

Experimental Climate Monitoring and Prediction

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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/>

17 July, 2014 PACIFIC SEAS STATE

During June through early-July the observed ENSO conditions remained near the borderline of a weak El Niño condition in the ocean, but the atmosphere so far has shown little involvement. Most of the ENSO prediction models indicate more warming coming in the months ahead, leading to sustained El Niño conditions by the middle or late portion of northern summer.

(Text Courtesy IRI)

INDIAN OCEAN STATE

A 0.5°C positive sea surface anomaly was observed around Sri Lanka

MJO STATE

MJO is at phase 2 in the Indian Ocean and shall affect rainfall in Sri Lanka.

Highlights

Monitoring and Predictions:

Less than average rainfall was observed during July. On the 1st of August very high rainfall was observed in south western region of Sri Lanka.

Summary

Monitoring

Weekly Monitoring: No rainfall was observed on the 29th and 30th. Rainfall was observed only in Kurunegala district on the 31st. Very high rainfall was observed in South-western region on the 1st. Less rainfall was observed during the next three days in the same region.

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

Predictions

14 day prediction: Up to 45 mm rainfall is expected in the south western parts of the country during 13th -19th August.

IMD WRF & IRI Model Forecast: According to the IMD WRF model the entire southern region shall receive rainfall. IRI models predict rainfall up to 50 mm in the south western region.

Seasonal Prediction: As per IRI Multi Model Probability Forecast issued on July 2014; for August 2014 to October 2014, the precipitation shall be climatological while there is a 70% chance that temperature shall be above normal.

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

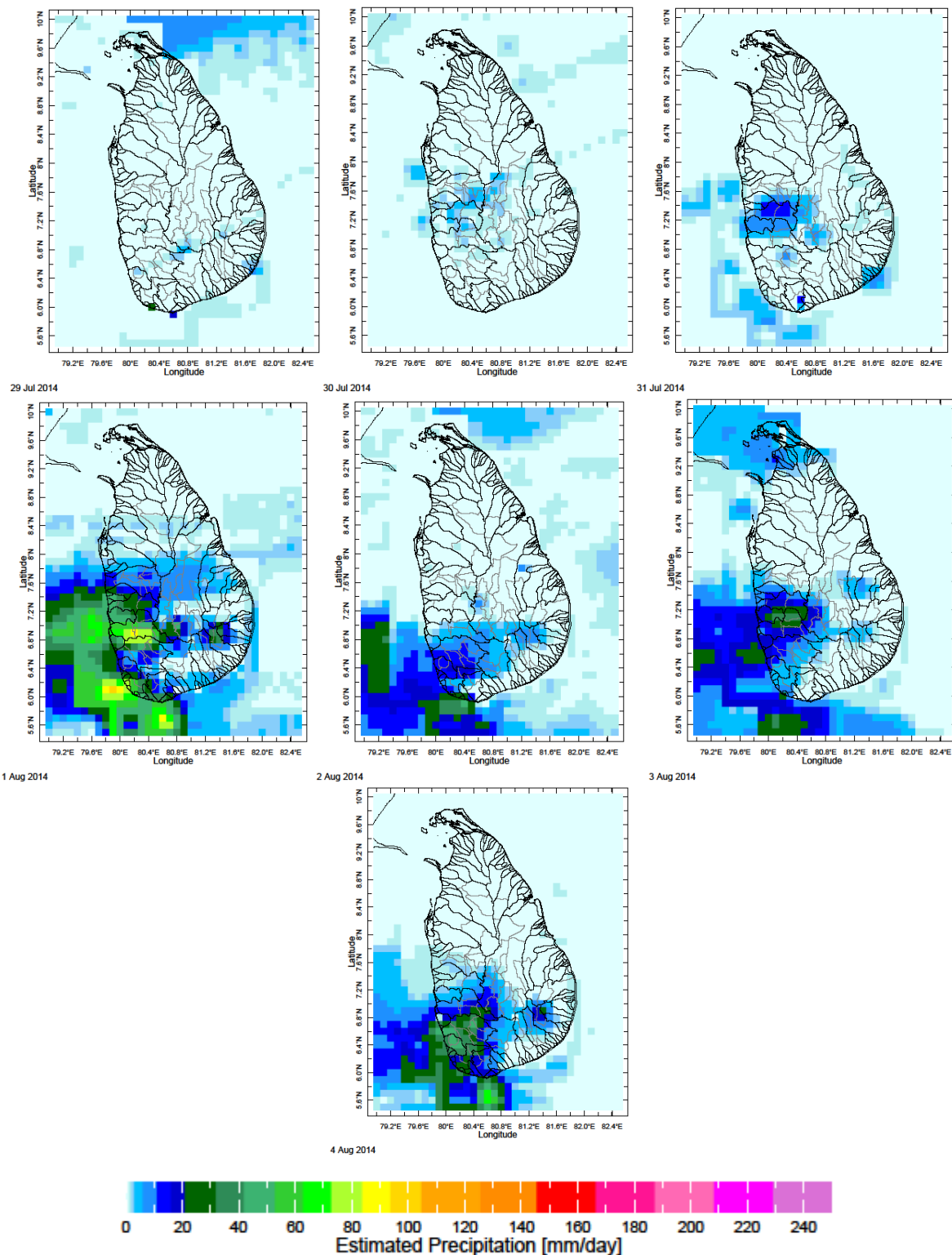
¹ International Research Institute for Climate and Society, Earth Institute at Columbia University, New York.

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

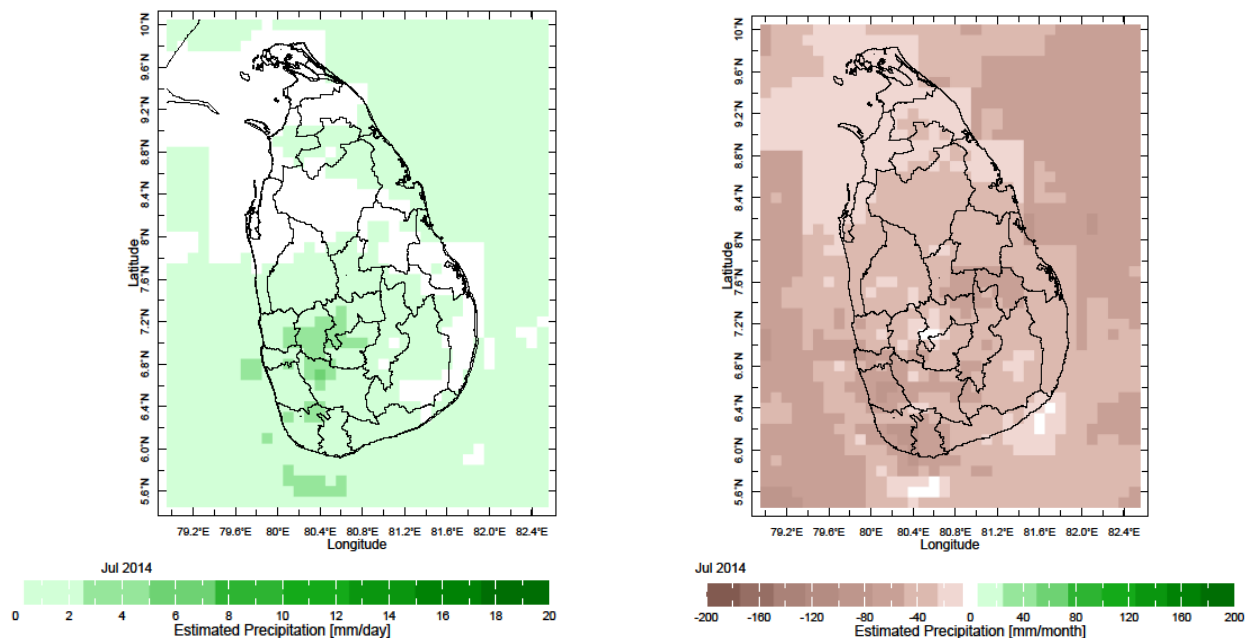
Official hydro-meteorological statements are provided by the Sri Lanka Department of Meteorology and Department of Irrigation.

1. Monitoring

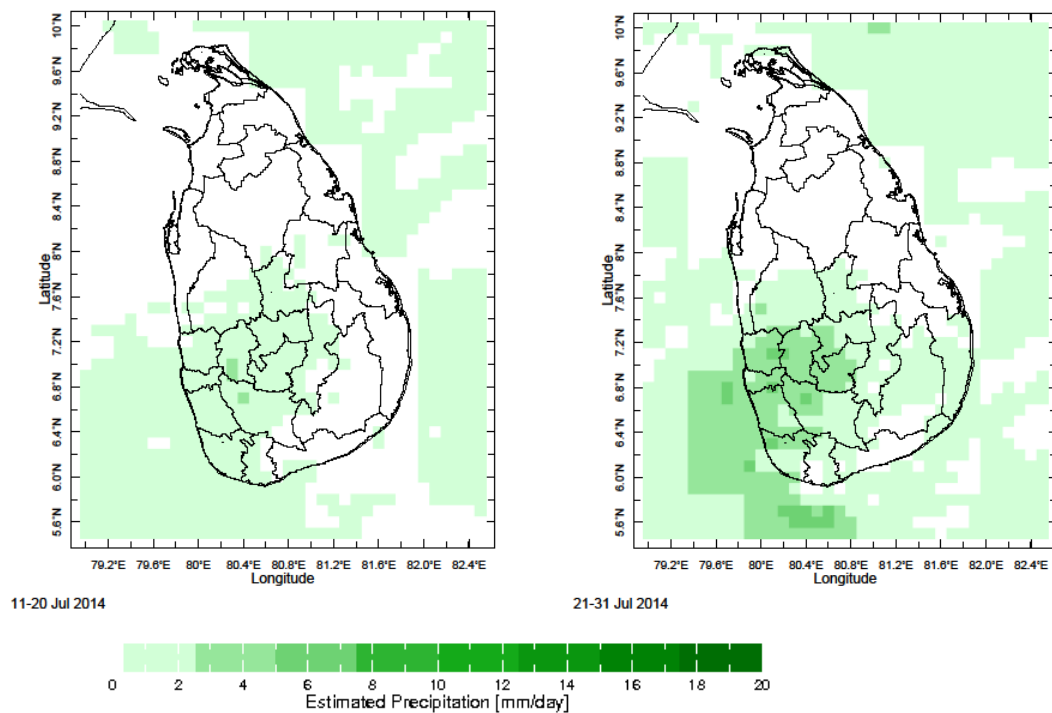
a) Daily Satellite Derived Rainfall Estimate Maps: 29th July – 4th August 2014 (Left-Right, Top-Bottom)



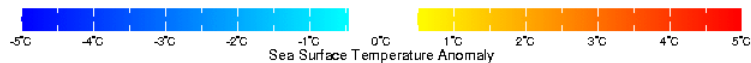
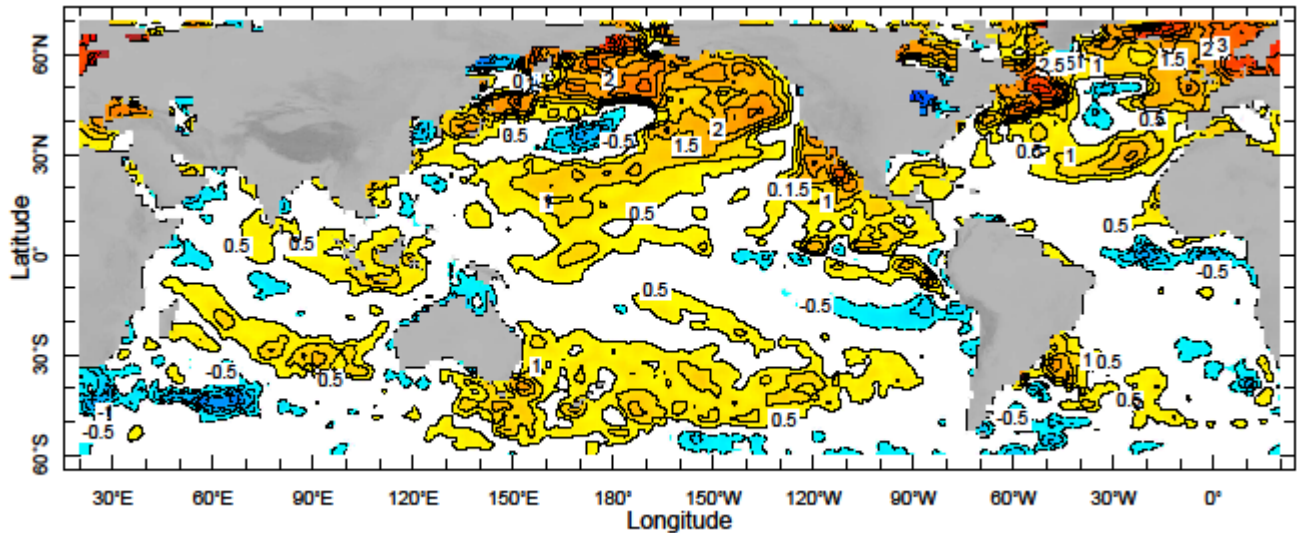
b) Monthly Satellite Derived Rainfall Estimates for July 2014 (Average – Left and Anomaly - Right)



c) Dekadal (10 Day) Satellite Derived Rainfall Estimates (11- 20 & 21- 31 July, 2014)



d) Weekly Average SST Anomalies



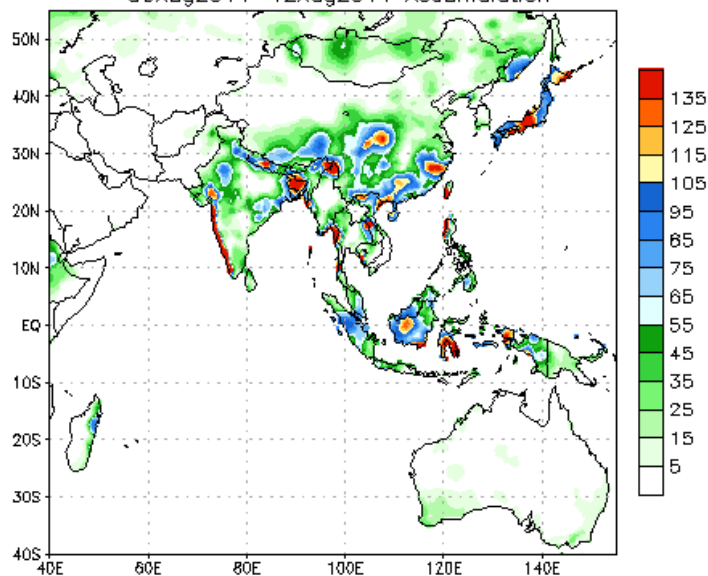
Weekly Average SST Anomalies ($^{\circ}\text{C}$), 27th July – 2nd August, 2014

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

2. Predictions

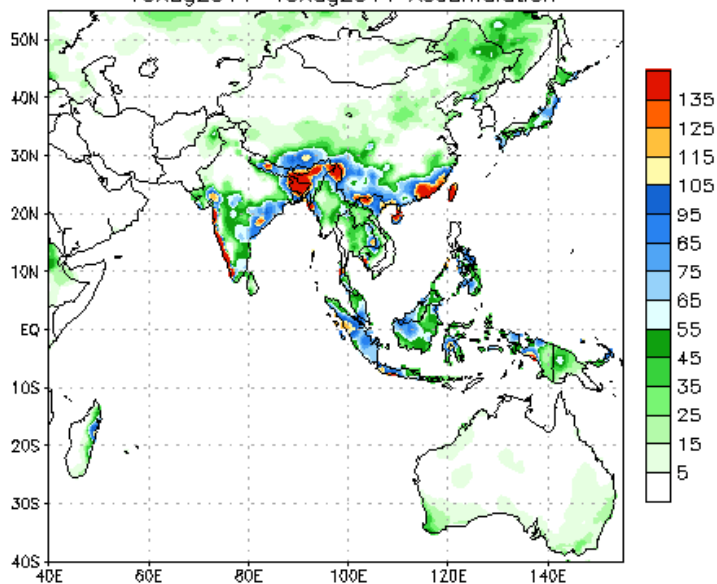
a) NCEP GFS Ensemble 1-14 day predictions, NOAA, Climate Prediction Centre, USA.

NCEP GFS Ensemble Forecast 1-7 Day Precipitation (mm)
from: 06Aug2014
06Aug2014-12Aug2014 Accumulation



Bias correction based on last 30-day forecast error

NCEP GFS Ensemble Forecast 8-14 Day Precipitation (mm)
from: 06Aug2014
13Aug2014-19Aug2014 Accumulation

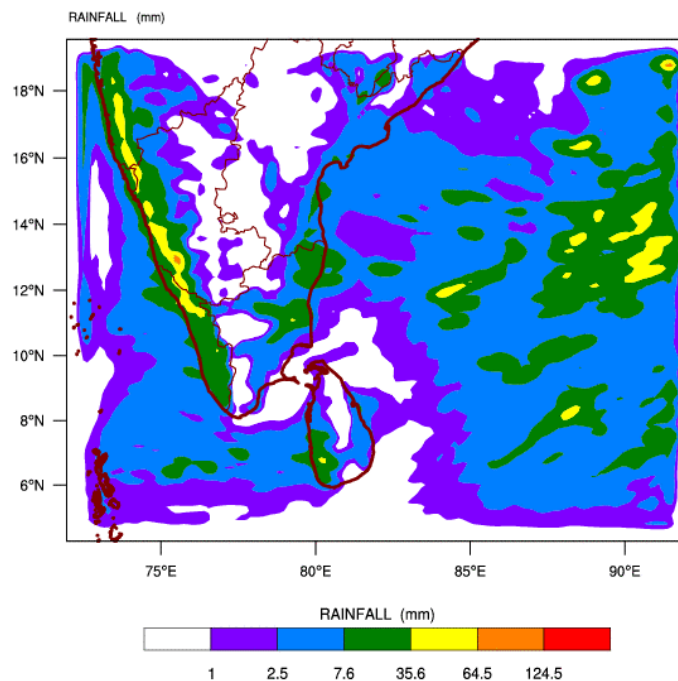


Bias correction based on last 30-day forecast error

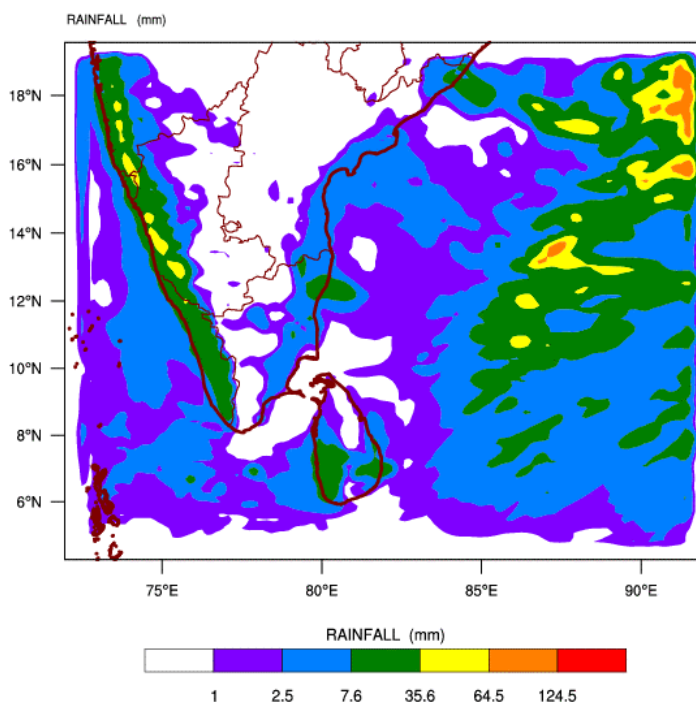
Source – NOAA Climate Prediction Center

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

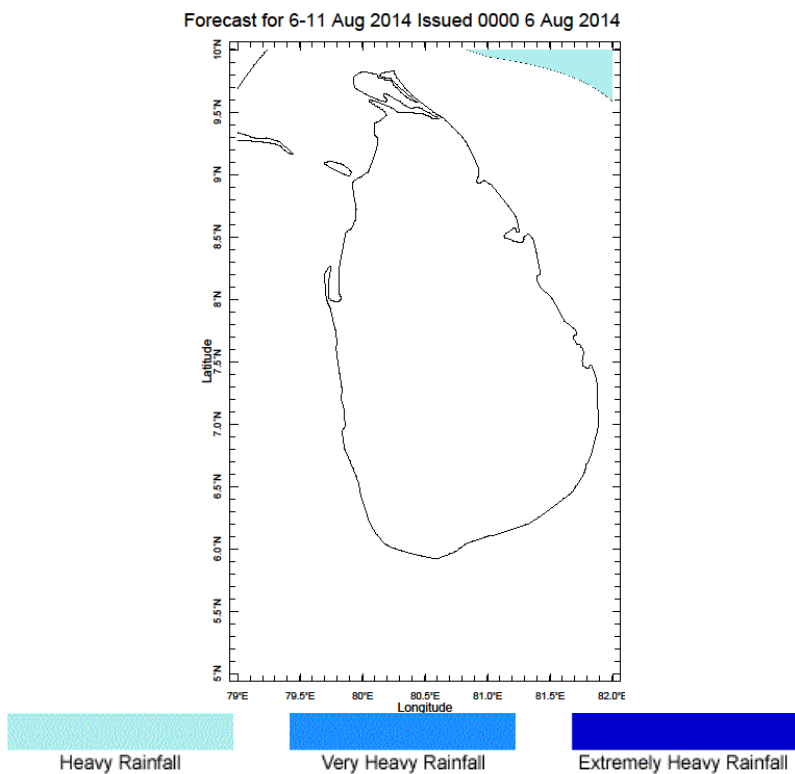
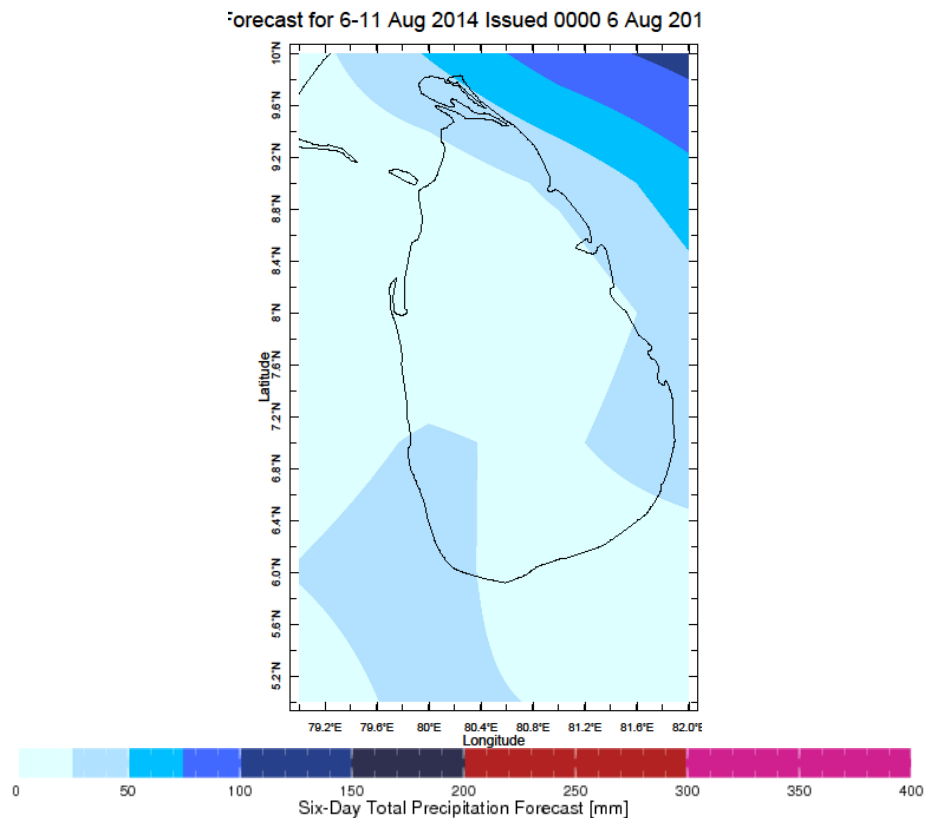
WRF MODEL FORECAST (48 HR.) RAINFALL(mm)
based on 00 UTC of 06-08-2014 valid for 03 UTC of 08-08-2014



WRF MODEL FORECAST (72 HR.) RAINFALL(mm)
based on 00 UTC of 06-08-2014 valid for 03 UTC of 09-08-2014

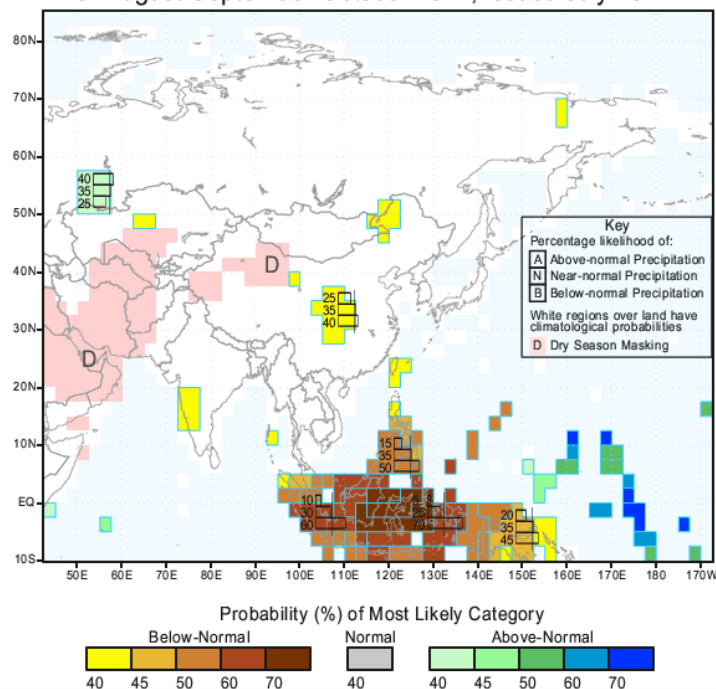


c) Weekly Precipitation Forecast for 6th -11th August 2014 (Precipitation Forecast in Context Map Tool, IRI)



e) Seasonal Rainfall and Temperature Predictions from IRI

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



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

