FECT Foundation for Environment Climate and Technology
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Experimental Climate Monitoring and Prediction

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

18 September 2014

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4 September, 2014

PACIFIC SEAS STATE

During July through 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

Around 0.5^0 C above average sea surface temperature was observed around Sri Lanka.

MJO STATE

MJO is weak and therefore shall not influence the rainfall in Sri Lanka.

Highlights

Monitoring and Predictions:

Southern and eastern regions of the country received rainfall during the past week. But no rainfall was observed in the north central region. High rainfall was observed in the south western region as expected while rainfall is expected to continue in this region during the next week. The sea surface temperature around Sri Lanka has reduced.

Summary

Monitoring

***Weekly Monitoring*:** On the 9th of September rainfall up to 20 mm was observed in Ratnapura and surrounding regions. The rainfall was intensified on the 10th with Ratnapura receiving rainfall up to 40 mm and Batticoloa receiving rainfall up to 30 mm. On the next day up to 30 mm rainfall was observed in Trincomalee and nearby sea as well as in the Yala national park. The southern half of Sri Lanka received light rainfall on the 12th with highest rainfall observed in the Yala national park. The entire southwestern region of Sri Lanka received rainfall up to 40 mm on the 13th which continued on the 14th. Apart from this region the entire country except north central region received rainfall on the 14th. Gampaha, Kegalle and Kandy districts received light rainfall on the 15th.

***Monthly Monitoring*:** An above average rainfall was observed throughout the country with higher precipitation observed in the south-western regions of Sri Lanka during August. Highest rainfall during this month was observed in Ratnapura district.

Predictions

14 day prediction: Up to 45 mm rainfall is expected in South-Western and southern Sri Lanka during the fortnight from 17th – 30th September.

IMD WRF &IRI Model Forecast: According to the IMD WRF model western and south western regions of the country shall receive up to 35 mm rainfall on the 19th and 20th. NOAA models predict up to 50 mm total rainfall for 6 days from 17th- 22nd in south western region.

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] 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.

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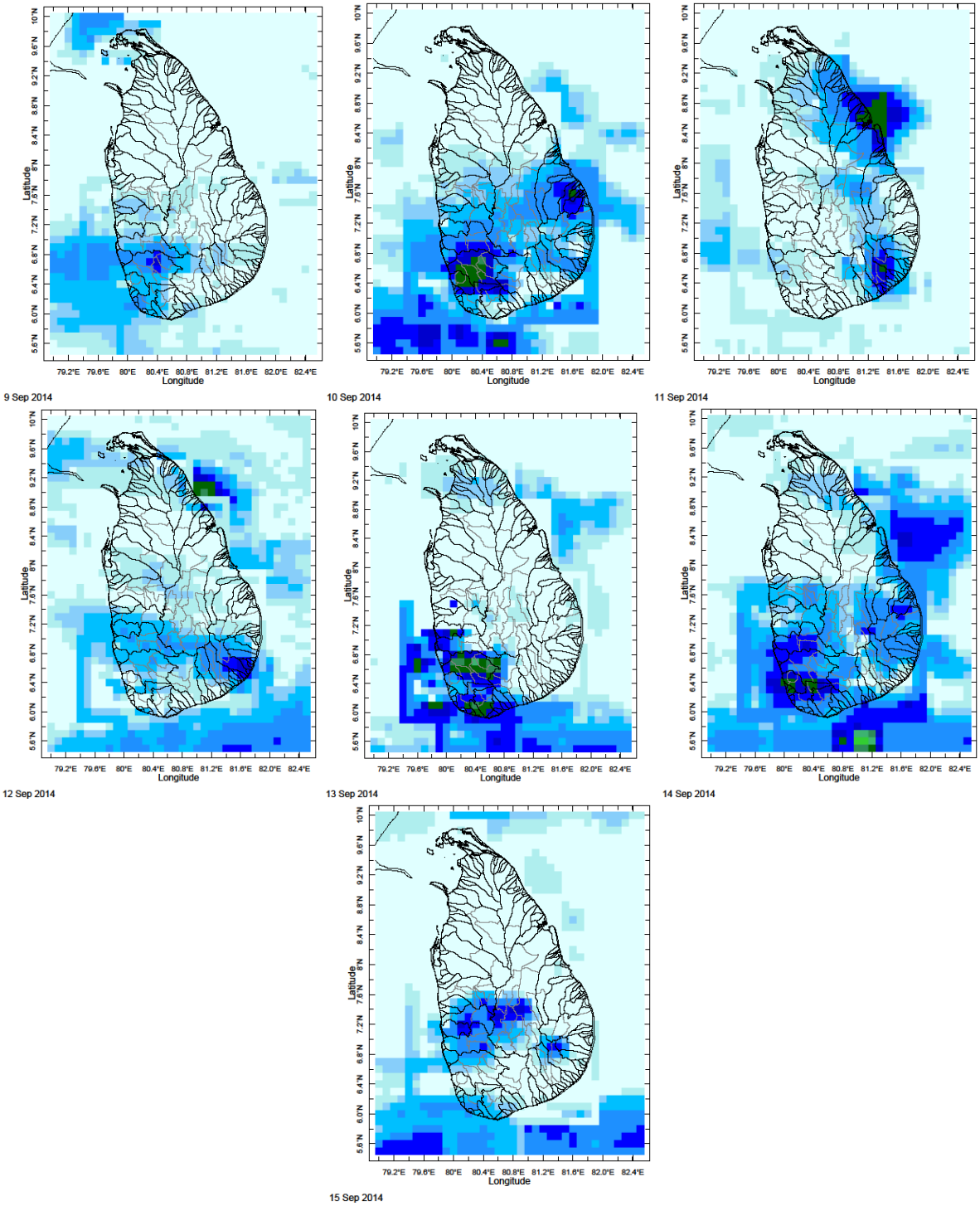
1. Monitoring

a) Daily Satellite Derived Rainfall Estimate Maps: 9nd – 15th September *2014 (Left-Right, Top-Bottom)*



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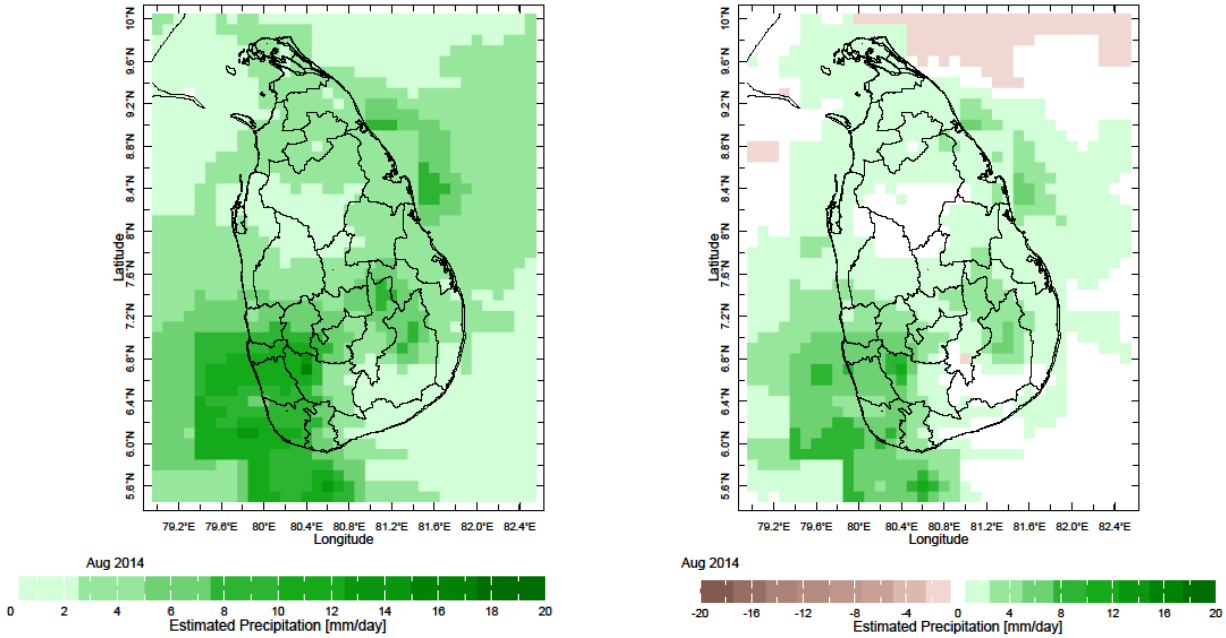
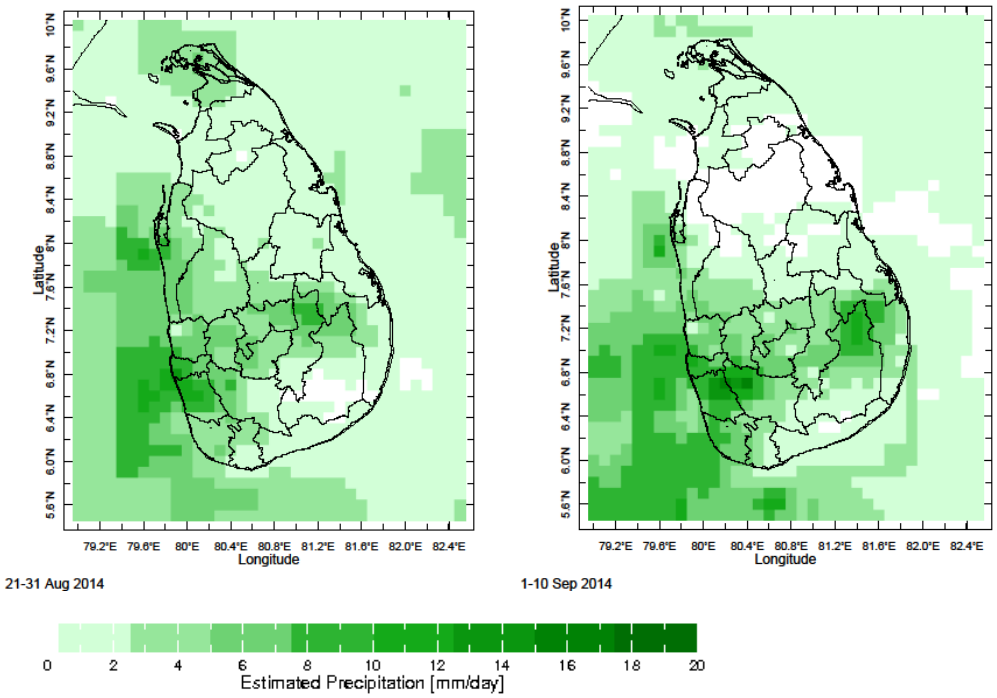
b) Monthly Satellite Derived Rainfall Estimates for August 2014 (Average – Left and Anomaly - Right)



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



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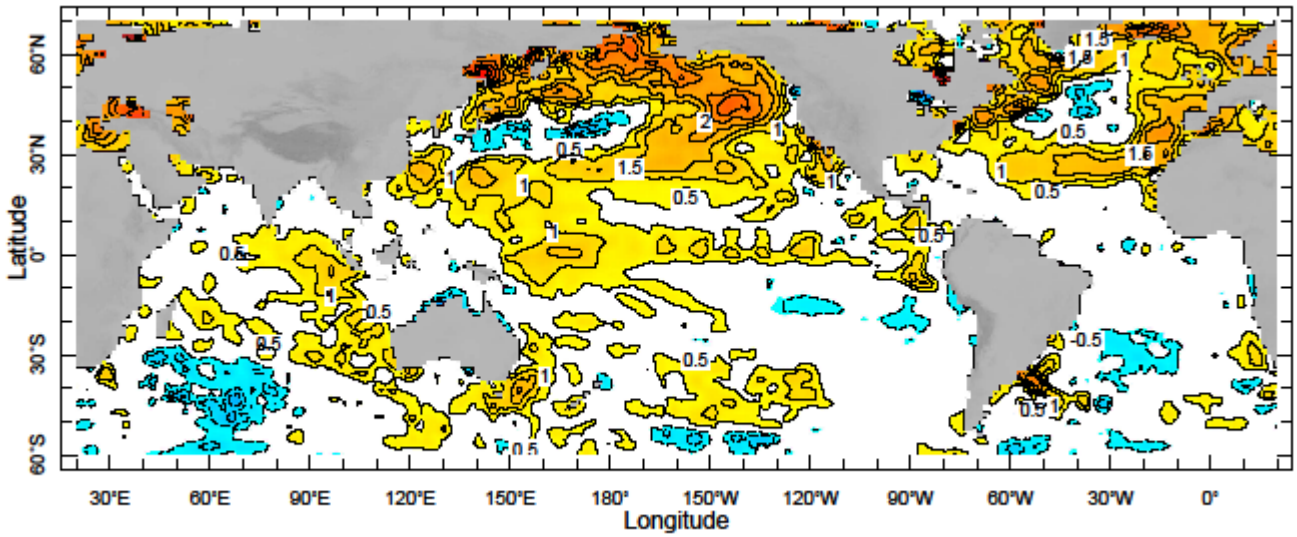
d) Weekly Average SST Anomalies



Weekly Average SST Anomalies (^{0}C), 7th – 13th September, 2014

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

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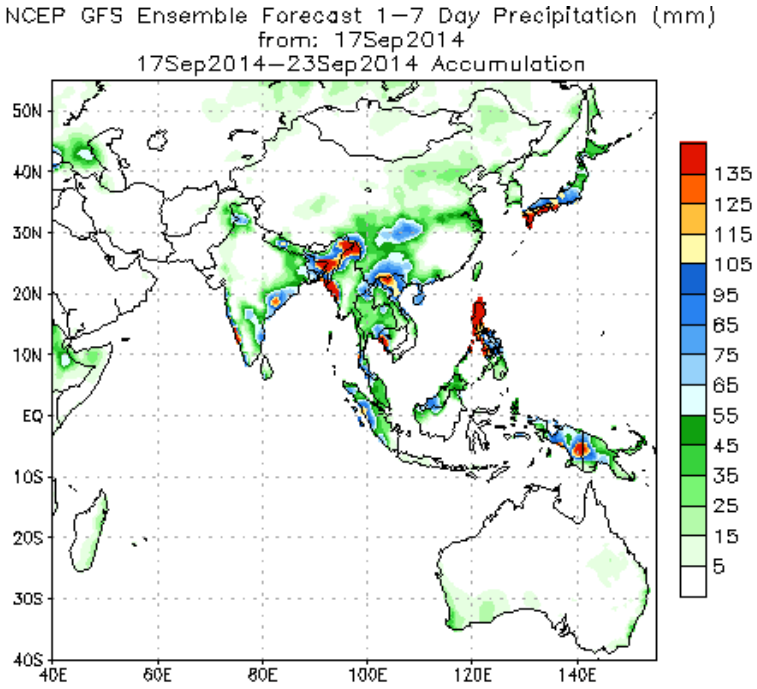
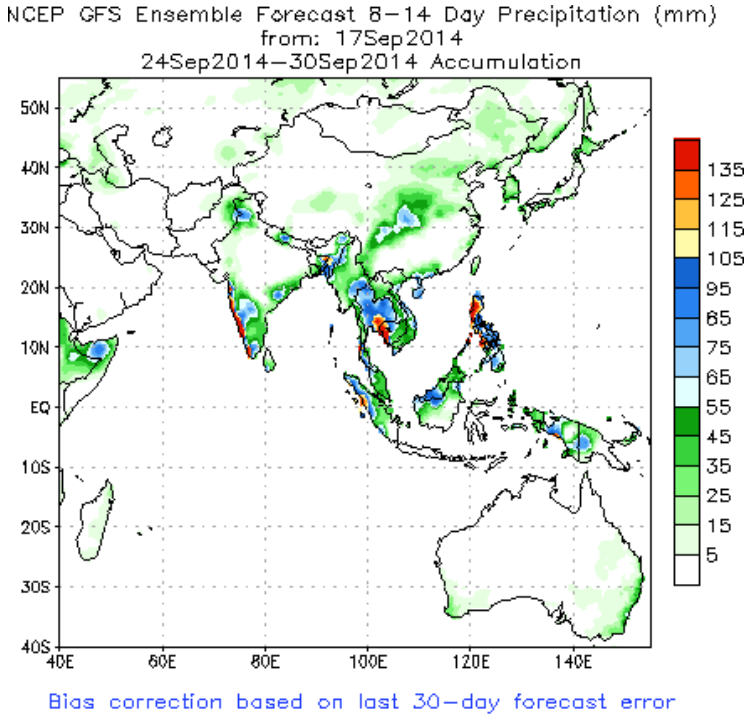
2. Predictions

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





Source – NOAA Climate Prediction Center

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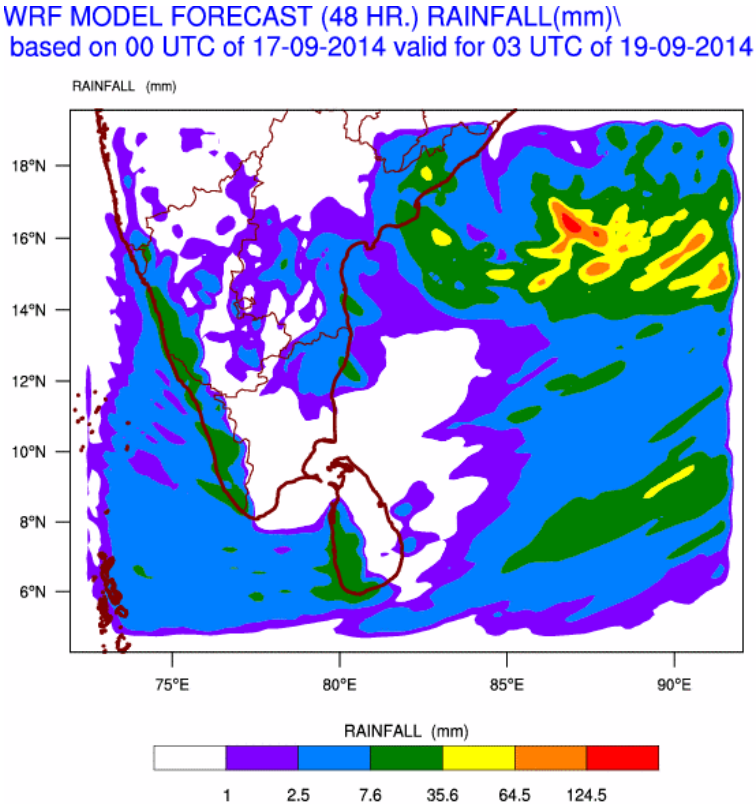
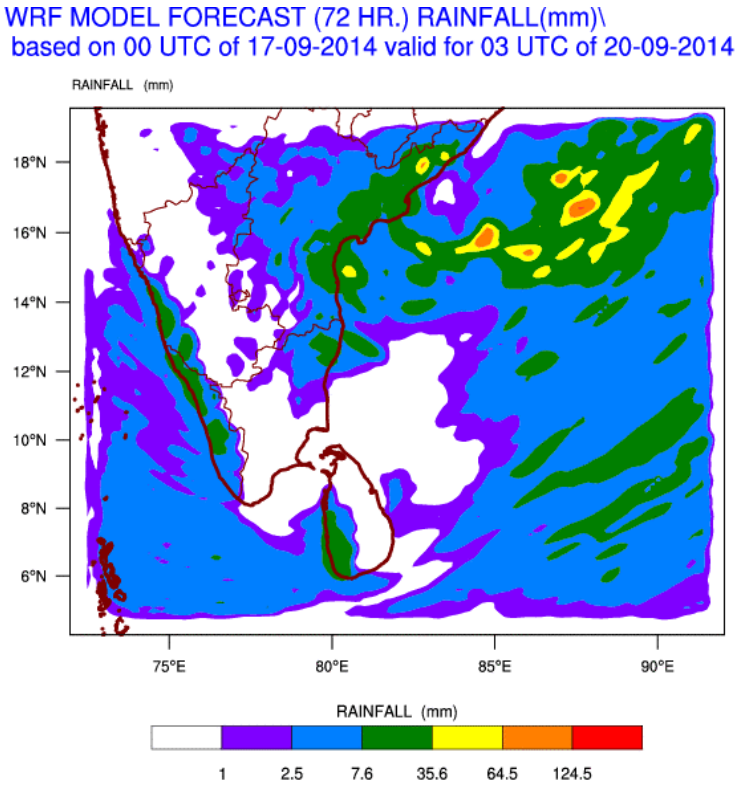
b) WRF model forecast from **Regional Meteorological Center, Chennai of Indian Meteorological Department**





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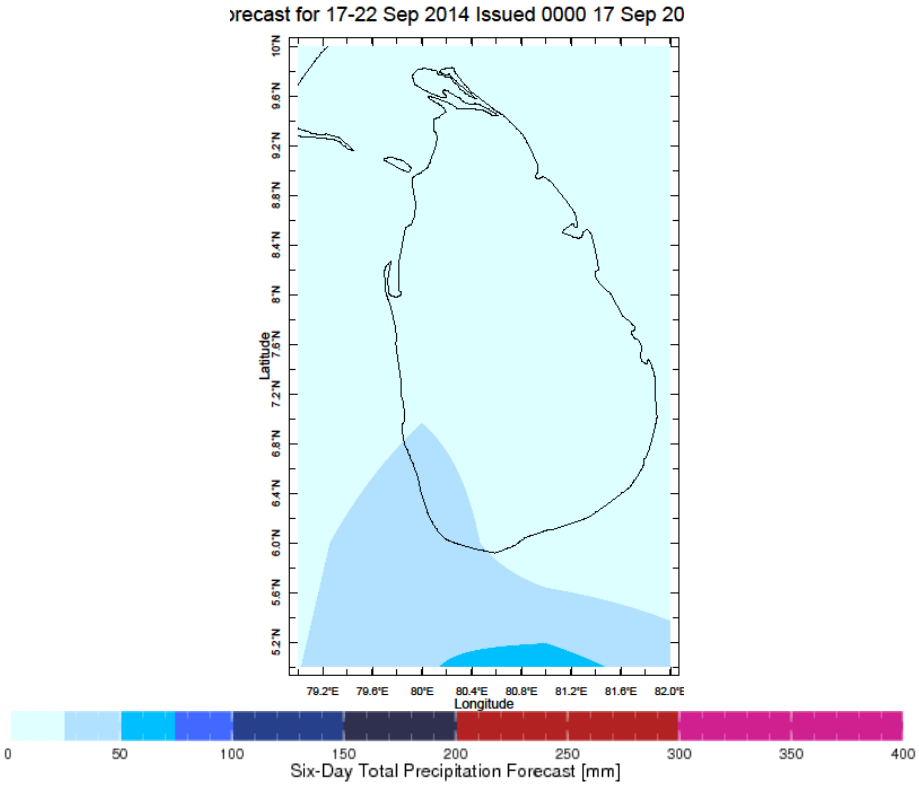
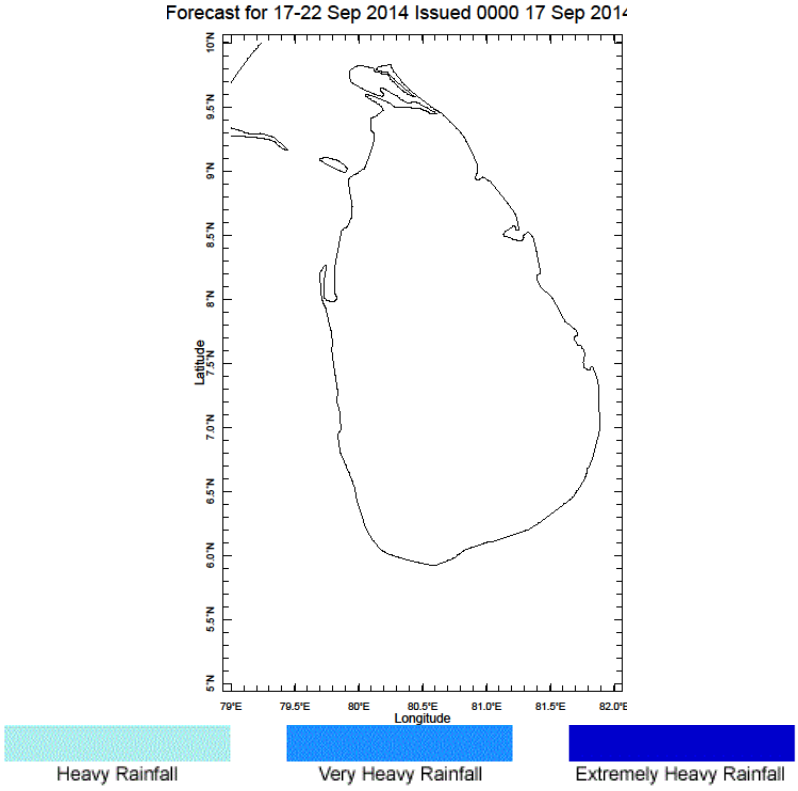
c) Weekly Precipitation Forecast for 17th- 22nd September 2014 (Precipitation Forecast in Context Map Tool, IRI)





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e) Seasonal Rainfall and Temperature Predictions from IRI