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

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14 November 2013

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

October 17, 2013

PACIFIC SEAS STATE

During September through October the observed ENSO conditions remained neutral. Most of the ENSO prediction models indicate a continuation of neutral ENSO through 2013 & the first quarter of 2014. A long lasting mean disagreement between statistical and dynamical models (statistical leaning cooler, dynamical warmer) has diminished. The average forecast of all models indicates a gradual warming tendency during the first half of the 2014.

(Text Courtesy IRI)

INDIAN OCEAN STATE

The sea surface temperature around Sri Lanka was neutral during 27th October-2nd November 2013.

MJO STATE

MJO was at 3rd phase on 8th November and presently moving to 4th phase which shall not influence Sri Lanka rainfall.

Highlights

Monitoring and Predictions:

Rainfall shall decrease gradually till 21st of November and shall increase gradually thereafter. However, eastern half of the island shall experience more rainfall compared to the rest of the island during coming week (14th-18th November 2013). Jaffna Peninsula shall receive heaviest rainfall during next few days (around 17th November).

Summary

Monitoring

***Weekly Monitoring*:** During 5th-12th November 2013, rainfall ranged 5-70 mm/day. However, entire country received less than 10 mm/day of rainfall throughout the week, except small region in Vavuniya district on 5th November.

***Monthly Monitoring*:** Jaffna and Batticaloa districts received an above average rainfall during the month of September.

Predictions

7-day prediction: During 12th-18th November 2013, South-eastern regions shall experience 5-55 mm of rainfall and shall spread towards central hills in an increasing pattern. For the same period Jaffna Peninsula shall receive rainfall of 55-85 mm.

IMD WRF Model Forecast & IRI forecast: For 17th of November, IMD WRF model predicts more than 125 mm of rainfall for the Jaffna Peninsula and less than 8 mm of rainfall for scattered parts of Northern half of the island. However, NOAA model predicts heavy rainfall for North-eastern regions of Sri Lanka during 11th -16th November 2013.

30 Days Prediction: Overall- Rainfall shall decrease gradually till 21st of November and shall increase gradually thereafter. ***Western Slopes*** – The rainfall pattern persisting in the entire country shall be observed in this region with high amount of rainfall. ***Western Coast*** – The rainfall pattern persisting in the entire country shall be observed in this region with high amount of rainfall. ***Eastern Slopes***– The rainfall pattern persisting in the entire country shall be observed in this region with frequent variations of rainfall events. ***Eastern Coast*** – The rainfall pattern persisting in the entire country shall be observed in this region and thereafter rainfall is not predicted. ***Northern region***- The rainfall shall remain constant during 14th-18th and thereafter the rainfall pattern persisting in the entire country shall be observed in this region. ***Southern Region***- The rainfall pattern persisting in the entire country shall be observed in this region with frequent variations of rainfall events.

***Seasonal Prediction*:** As per IRI Multi Model Probability Forecast issued on October 2013; for November, December 2013 to January 2014, there is a 60-70% probability for temperature to be above normal in the country while the rainfall is to be climatological.

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   b. Monthly Rain fall Estimates
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   a. NCEP GFS Ensemble 1-7 day predictions
   b. WRF model forecast Regional Meteorological Center, Chennai, Indian Meteorological Department)
   c. Weekly precipitation forecast (IRI)
   d. 1 month experimental predictions by Paul Roundy and L. Zubair
   e. 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.

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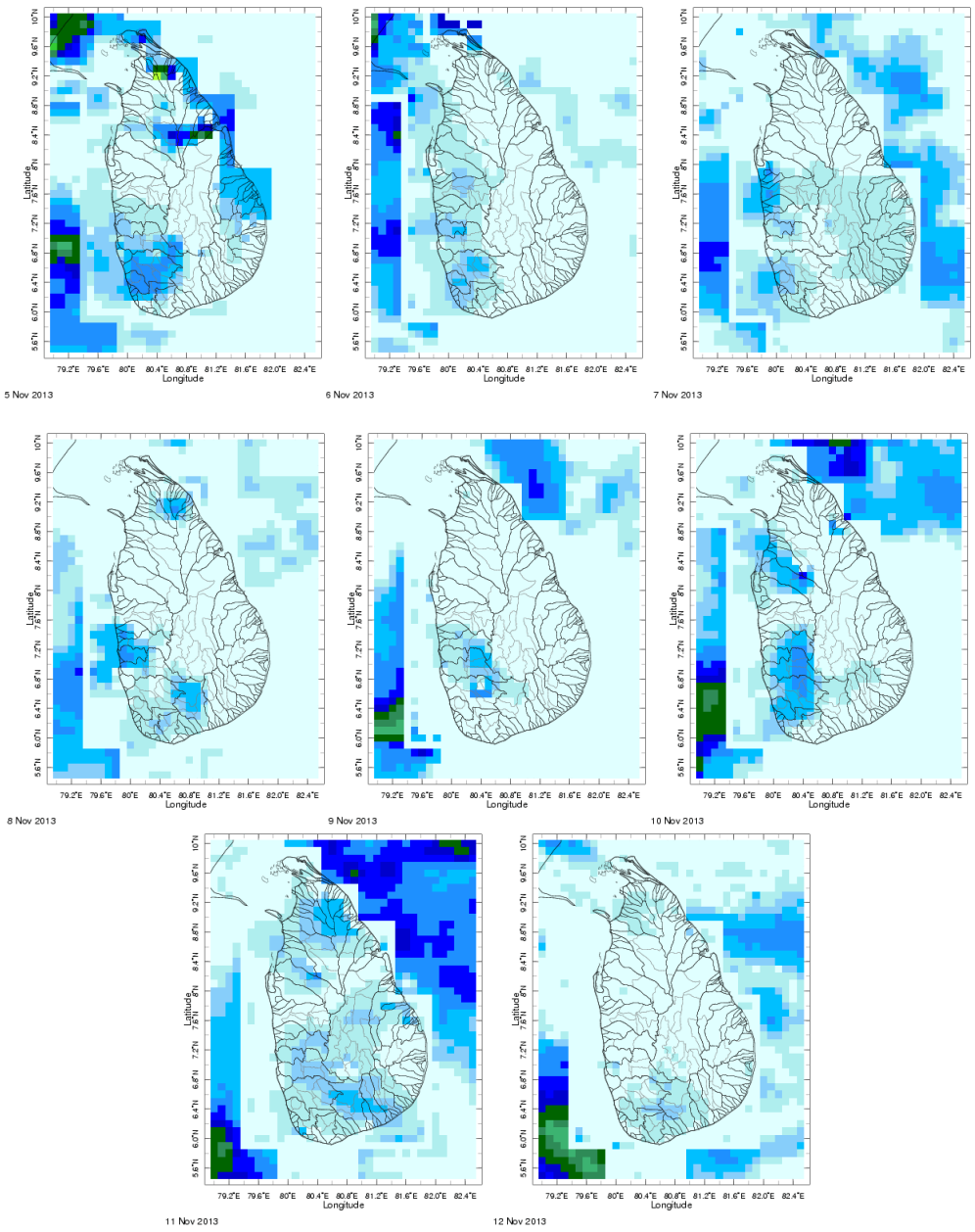
1. Monitoring

a) Daily Satellite Derived Rainfall Estimate Maps: 5th-12th November *2013 (Left-Right, Top-Bottom)*



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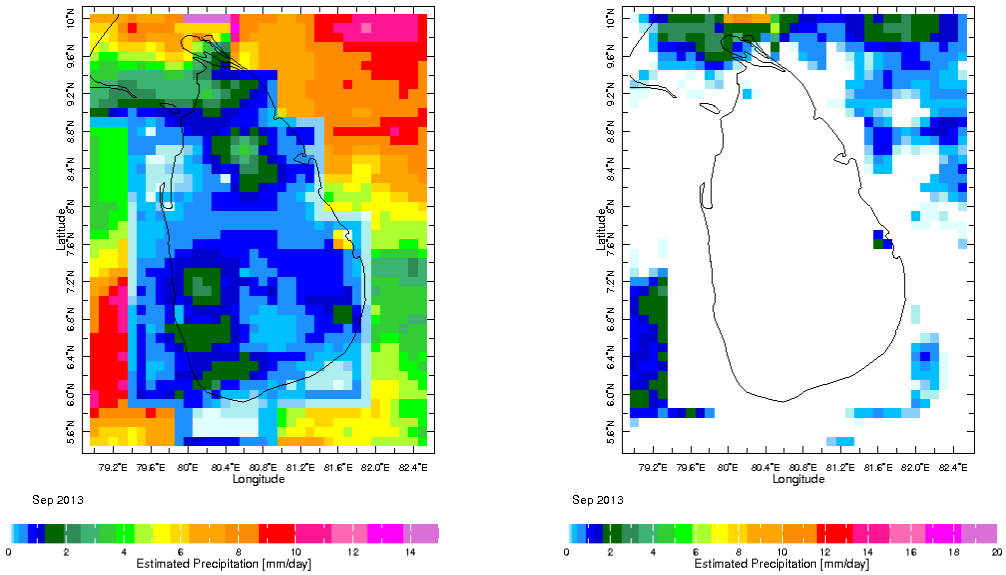
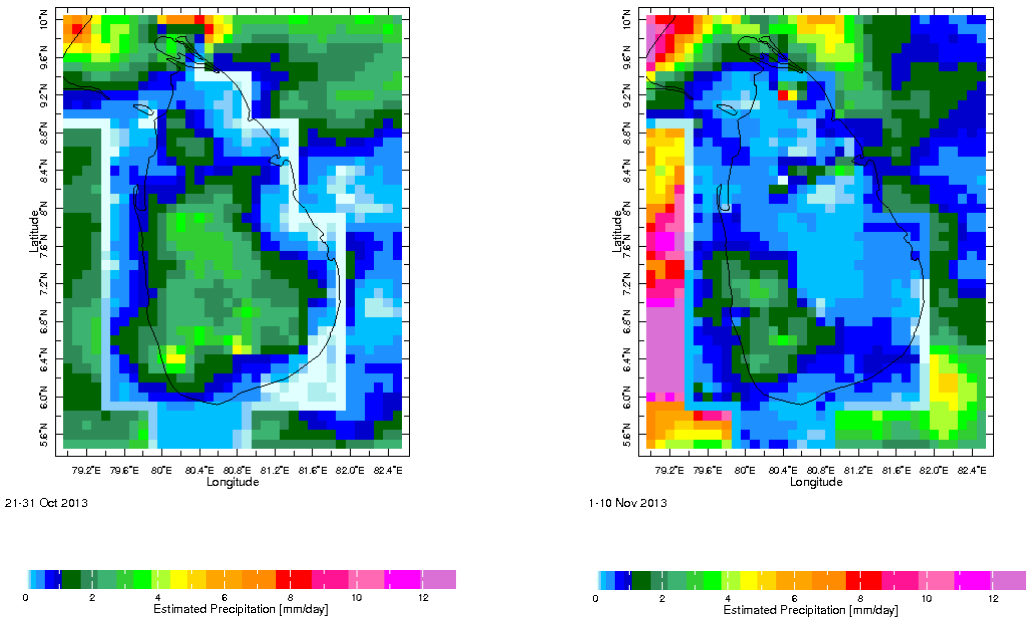
b) Monthly Satellite Derived Rainfall Estimates for September 2013 (Total – Left and Anomaly - Right)



c) Dekadal (10 Day) Satellite Derived Rainfall Estimates (21-31 October & 01-10 November, 2013)



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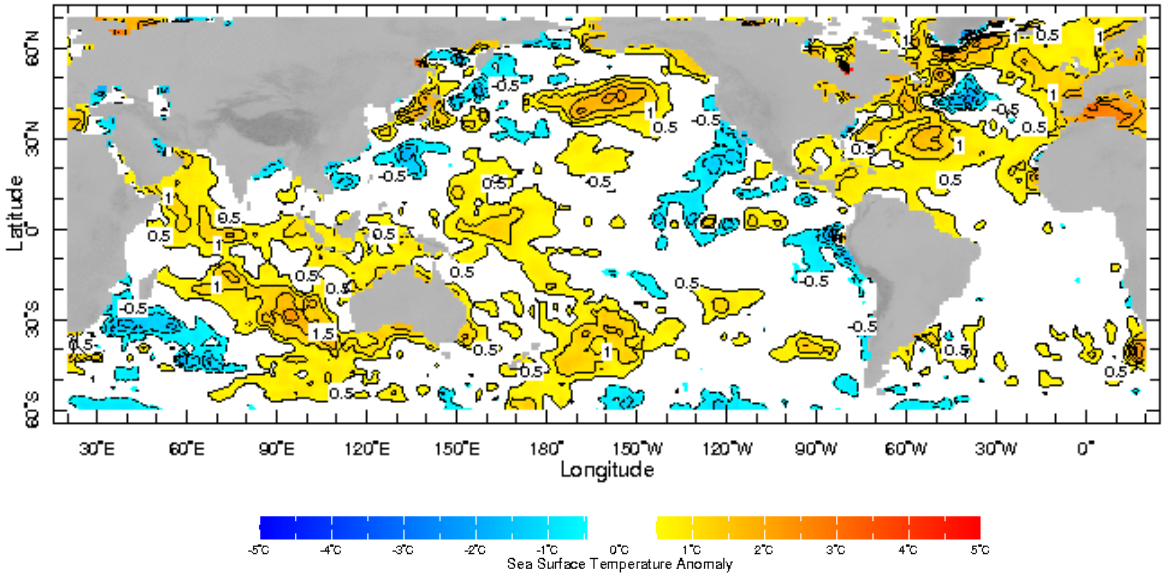
b) Weekly Average SST Anomalies

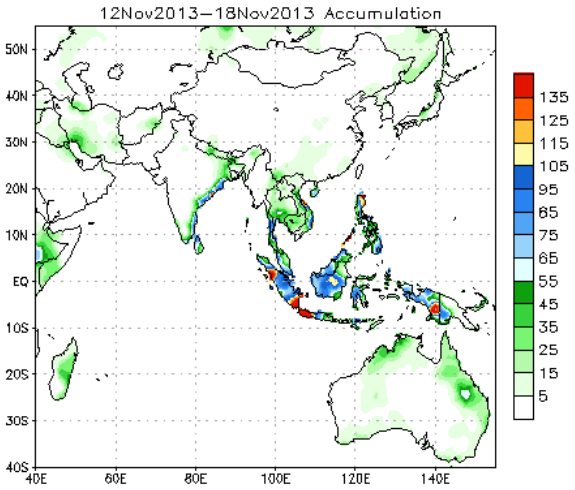


Weekly Average SST Anomalies (^{0}C), 27th-2nd November, 2013

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

2. Predictions

a) NCEP GFS Ensemble 1-7 day predictions, NOAA, Climate Prediction Centre, USA.



Source – NOAA Climate Prediction Center

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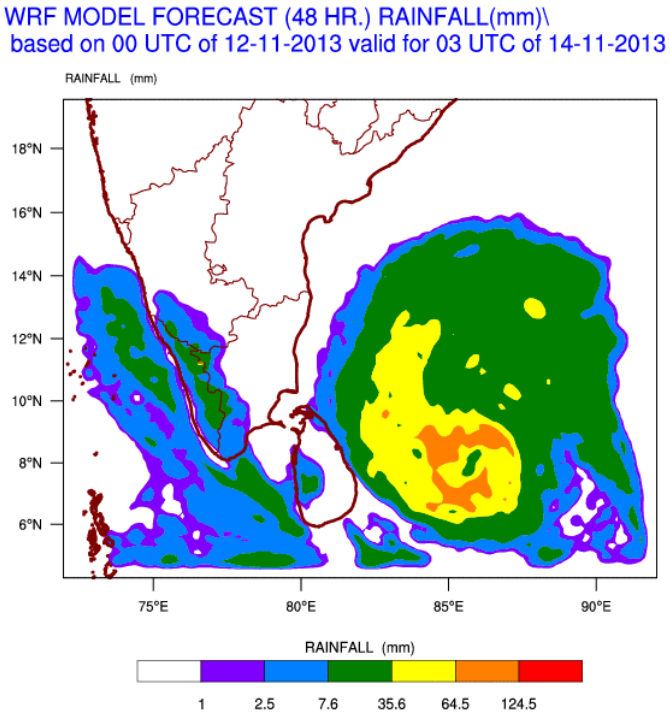
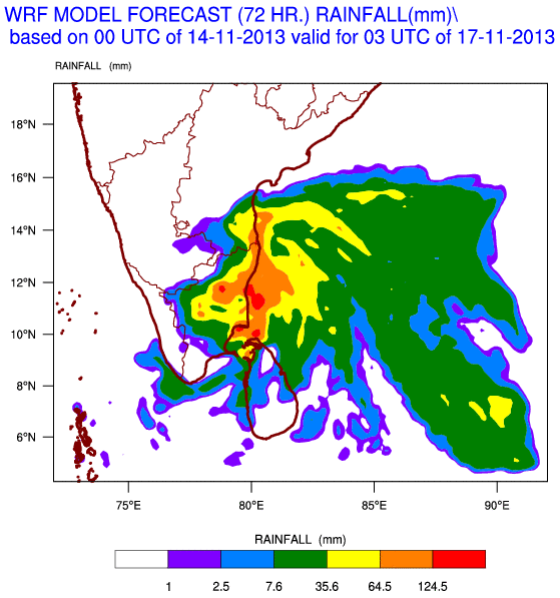
b) *WRF model forecast* RegionalMeteorological Center,Chennai, Indian Meteorological Department)





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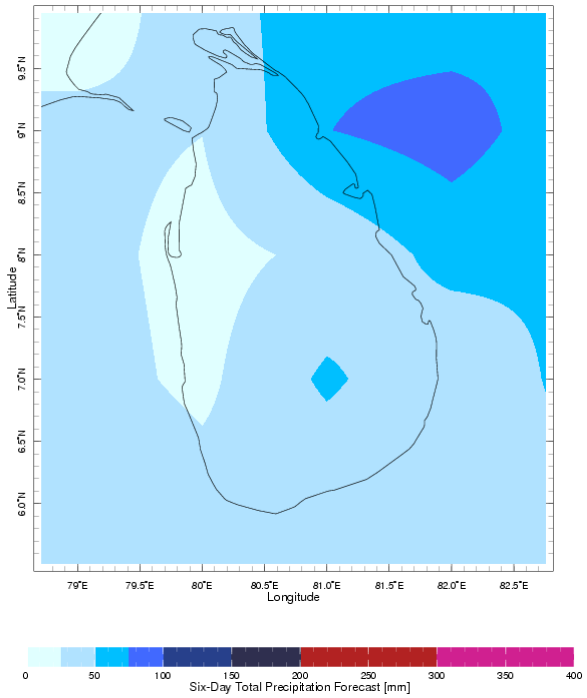
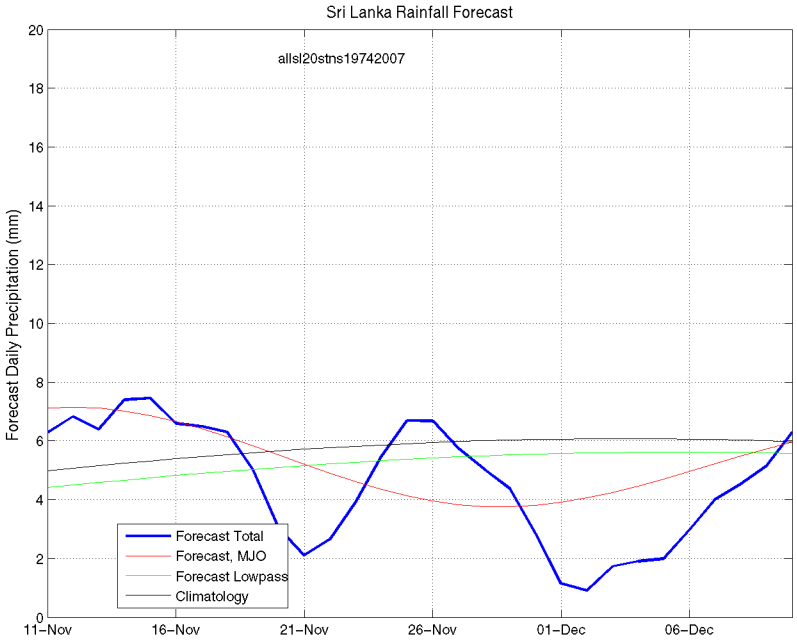
c) Weekly Precipitation Forecast for 11th-16th November 2013 (Precipitation Forecast in Context Map Tool, IRI)



d) 1 month experimental predictions by Paul Roundy and L. Zubair

Predictions based on observed cloud cover and atmospheric waves. Issued 15th November, 2013

All Sri Lanka (Rainfall Scale from 0-20mm/day)



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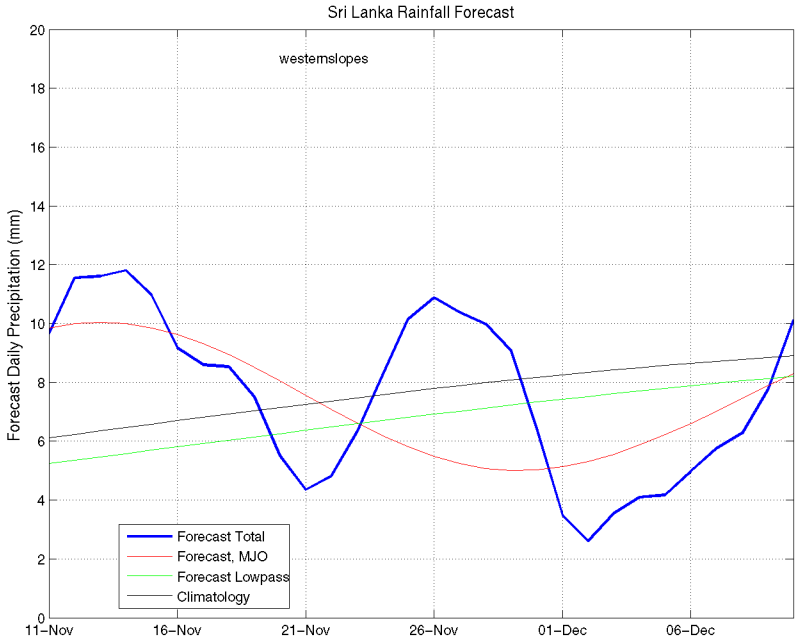
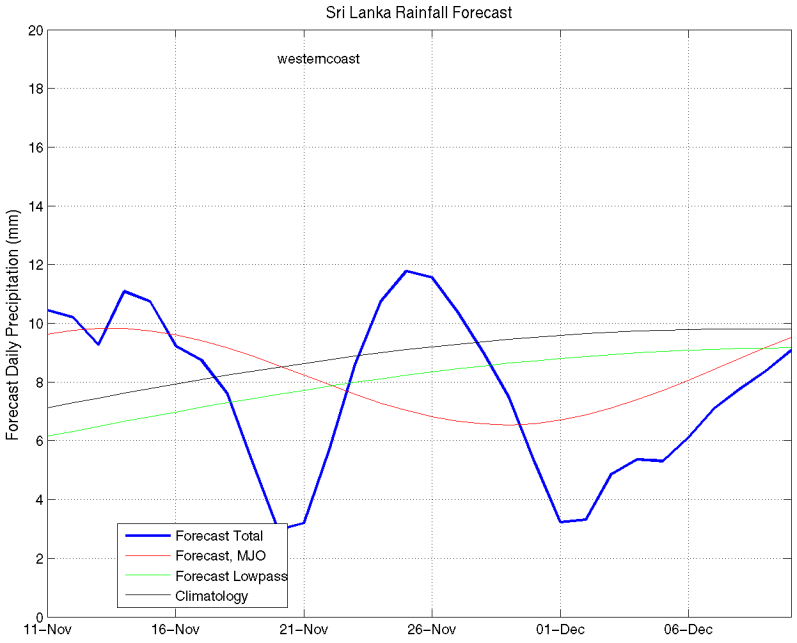
Western Slopes (Rainfall Scale from 0-20 mm/day)



Western Coast (Rainfall Scale from 0-20 mm/day)



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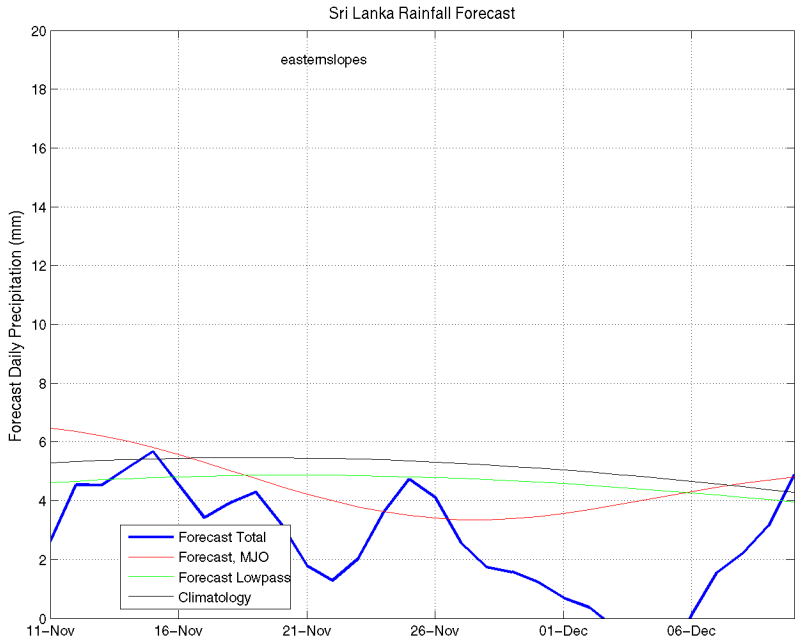
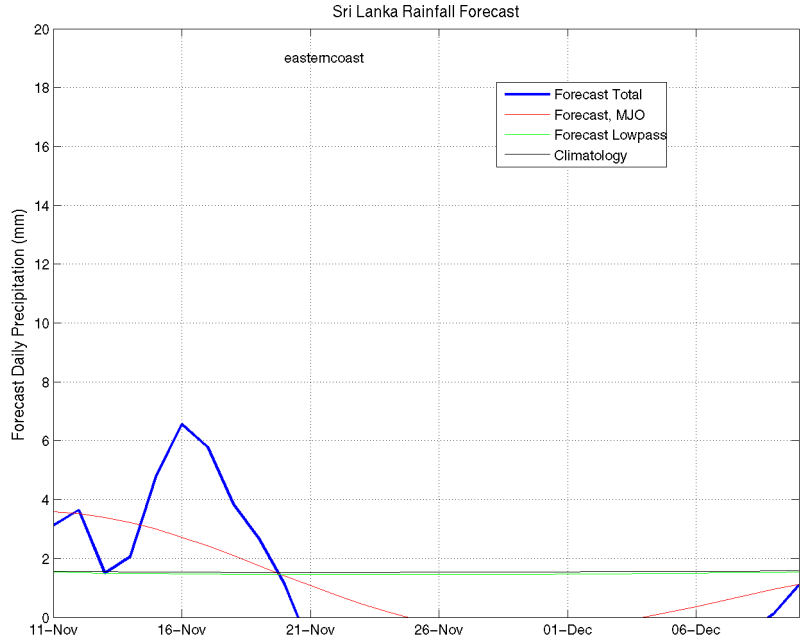
Eastern Slopes (Rainfall Scale- from 0-20 mm/day)



Eastern Coast (Rainfall Scale- from 0-20 mm/day)



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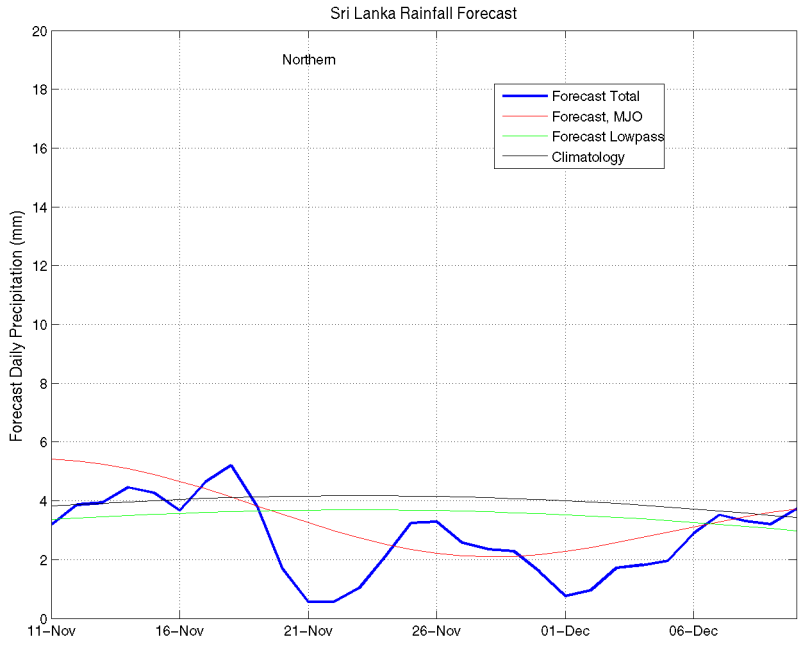
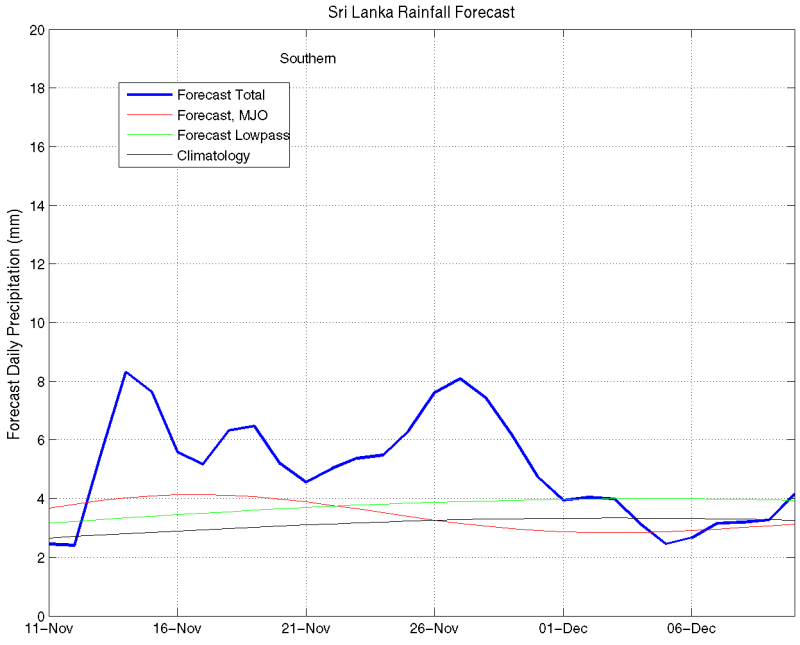
Northern Region (Rainfall Scale- from 0-20 mm/day)



Southern Region (Rainfall Scale- from 0-20 mm/day)



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e) Seasonal Rainfall and Temperature Predictions from IRI