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

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

27 November 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/

20 November, 2014

PACIFIC SEAS STATE

During late October through early November the SST exceeded thresholds for weak Niño conditions, although only some of the atmospheric variables indicate an El Niño pattern. Most of the ENSO prediction models indicate weak El Niño conditions during the November-January season in progress, continuing well into the northern spring 2015.

(Text Courtesy IRI)

INDIAN OCEAN STATE

Around 0.5^{0}C above average sea surface temperature was observed towards the west coast.

MJO STATE

MJO is in Phase 3 in Indian Ocean and therefore shall enhance the rainfall in Sri Lanka.

Highlights

Monitoring and Predictions:

Heavy rainfall was observed throughout the country in the previous week with highest rainfall in the northern region. Rainfall shall decrease during next week in the southern and central regions but not in a significant level. The western sea region of Sri Lanka shows an above average sea surface temperature.

Summary

Monitoring

***Weekly Monitoring*:** From 18th to 21st November significantly high rainfall was observed throughout the country averaging up to 70 mm with above 80 mm in north-east region. Rainfall has decreased in the entire country up to 40 mm during 22nd to 24th November. Highest rainfall was observed in Trincomalee and Batticloa during the week.

***Monthly Monitoring*:** An average rainfall of 14 mm-16 mm was observed throughout the country with higher precipitation observed in the south-western regions of Sri Lanka during October. Highest rainfall during this month was observed in Uva, Sabaragamuwa and Central provinces. Also the decadal rainfall average was increased from 7 mm to 16 mm within a week.

Predictions

14 day prediction: The Northern peninsula shall receive rainfall above 135 mm during 26th November to 2nd of December. Rainfall shall decrease throughout the country up to 35 mm during the week of 3rd to 9th of December.

IMD WRF &IRI Model Forecast: According to the IMD WRF model the entire country shall receive average rainfall around 35.6 mm on 28th of November. Rainfall is expected to decrease in the southern region on 29th of November with around 7.6 mm- 35.6 mm average in the rest of the country.

Seasonal Prediction: As per IRI Multi Model Probability Forecast issued in November for the season December 2014 to February 2015, Rainfall shall remain climatological while the temperature shall be above normal with a high 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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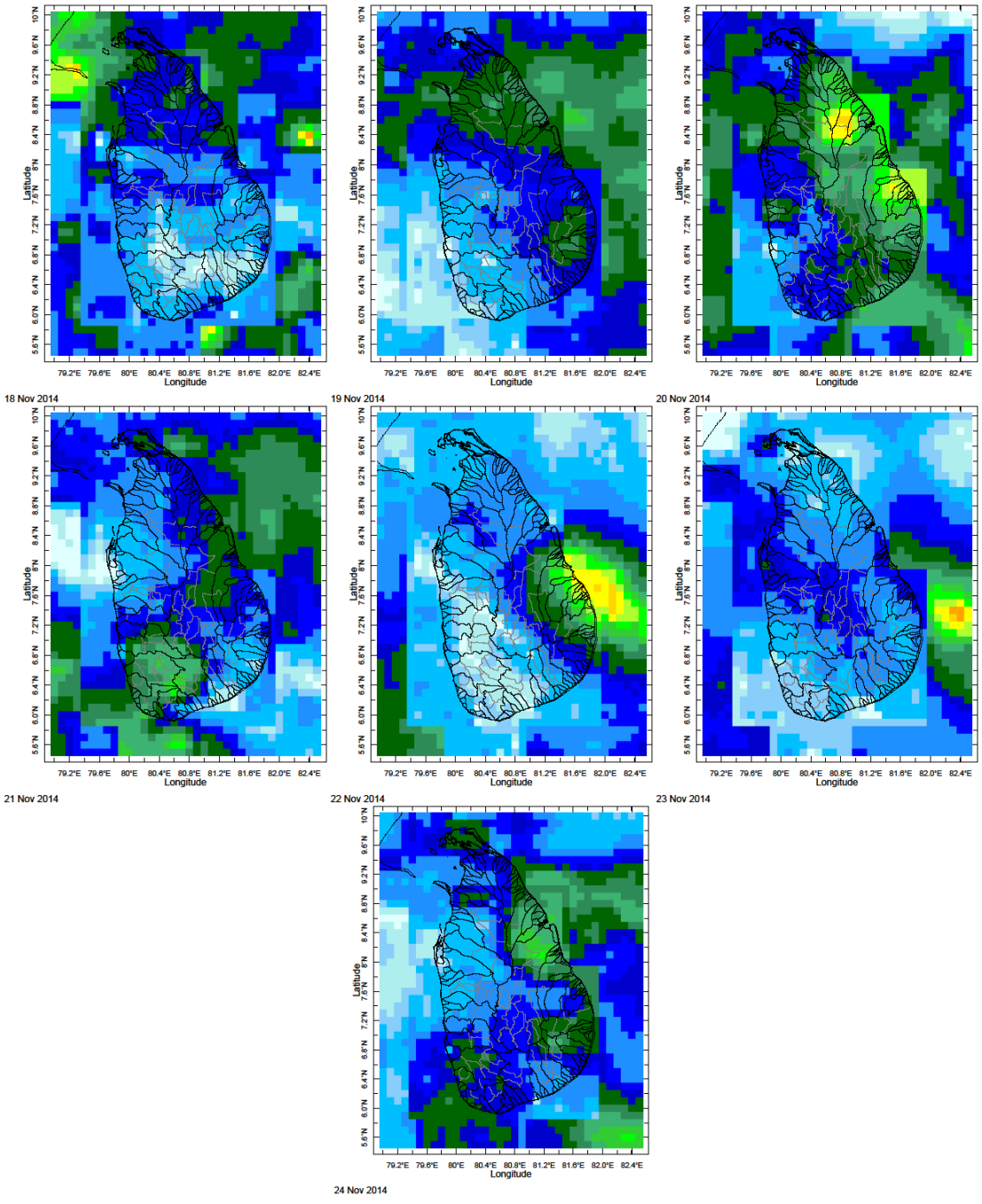
1. Monitoring

a) ***Daily Satellite Derived Rainfall Estimate*** **Maps:18th November-24th November** ***2014(Left-Right, Top-Bottom)***



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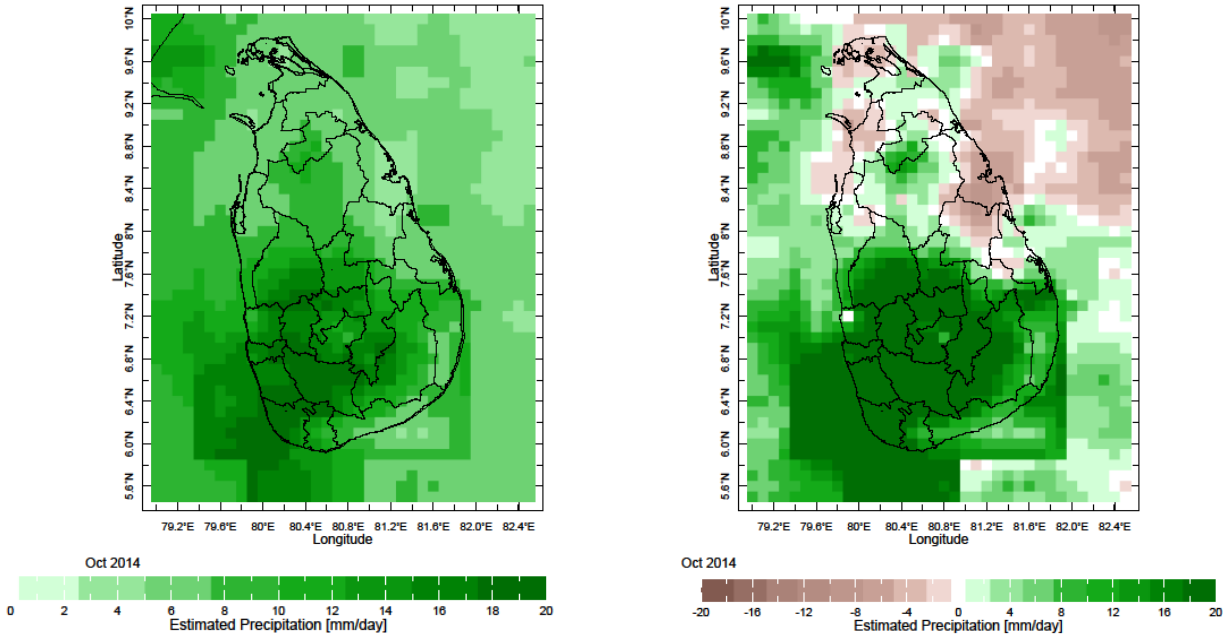
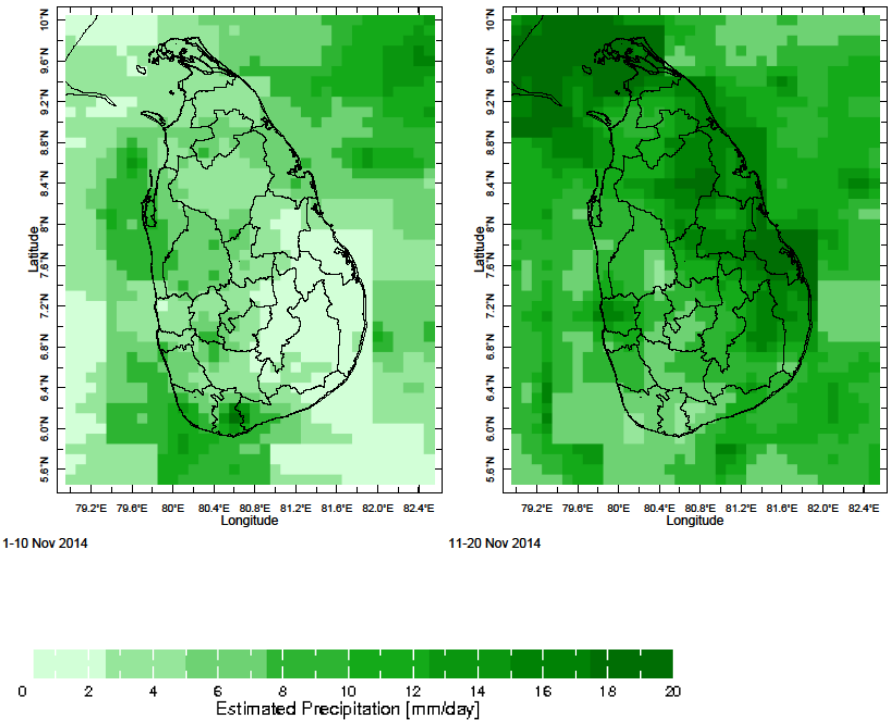
b) Monthly Satellite Derived Rainfall Estimates for October 2014 (Average – Left and Anomaly - Right)



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



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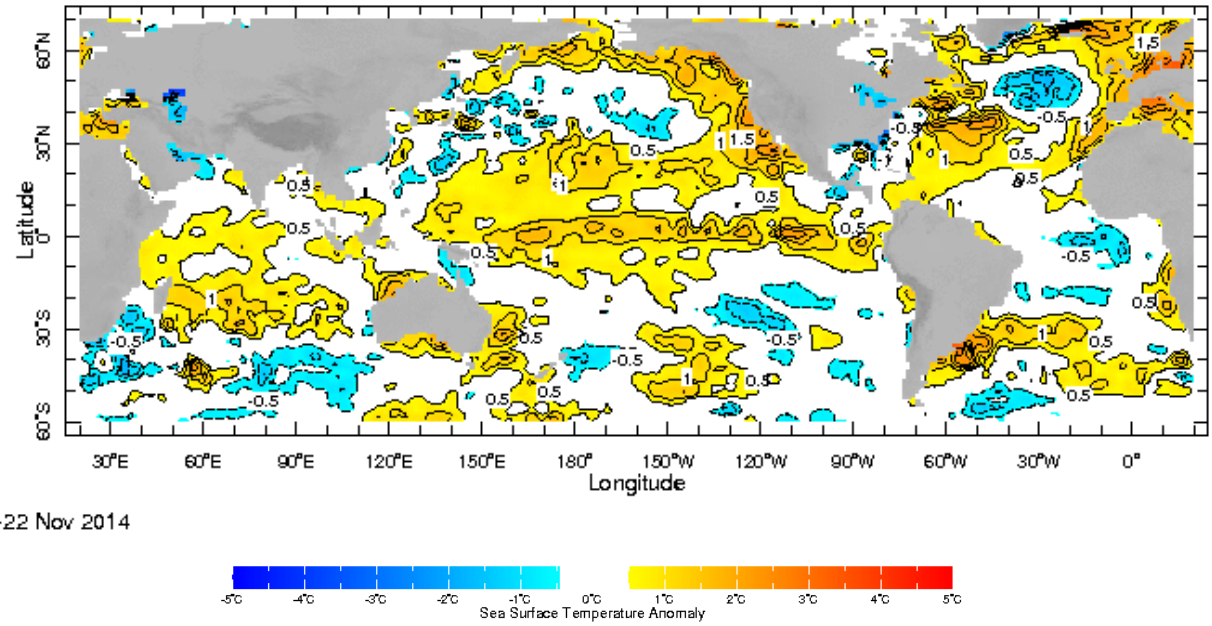
d) Weekly Average SST Anomalies



Weekly Average SST Anomalies (^{0}C), 16th November-22nd November, 2014

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

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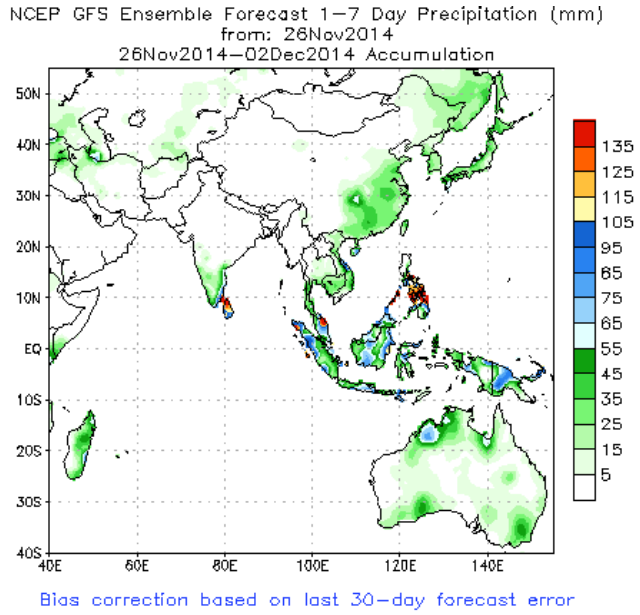
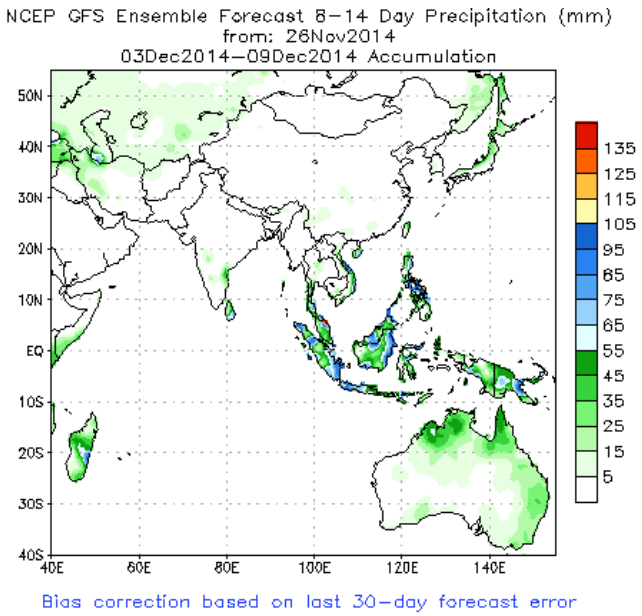
2. Predictions

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





Source – NOAA Climate Prediction Center

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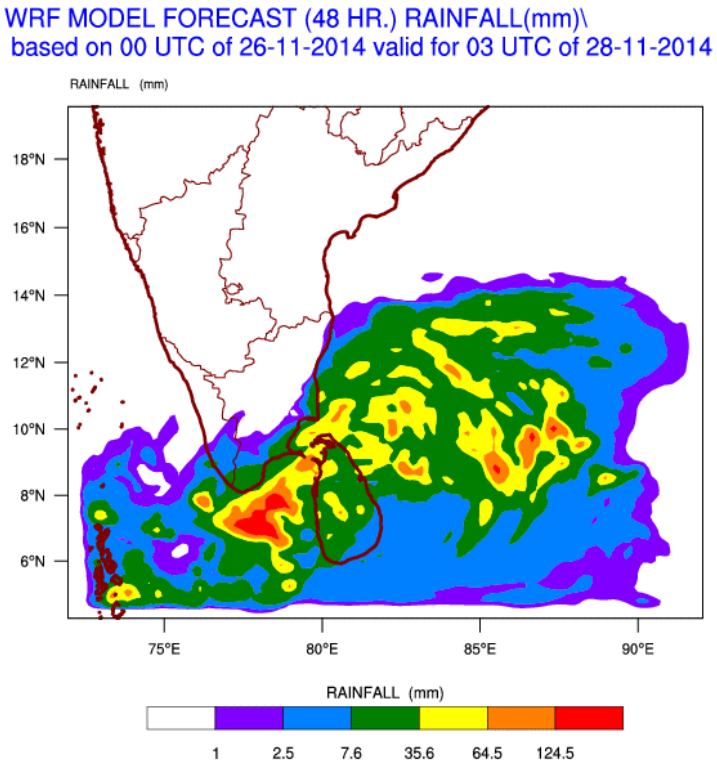
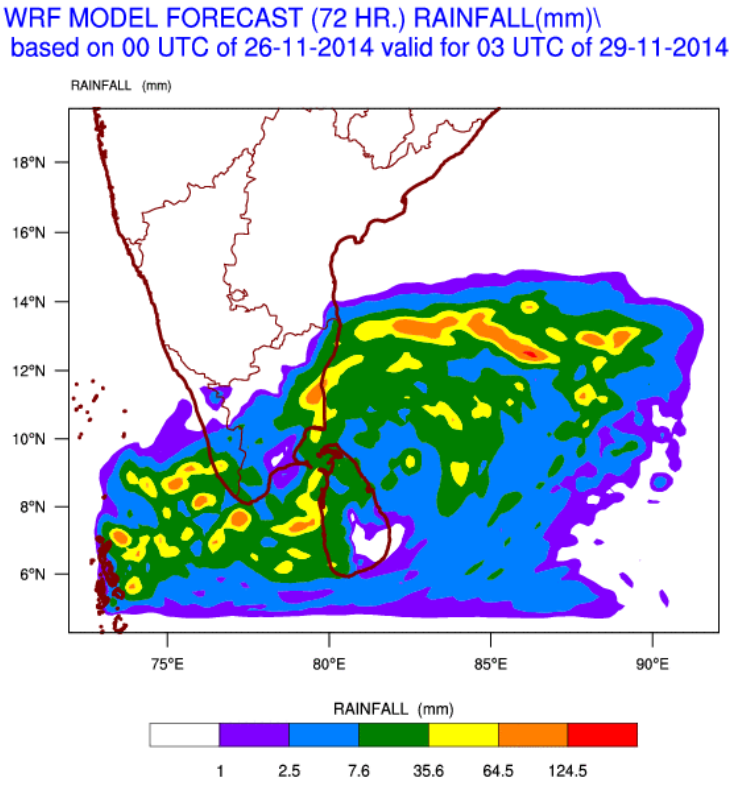
b) WRF model forecast from **Regional Meteorological Center, Chennai of Indian Meteorological Department**





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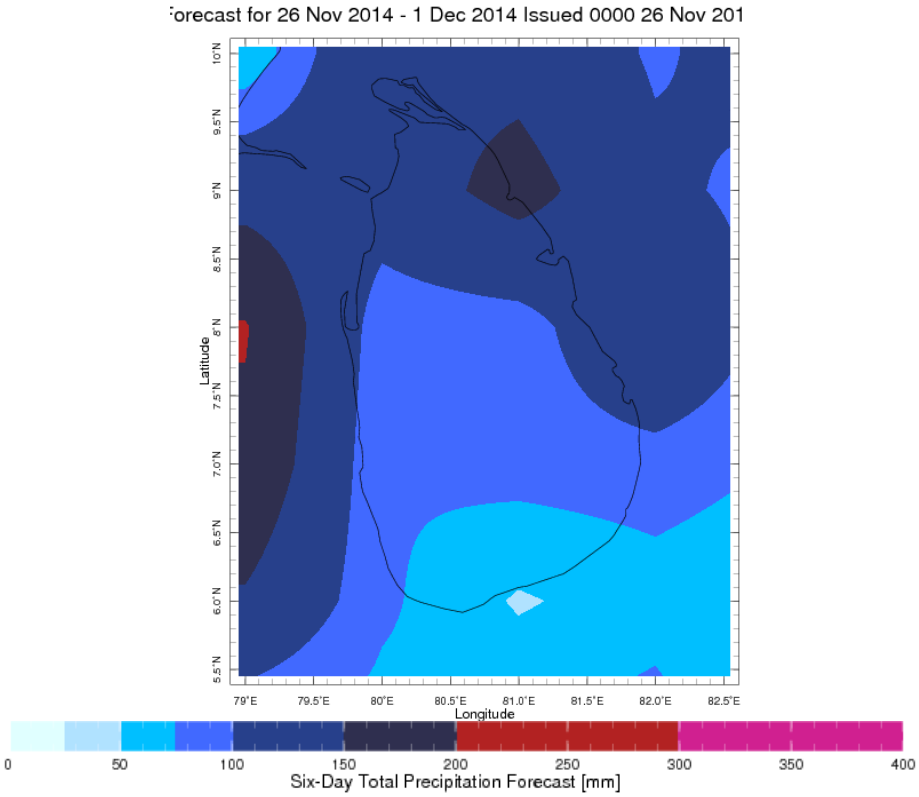
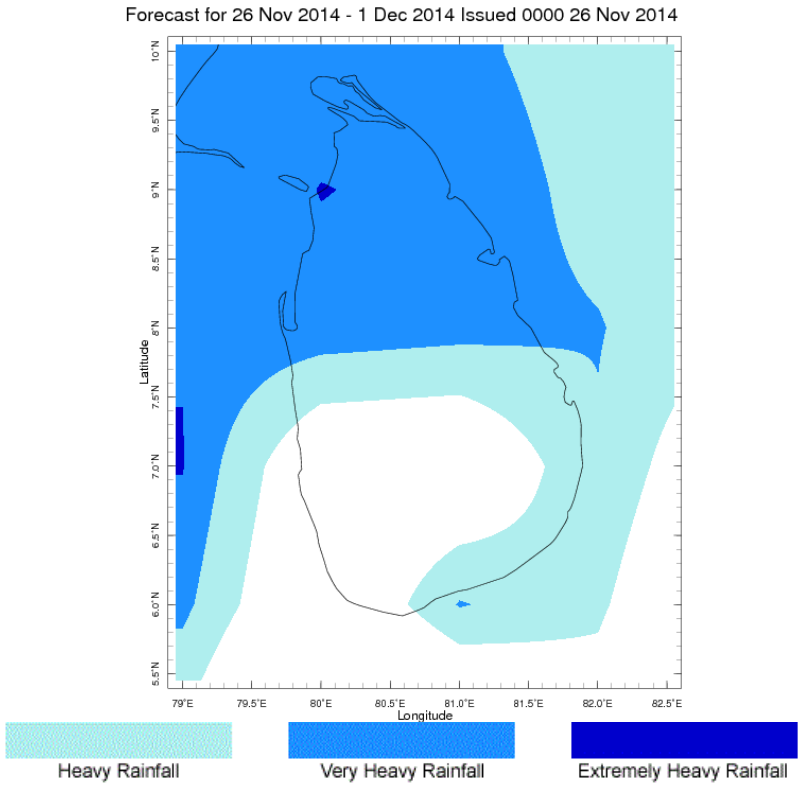
c) Weekly Precipitation Forecast for 26th November – 1st December (Precipitation Forecast in Context Map Tool, IRI)





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e) Seasonal Rainfall and Temperature Predictions from IRI