

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/>

September 19, 2013 PACIFIC SEAS STATE

During August through early September 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. However, a few (mainly statistical) models call for cooling towards borderline or weak La-Nina conditions for northern autumn into winter, while a few others (mainly dynamical) forecast a warming toward borderline or weak El-Nino conditions for this same time frame.

(Text Courtesy IRI)

INDIAN OCEAN STATE

The sea surface temperature around Sri Lanka was neutral during 15th-21st September 2013.

MJO STATE

MJO is at phase 5 and is entering to phase 6, which shall not influence Sri Lanka rainfall.

Highlights

Monitoring and Predictions:

Northern regions, specially the Jaffna district shall receive more rainfall compared to the entire country. However entire Island shall not observe significant rainfall events during coming week (27th September-3rd October).

Summary

Monitoring

Weekly Monitoring: During 17th-24th September 2013, rainfall ranged 5-20 mm. More rainfall observed during 17th & 18th for Jaffna and Gampaha districts. Rest of the days was dry.

Monthly Monitoring: Central and Northern provinces received an above average rainfall during the month of August.

Predictions

7-day prediction: South-western regions shall receive 5-55 mm of rainfall and Northern regions shall receive 5-45 mm of rainfall during 25th September-1st October 2013.

IMD WRF Model Forecast & IRI forecast: For 27th & 29th of September, IMD WRF model predicts no rainfall for the entire country. NOAA model predicts high rainfall (25-50 mm/week) for Jaffna peninsula during 24th-29th September.

30 Days Prediction: Overall- Rainfall is not predicted till 4th of October 2013. **Western Slopes** – Rainfall shall vary between 0-2 mm/day during 26th September-11th October, except for 29th September-1st October, which shall receive rainfall of 2-4 mm/day. **Western Coast** – Rainfall is not predicted till 14th of October 2013. Slight rainfall is likely to observe during 30th September-1st October. **Eastern Slopes**– Rainfall is not predicted till 10th of October 2013. Slight rainfall is likely to observe during 4th-6th October. **Eastern Coast** – Rainfall is not predicted during 26th-30th September and 2nd-4th October. Rainfall shall increase drastically during 4th-6th October and shall decrease thereafter. **Northern region-** Rainfall is not predicted till 4th of October 2013. Slight rainfall is likely to observe during 4th-8th October. **Southern Region-** Rainfall shall vary below 2 mm/day during 26th September-7th October, except for 27th-29th September, which rainfall is not predicted.

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

Inside this Issue

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- Daily Satellite Derived Rain fall Estimates
- Monthly Rain fall Estimates
- Decadal (10 Day) Satellite Derived Rainfall Estimates
- Weekly Average SST Anomalies

2. Predictions

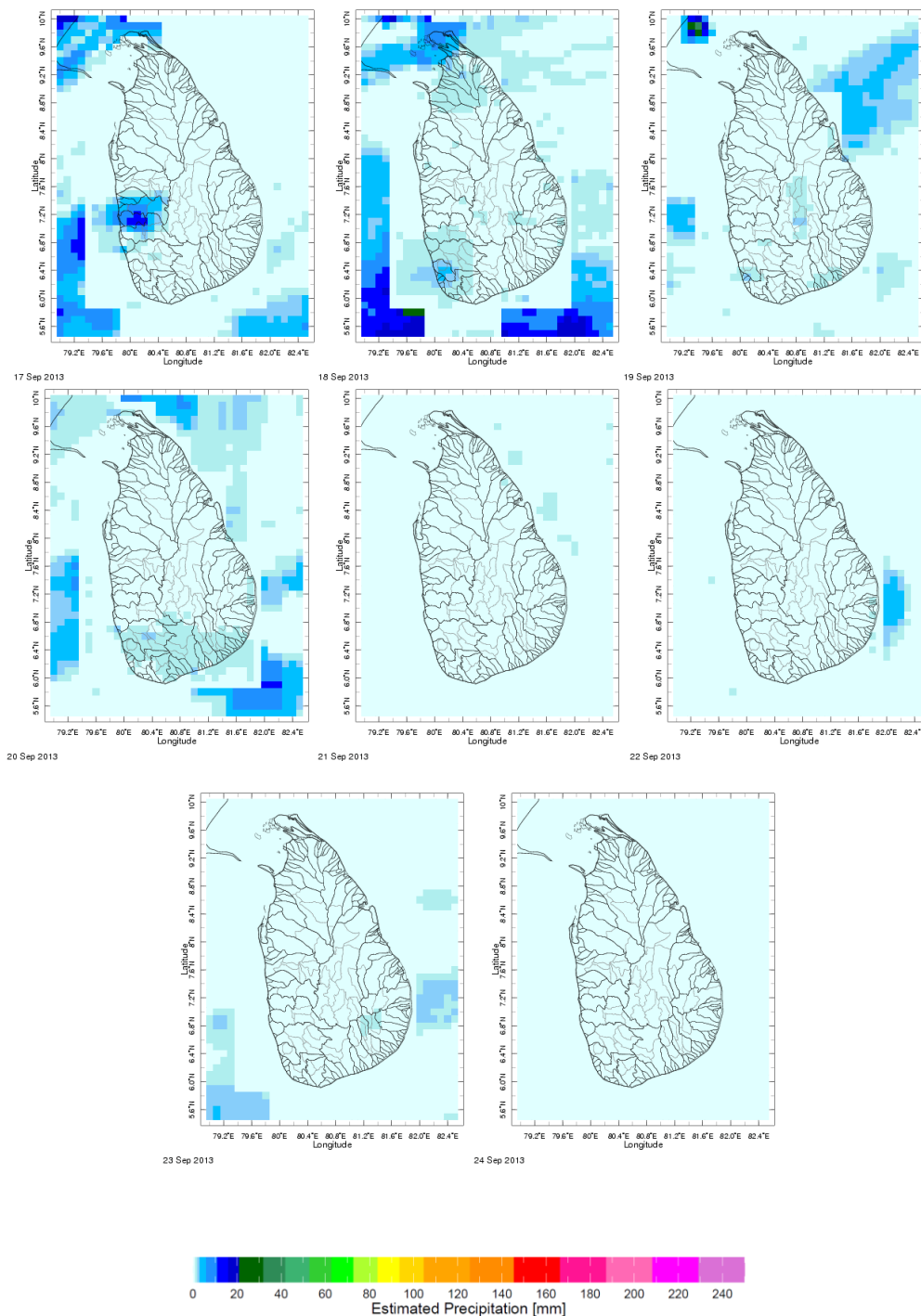
- NCEP GFS Ensemble 1-7 day predictions
- WRF model forecast Regional Meteorological Center, Chennai, Indian Meteorological Department)
- Weekly precipitation forecast (IRI)
- 1 month experimental predictions by Paul Roundy and L. Zubair
- Seasonal Predictions from IRI

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

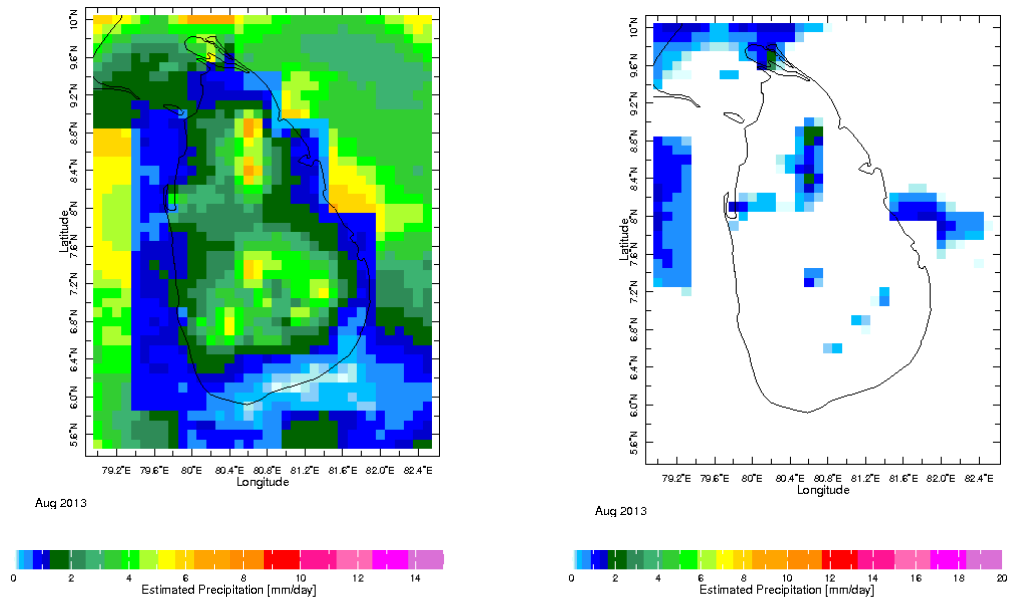
² These interpretations of hydro-meteorological conditions for the Mahaweli basins are provided for the use of the WMS/MASL.

1. Monitoring

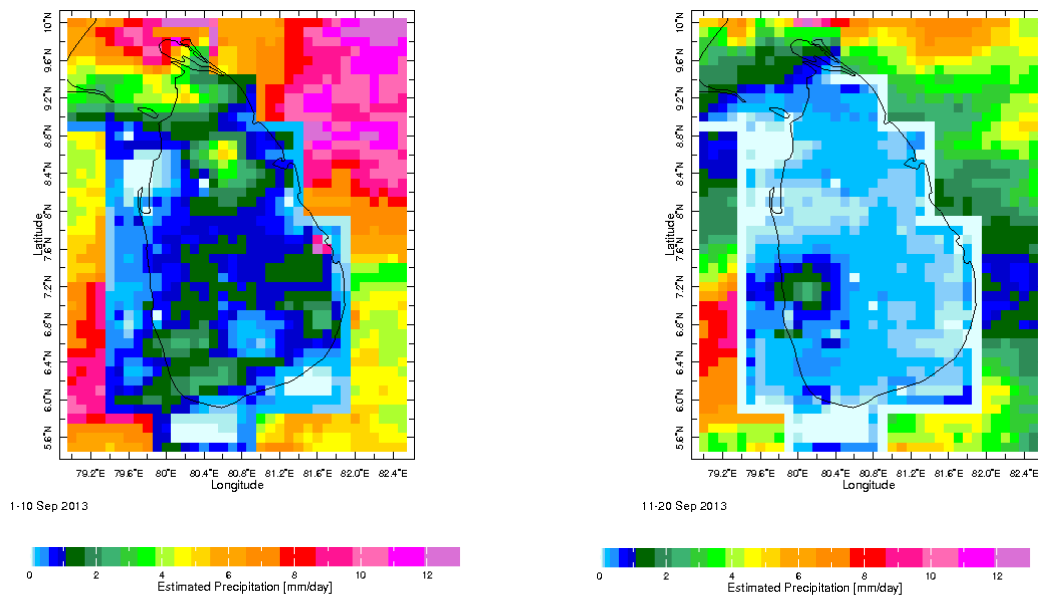
a) Daily Satellite Derived Rainfall Estimate Maps: 17th - 24th September 2013 (Left-Right, Top-Bottom)



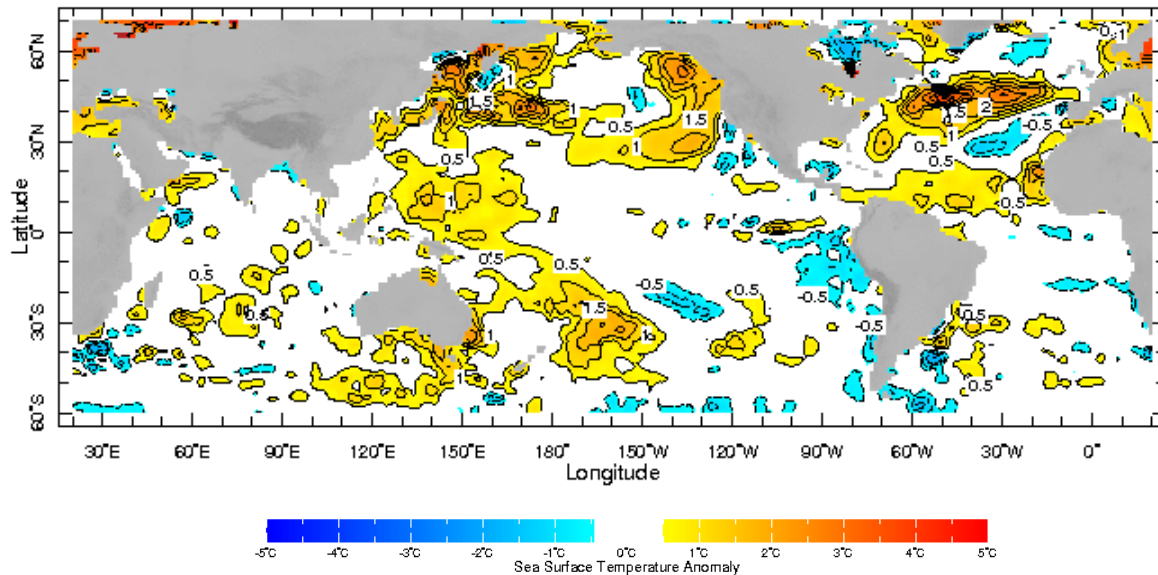
b) Monthly Satellite Derived Rainfall Estimates for August 2013 (Total – Left and Anomaly -Right)



c) Dekadal (10 Day) Satellite Derived Rainfall Estimates (01-10 September & 11-20 September, 2013)



b) Weekly Average SST Anomalies

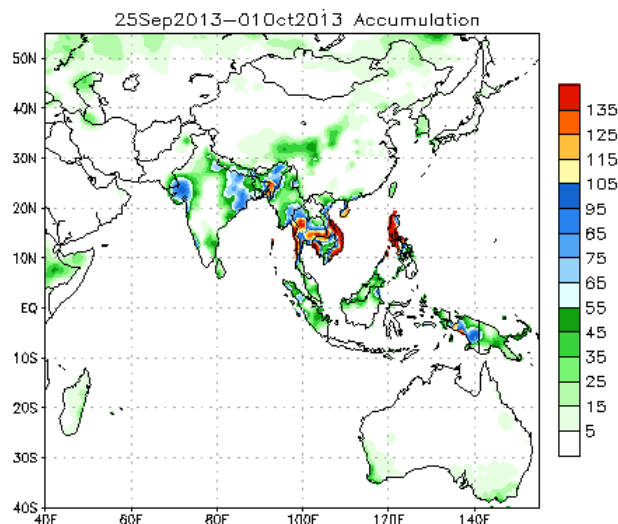


Weekly Average SST Anomalies ($^{\circ}$ C), 15th-21st September, 2013

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

2. Predictions

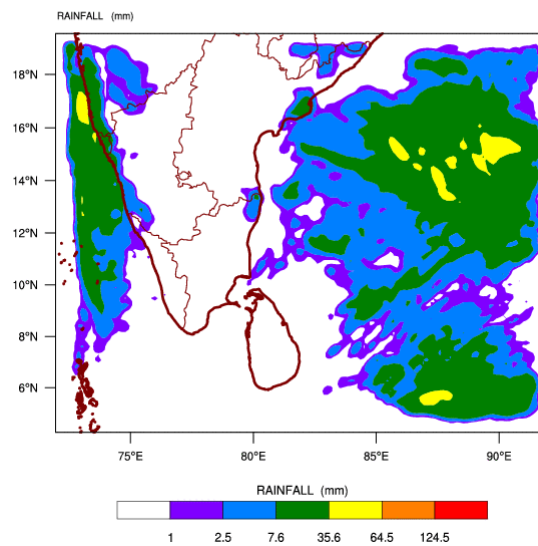
a) NCEP GFS Ensemble 1-7 day predictions, NOAA, Climate Prediction Centre, USA.



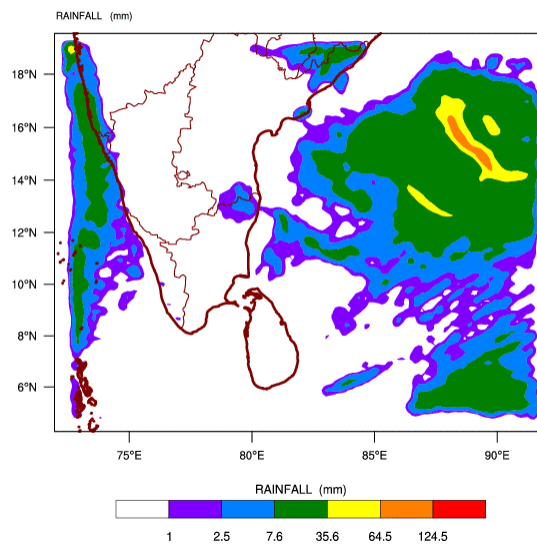
Source – NOAA Climate Prediction Center

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

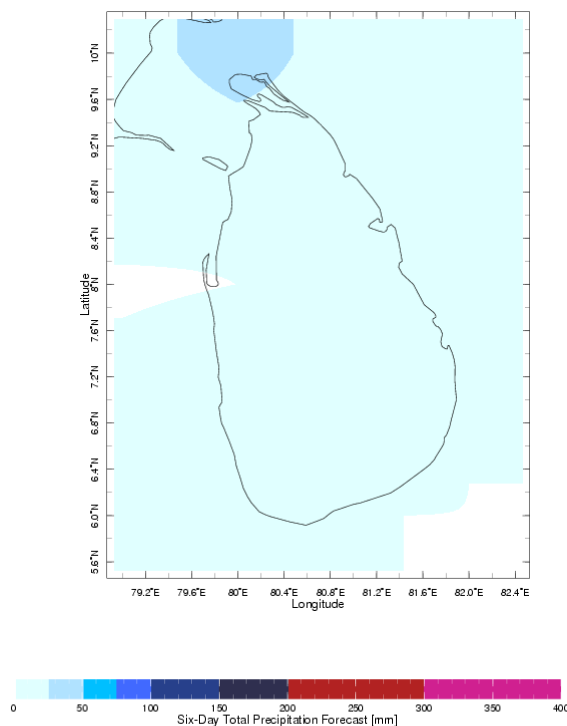
WRF MODEL FORECAST (48 HR.) RAINFALL(mm)
based on 00 UTC of 25-09-2013 valid for 03 UTC of 27-09-2013



WRF MODEL FORECAST (72 HR.) RAINFALL(mm)
based on 00 UTC of 25-09-2013 valid for 03 UTC of 28-09-2013



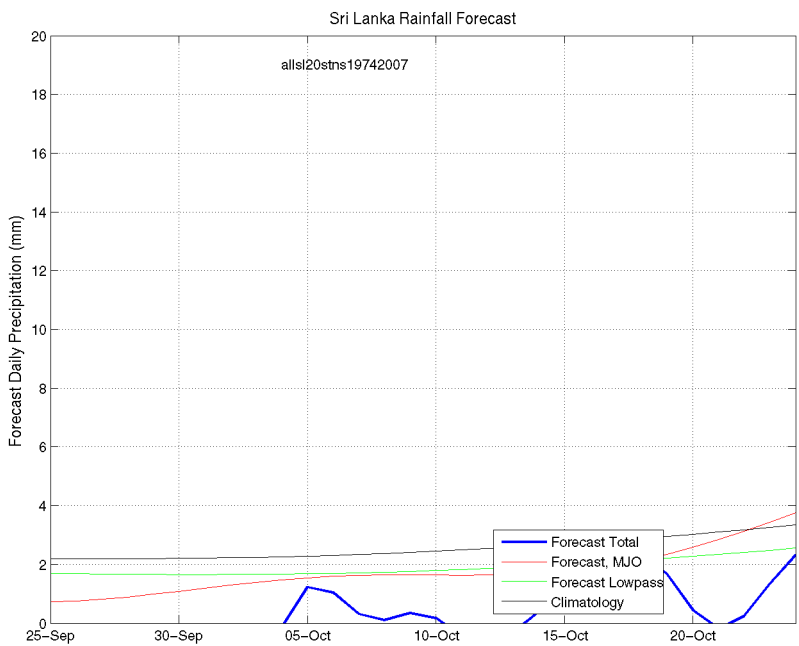
c) Weekly Precipitation Forecast for 24th-29th September 2013 (Precipitation Forecast in Context Map Tool, IRI)



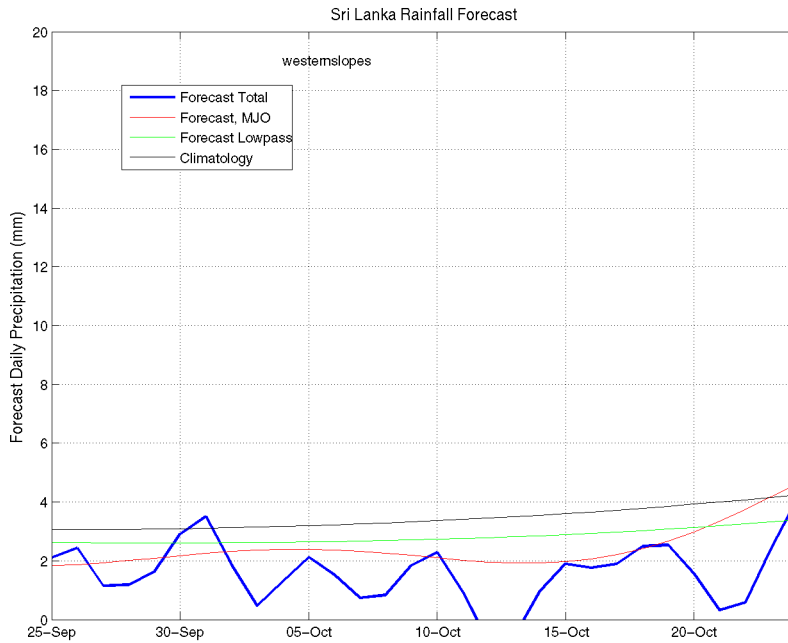
d) 1 month experimental predictions by Paul Roundy and L. Zubair

Predictions based on observed cloud cover and atmospheric waves. Issued 26th September, 2013

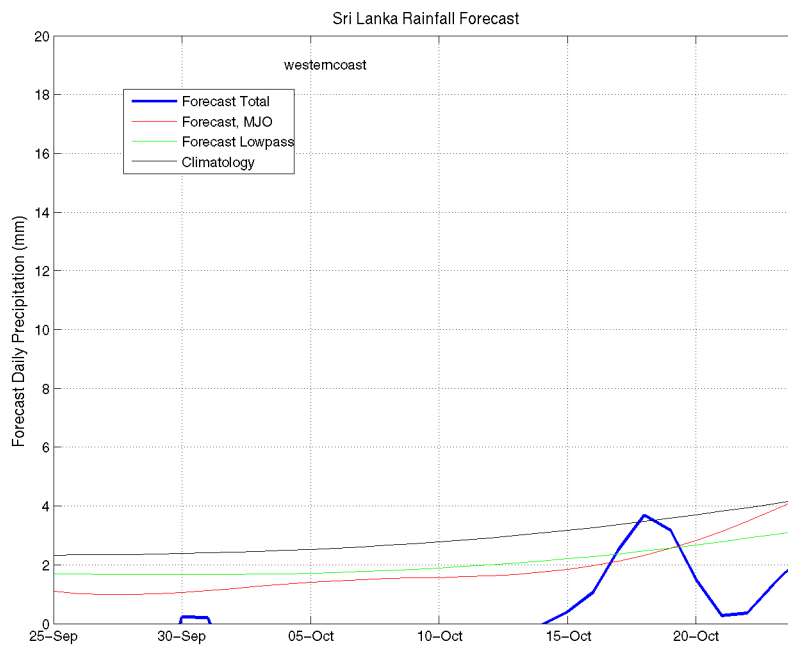
All Sri Lanka (Rainfall Scale from 0-20mm/day)



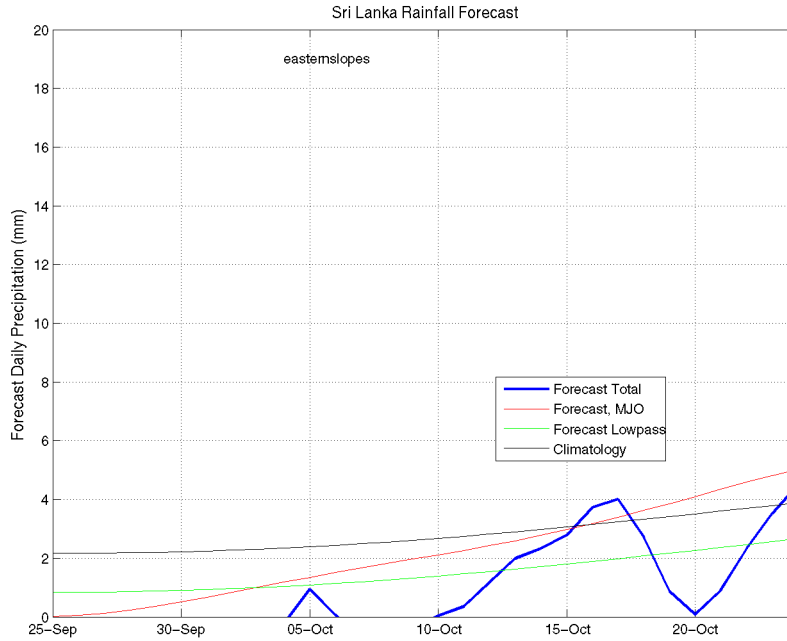
Western Slopes (Rainfall Scale from 0-20 mm/day)



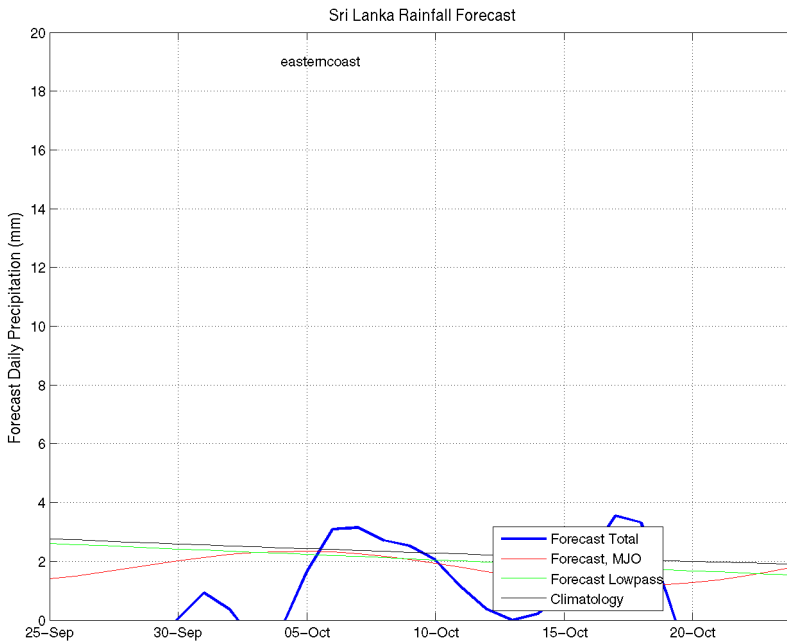
Western Coast (Rainfall Scale from 0-20 mm/day)



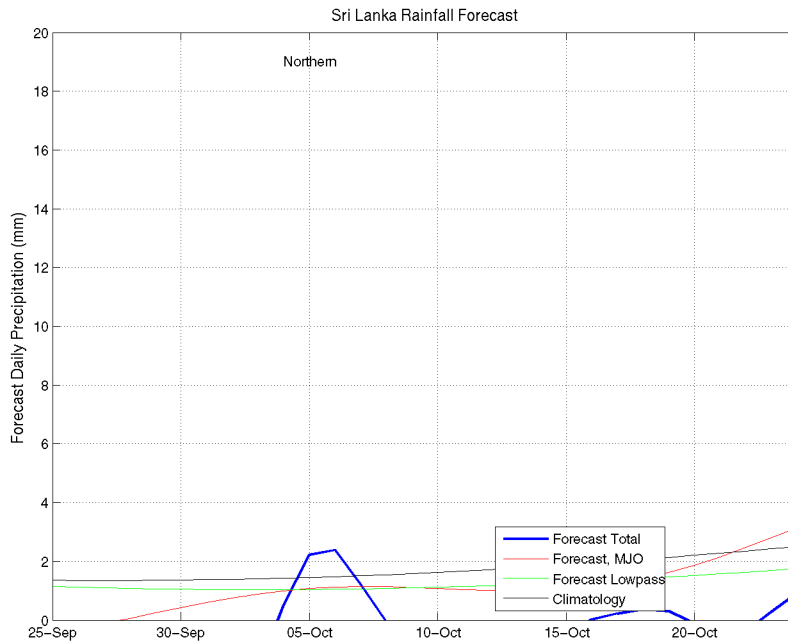
Eastern Slopes (Rainfall Scale- from 0-20 mm/day)



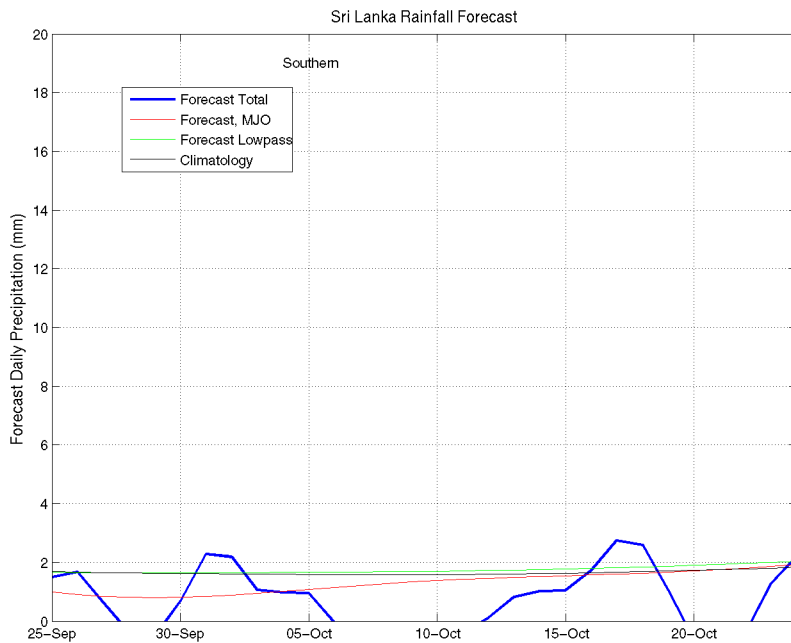
Eastern Coast (Rainfall Scale- from 0-20 mm/day)



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

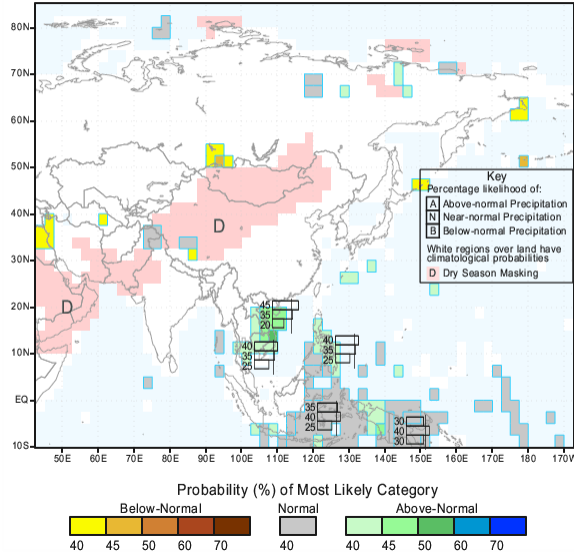


Southern Region (Rainfall Scale- from 0-20 mm/day)



e) Seasonal Rainfall and Temperature Predictions from IRI

IRI Multi-Model Probability Forecast for Precipitation
for October-November-December 2013, Issued September 2013



IRI Multi-Model Probability Forecast for Temperature
for October-November-December 2013, Issued September 2013

