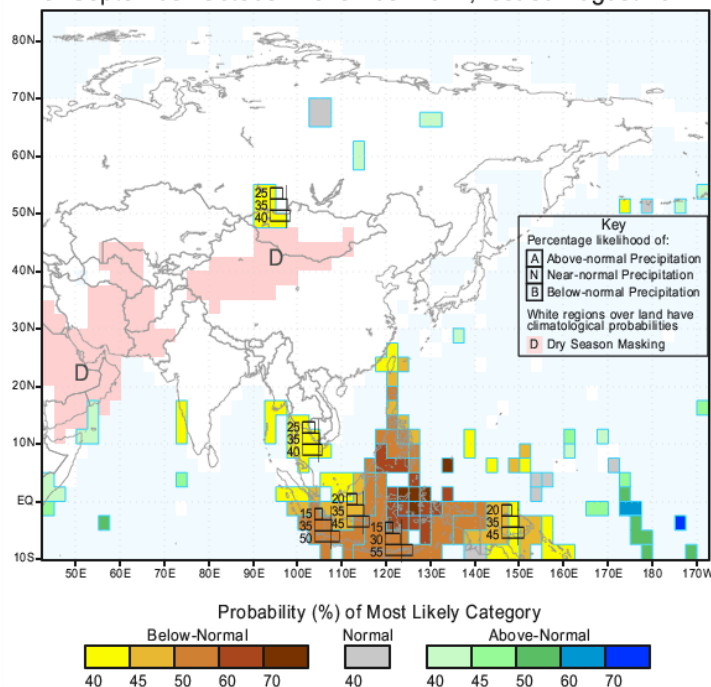


Forecast for 26-31 Aug 2014 Issued 0000 26 Aug 2014



e) Seasonal Rainfall and Temperature Predictions from IRI

IRI Multi-Model Probability Forecast for Precipitation
for September-October-November 2014, Issued August 2014



IRI Multi-Model Probability Forecast for Temperature
for September-October-November 2014, Issued August 2014

