FECT Foundation for Environment Climate and Technology
c/o, Maintenance Office, Mahaweli Authority, Digana Village, Rajawella, Sri Lanka.
Phone (+94) 81-2376746, 4922992 E-mail climate@sltnet.lk Web Site http://www.climate.lk

# Experimental Climate Monitoring and Prediction

*by:* Prabodha Agalawatte, Sewwandhi Chandrasekara, Zeenas Yahiya, Lareef Zubair and Michael Bell (FECT and IRI[1])

**14 August 2014**

**FECT BLOG**

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

http://fectsl.wordpress.com/

**FECT WEBSITES**

http://www.climate.lkand http://www.tropicalclimate.org/

## 7 August, 2014

### PACIFIC SEAS STATE

During June through 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:**

*Rather heavy rainfall events were observed in south western and north eastern coastal region of the country during the past week. Despite these events severe drought condition still persists in north central region of the country. Higher rainfall is expected in the next week by some climate models while the presence of the MJO in the Indian Ocean shall enhance rainfall in Sri Lanka.*

***Summary***

**Monitoring**

***Weekly Monitoring*:** Light rainfall was observed in south western and eastern regions of the country on the 5th of August. On the 6th no rainfall was observed in any part of the country. Thereafter heavy rainfall up to (100 mm) was observed in North eastern coastal regions and south western region on the 7th and 8th. Rainfall diminished on the 9th of August and on the next day once again high rainfall was observed in north eastern coastal area and the adjacent sea. Colombo and Badulla districts received rainfall up to 20 mm on the 11th.

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

**Predictions**

***14 day prediction:*** Up to 55 mm rainfall is expected in the entire country during 13th- 19th of August and during 20th -26th rainfall shall decrease with only up to 25 mm rainfall expected in south western Sri Lanka.

***IMD WRF &IRI Model Forecast:*** According to the IMD WRF model heavy rainfall (65 mm) is expected in the south western region of the country during 15th and 16th of August. Apart from this eastern region of the country shall receive rainfall too. Based on IRI prediction south western region of the country shall receive total precipitation up to 200 mm during 13th- 18th of August. Up to 150 mm of rainfall is expected in north eastern coastal region and up to 50 mm rainfall in the north and north central region during this period. Unusually heavy rainfall events are not expected in any part of the country during these six days.

***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***



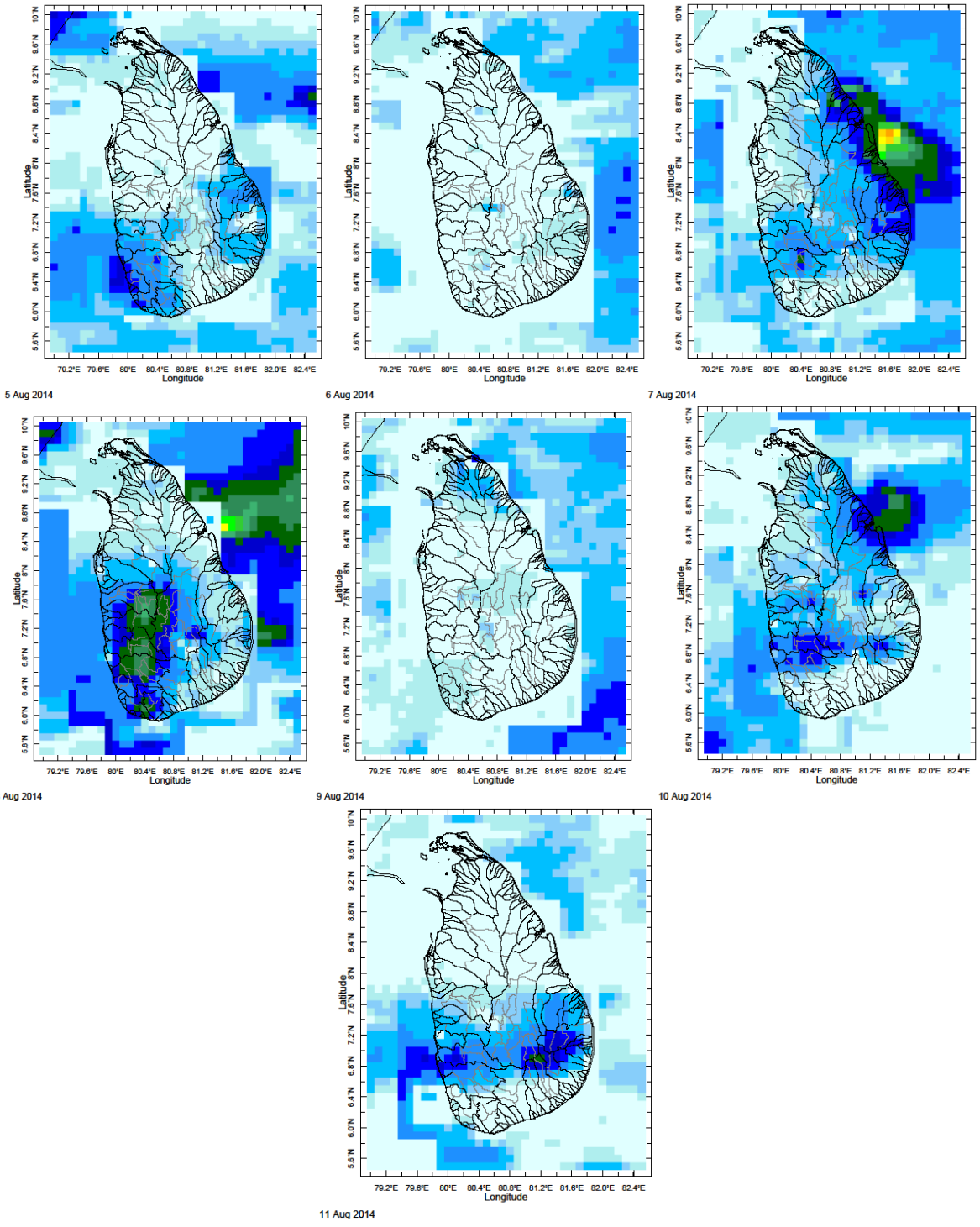
[1] International Research Institute for Climate and Society, Earth Institute at Columbia University, New York.

[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.

FECT Foundation for Environment Climate and Technology
c/o, Maintenance Office, Mahaweli Authority, Digana Village, Rajawella, Sri Lanka.
Phone (+94) 81-2376746, 4922992 E-mail climate@sltnet.lk Web Site http://www.climate.lk

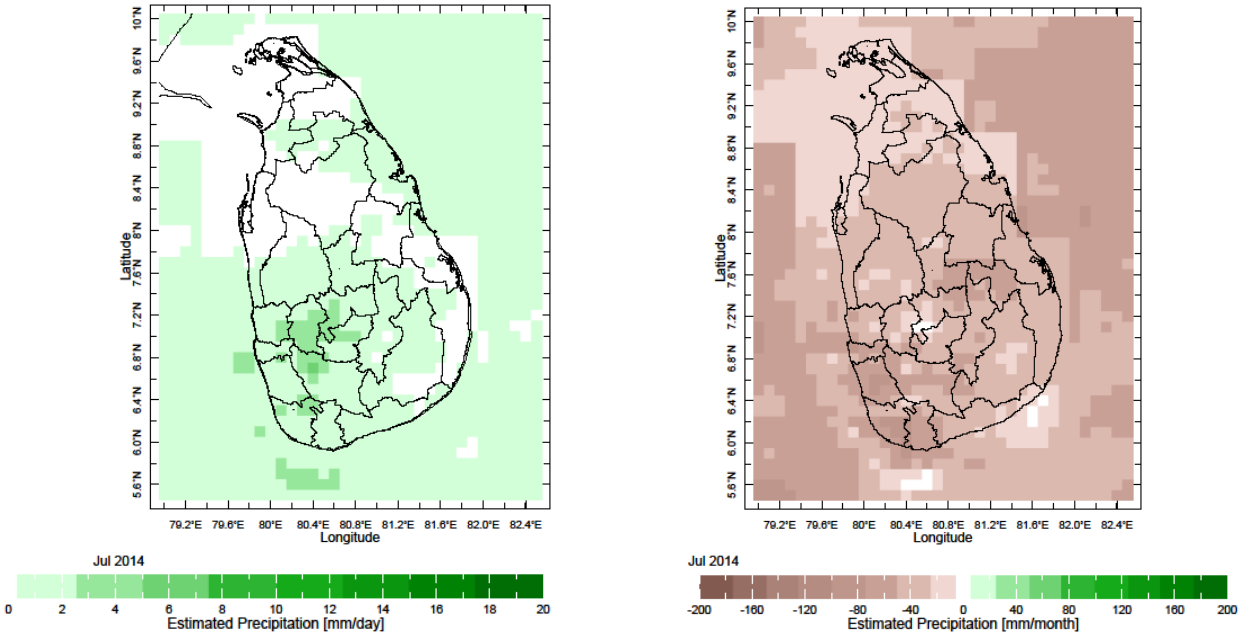
## 1. Monitoring

### a) *Daily Satellite Derived Rainfall Estimate* Maps: 5th – 11th August *2014 (Left-Right, Top-Bottom)*

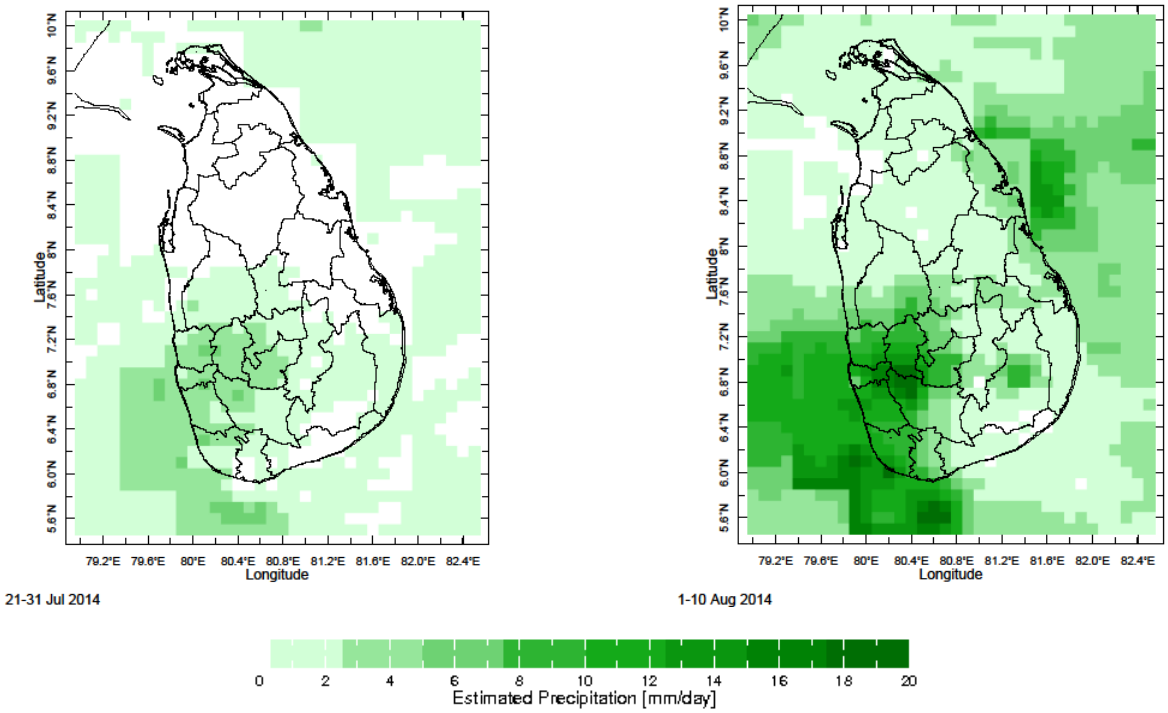


FECT Foundation for Environment Climate and Technology
c/o, Maintenance Office, Mahaweli Authority, Digana Village, Rajawella, Sri Lanka.
Phone (+94) 81-2376746, 4922992 E-mail climate@sltnet.lk Web Site http://www.climate.lk

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

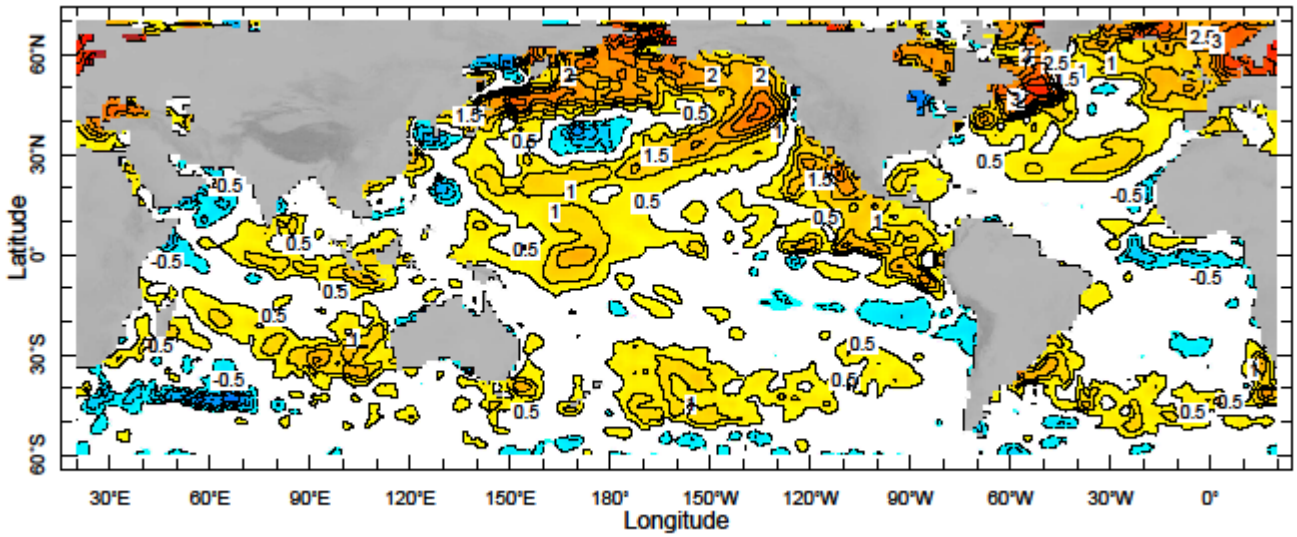



***c) Dekadal (10 Day) Satellite Derived Rainfall Estimates (21- 31 July and 1-10 Aug, 2014)***



FECT Foundation for Environment Climate and Technology
c/o, Maintenance Office, Mahaweli Authority, Digana Village, Rajawella, Sri Lanka.
Phone (+94) 81-2376746, 4922992 E-mail climate@sltnet.lk Web Site http://www.climate.lk

### *d) Weekly Average SST Anomalies*




3-9 Aug 2014

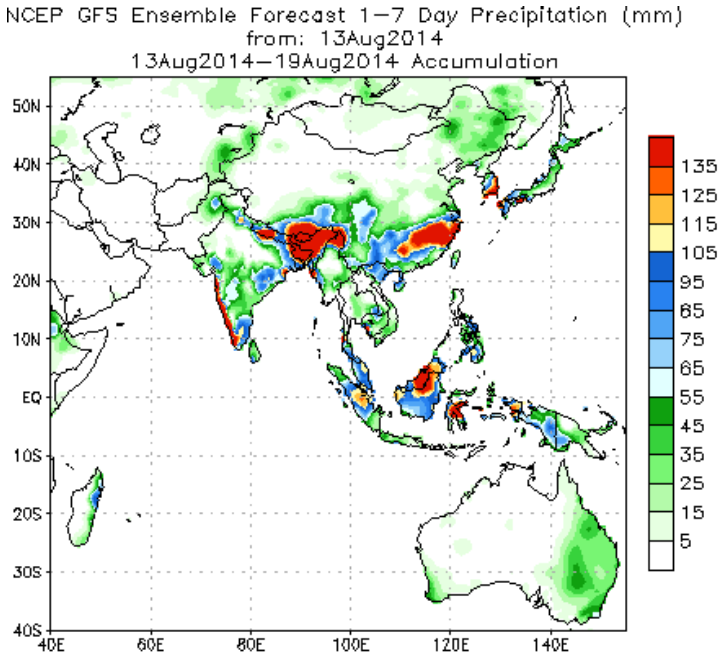

**Weekly Average SST Anomalies ($^0$C), 3$^{rd}$ – 9$^{th}$ August, 2014**

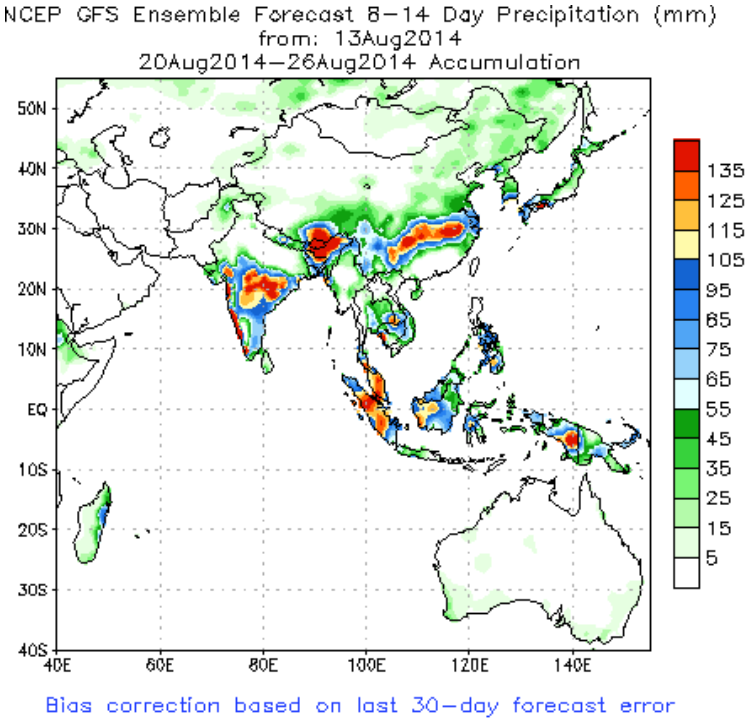
**Data Source: NCEP Environmental monitoring center (Climatology 1971-2000)**

FECT Foundation for Environment Climate and Technology
c/o, Maintenance Office, Mahaweli Authority, Digana Village, Rajawella, Sri Lanka.
Phone (+94) 81-2376746, 4922992 E-mail climate@sltnet.lk Web Site http://www.climate.lk

## 2. Predictions

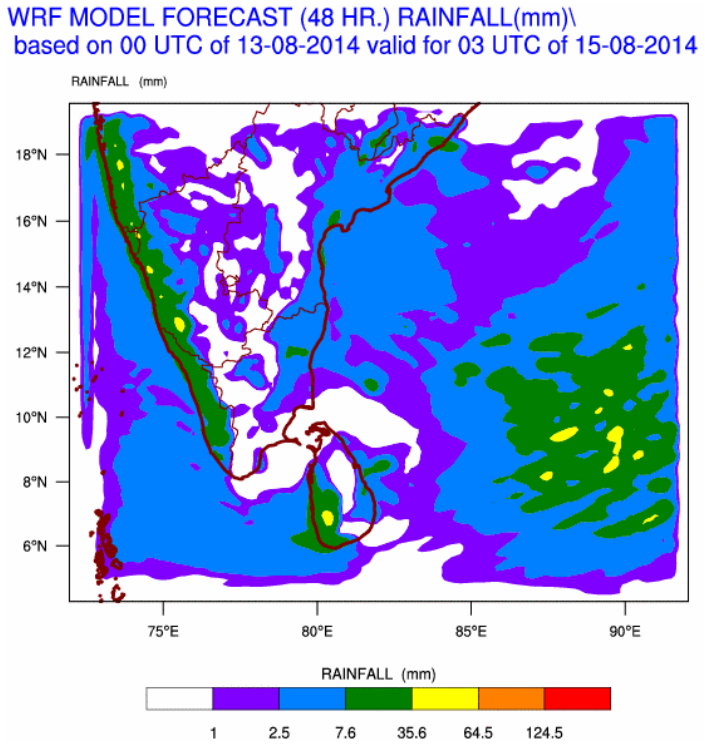
### *a) NCEP GFS Ensemble 1-14 day predictions, NOAA, Climate Prediction Centre, USA.*

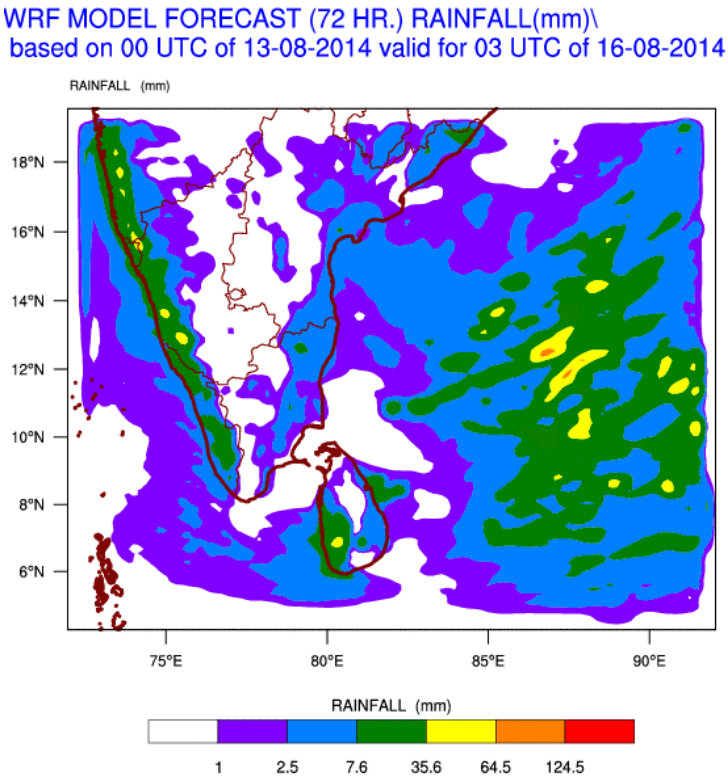



**Source – NOAA Climate Prediction Center**

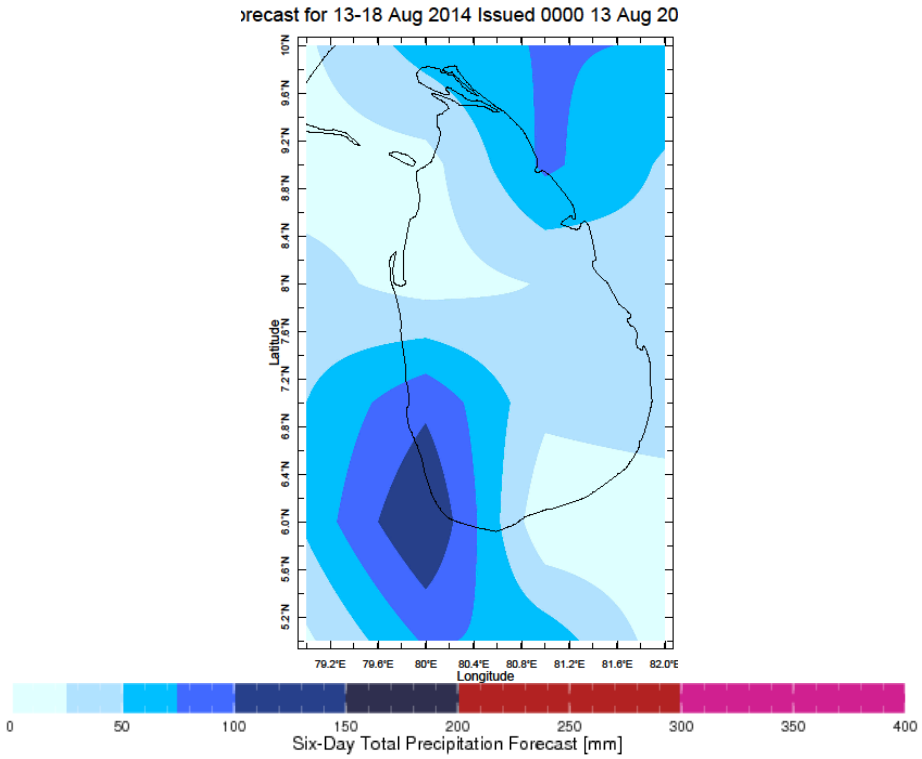
***b) WRF model forecast from*** **Regional Meteorological Center, Chennai of Indian Meteorological Department**

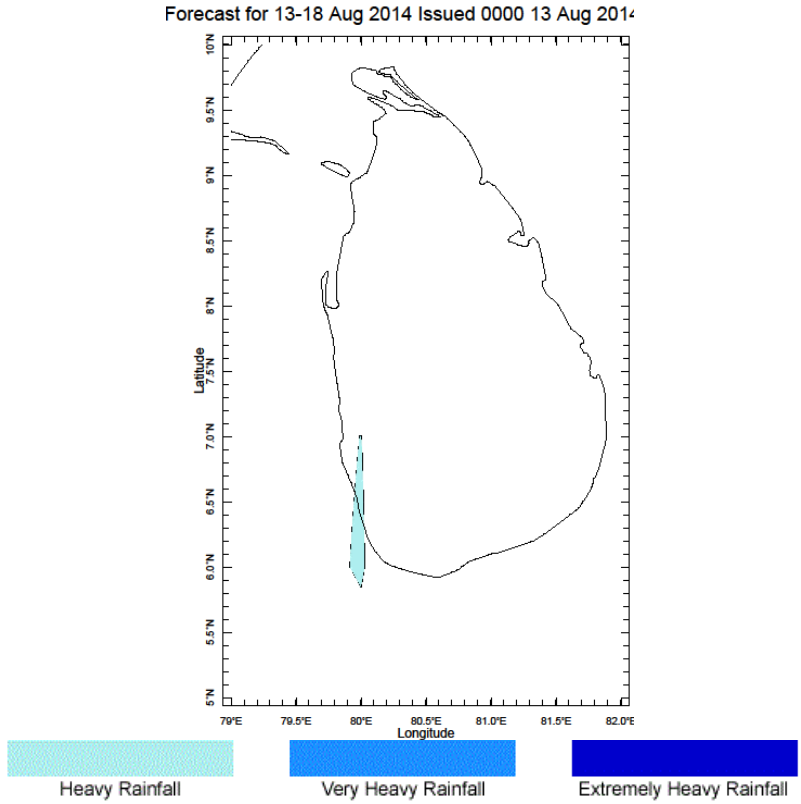


FECT Foundation for Environment Climate and Technology
c/o, Maintenance Office, Mahaweli Authority, Digana Village, Rajawella, Sri Lanka.
Phone (+94) 81-2376746, 4922992 E-mail climate@sltnet.lk Web Site http://www.climate.lk

***c) Weekly Precipitation Forecast for 13th -18th August 2014 (Precipitation Forecast in Context Map Tool, IRI)***



FECT Foundation for Environment Climate and Technology
c/o, Maintenance Office, Mahaweli Authority,
Digana Village, Rajawella, Sri Lanka.
Phone (+94) 81-2376746, 4922992 E-mail climate@sltnet.lk Web Site http://www.climate.lk

***e) Seasonal Rainfall and Temperature Predictions from IRI***