

Experimental Climate Monitoring and Prediction

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FECT BLOG

Past reports available at
<http://fects.l.blogspot.com/>

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<http://www.climate.lk>

and

<http://www.tropicalclimate.org/>

May 16, 2013 PACIFIC SEAS STATE

During March through May the observed ENSO conditions remained in the neutral. Most of the ENSO prediction models indicate a continuation of neutral ENSO into northern autumn. However few models, mainly but not exclusively statistical models call for cooling towards borderline or weak La-Nina conditions during the coming northern summer season into the latter part of the 2013.
(Text Courtesy IRI)

INDIAN OCEAN STATE

The cold anomaly which was observed in the Indian Ocean around Sri Lanka had continued during 26th May-1st June 2013.

Highlights

Monitoring and Predictions:

In the coming week, Southwestern regions shall experience significant amount of rainfall, especially the Colombo district. Heavy rainfall shall be observed in the coastal belt between Gampaha-Galle in the coming two days (6th and 7th June). However, in most of regions of Sri Lanka, existing rainfall shall increase and shall reach a maximum on the 10th of June, for the next 30 day period.

Summary

Monitoring

Weekly Monitoring: Rainfall ranged between 5-70 mm during 28th May-3rd June 2013. Maximum rainfall was observed on the 30th May and was concentrated to small parts of Colombo and Ratnapura districts. However, previous week was wet for the entire country, where South, Southwestern and Western regions experienced heavy rainfall.

Predictions

7-day prediction: Colombo district shall receive 55-105 mm of rainfall & it shall spread in a reducing manner toward the center of the island in North-eastern direction during 5th-11th June 2013.

IMD WRF Model Forecast & IRI forecast: For 6th June, IMD WRF model predicts 65-125 mm rainfall for coastal regions between Gampaha-Kalutara and it shall spread in a reducing manner towards the Northern and Southern coastal regions and, central region of the island. For 7th June, land extent covered by rainfall on previous day shall expand further towards the center of the country. NOAA model prediction is not available for this week.

30 Days Prediction: Overall- Existing rainfall shall increase gradually till 10th of June and shall reach peak of 11 mm/day of rainfall. Thereafter rainfall shall reduce. But there shall not be any significant event during the next week (7th-14th June). **Western Slopes** – The rainfall pattern existing in the entire country shall be present in this region. **Western Coast** – The rainfall pattern existing in the entire country shall be present in this region. **Eastern Slopes** – The rainfall pattern existing in the entire country shall be present in this region. **Eastern Coast** – The increasing trend which persisted in the previous week shall continue till 10th and rest of the period, the rainfall pattern existing in the entire country shall be present. **Northern region-** The rainfall pattern existing in the entire country shall be present in this region. **Southern Region-** The rainfall shall vary around 5-8 mm/day during 7th-18th June.

Seasonal Prediction: As per IRI Multi Model Probability Forecast issued on May 2013; for June 2013 to August 2013, 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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- Daily Satellite Derived Rain fall Estimates
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2. Predictions

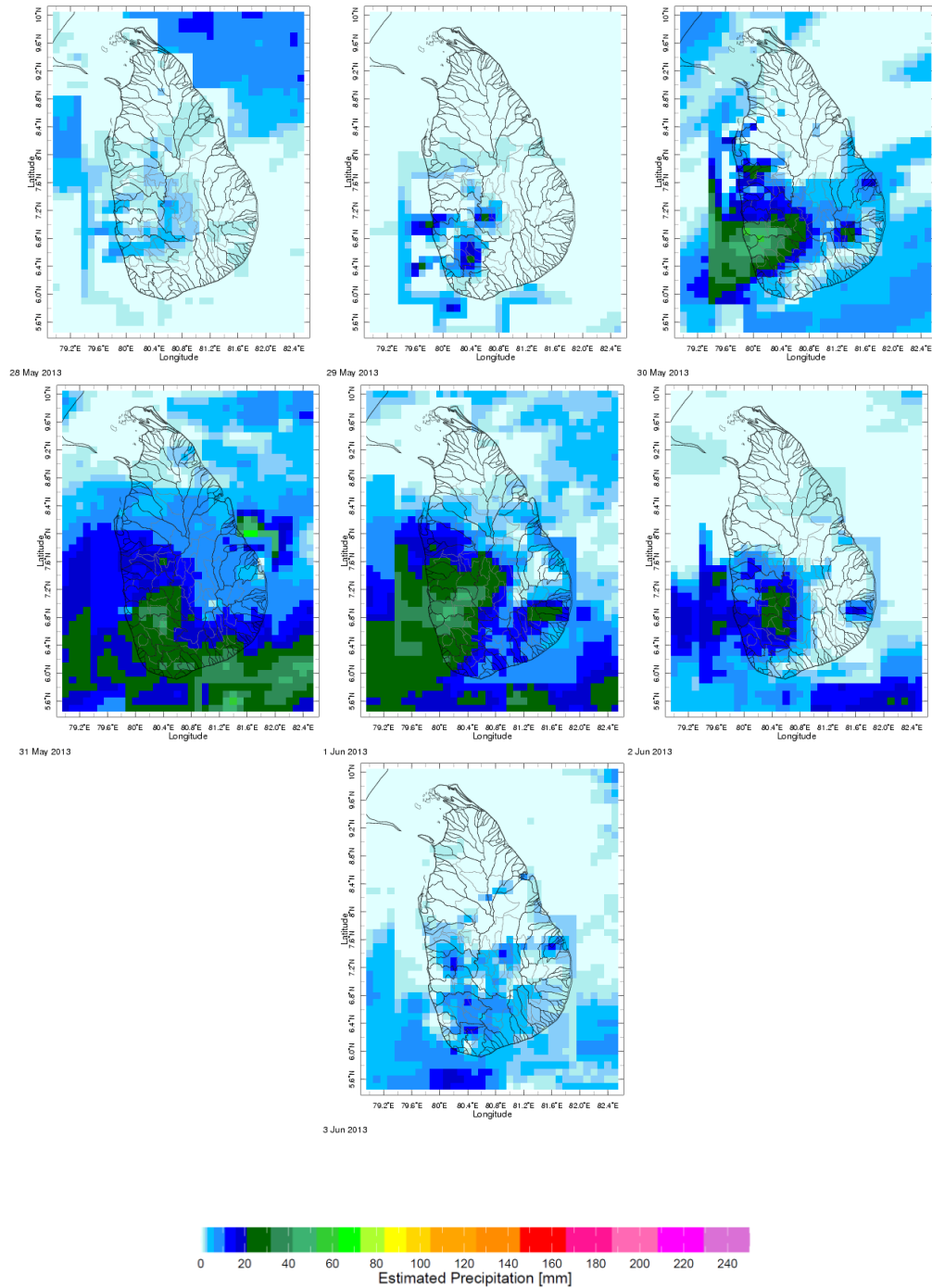
- NCEP GFS Ensemble 1-7 day predictions
- Weekly precipitation forecast (IRI)
- 1 month experimental predictions by Paul Roundy and L. Zubair
- Seasonal Predictions from IRI

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

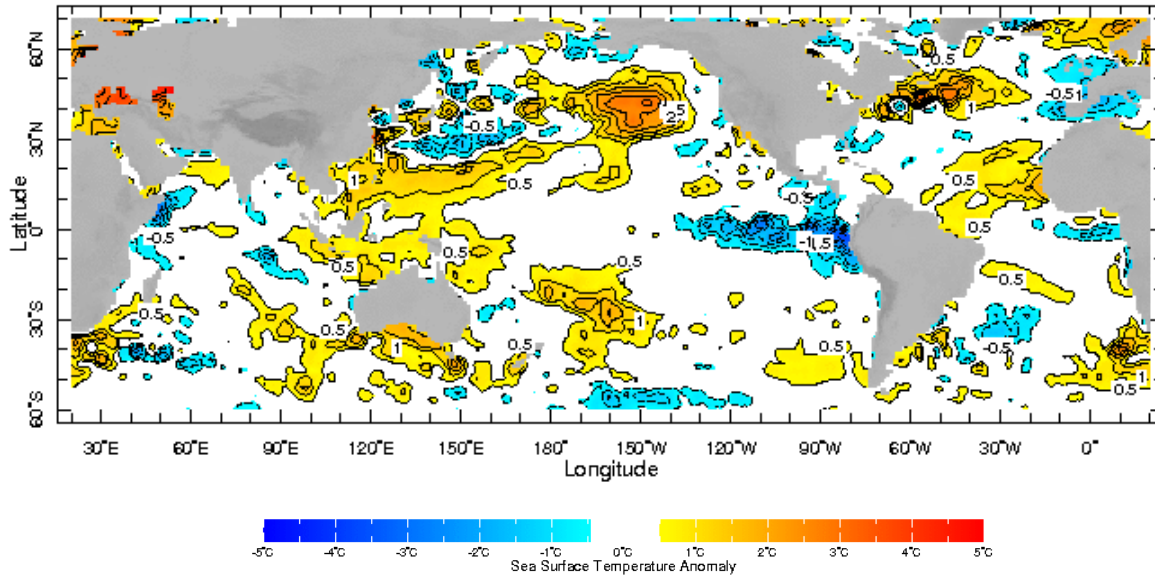
² These interpretations of hydro-meteorological conditions for the Mahaweli basins are provided for the use of the WMS/MASL.

1. Monitoring

a) Daily Satellite Derived Rainfall Estimate Maps: 28th May–3rd June 2013 (Left-Right, Top-Bottom)



b) Weekly Average SST Anomalies

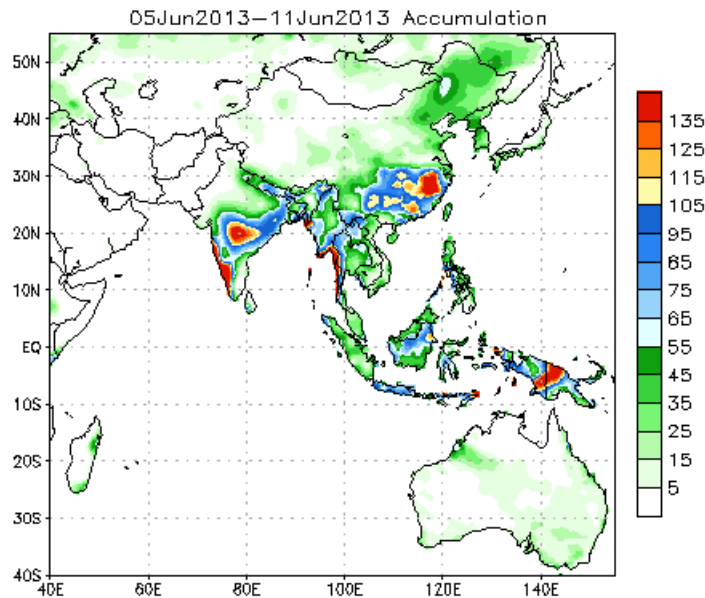


Weekly Average SST Anomalies ($^{\circ}$ C), 26th May-1st June, 2013

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

2. Predictions

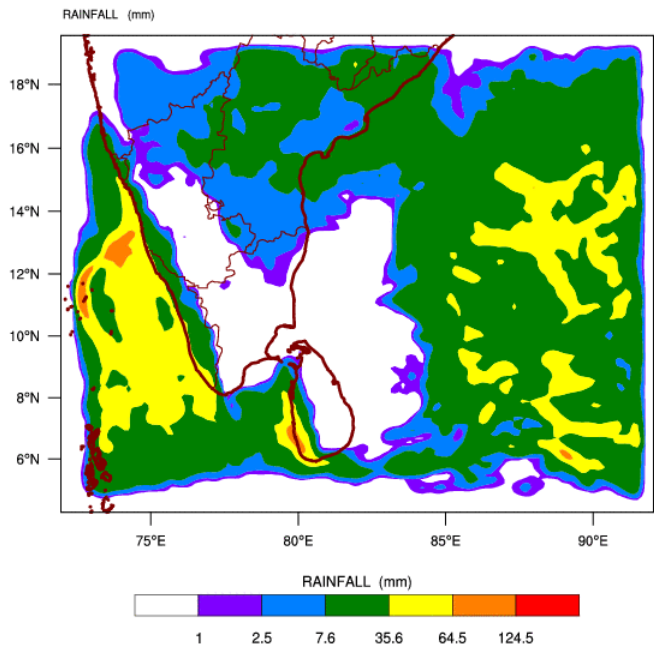
a) NCEP GFS Ensemble 1-7 day predictions, NOAA, Climate Prediction Centre, USA.



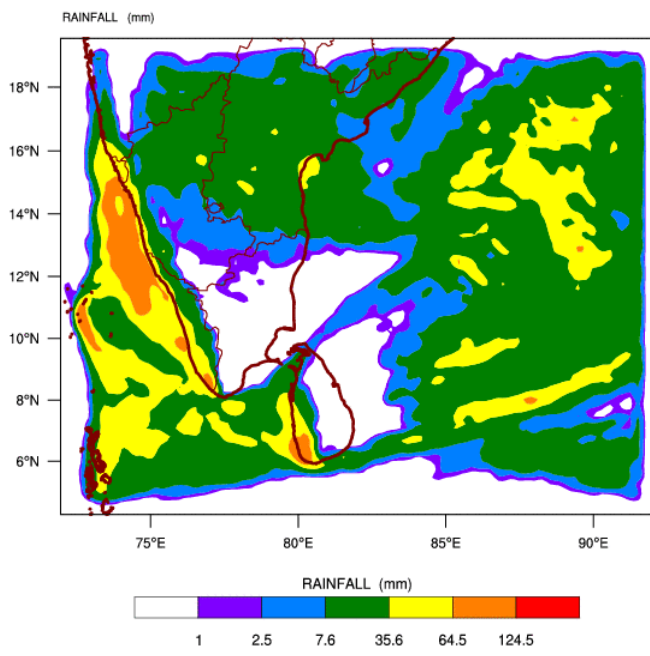
Bias correction based on last 30-day forecast error

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

WRF MODEL FORECAST (48 HR.) RAINFALL(mm)
based on 00 UTC of 04-06-2013 valid for 03 UTC of 06-06-2013



WRF MODEL FORECAST (72 HR.) RAINFALL(mm)
based on 00 UTC of 04-06-2013 valid for 03 UTC of 07-06-2013

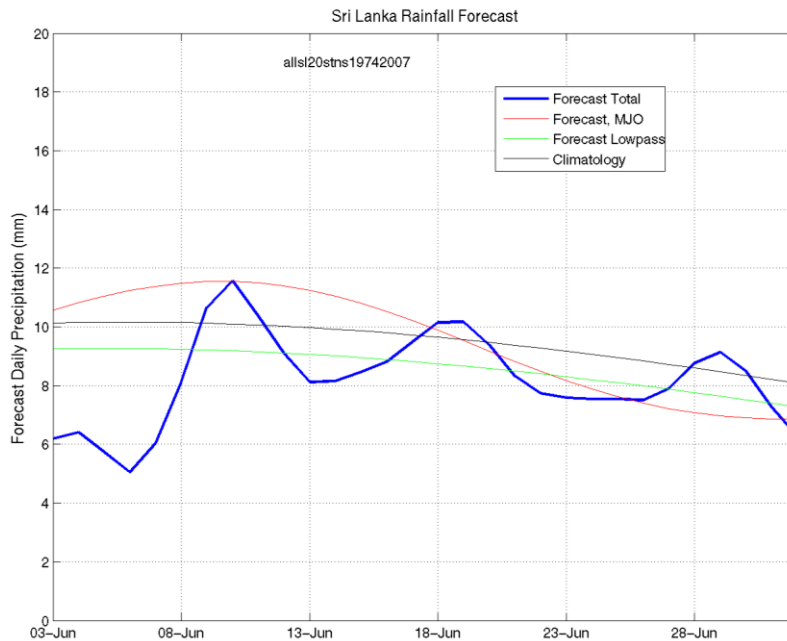


c) Weekly Precipitation Forecast is not available for this week (Precipitation Forecast in Context Map Tool, IRI)

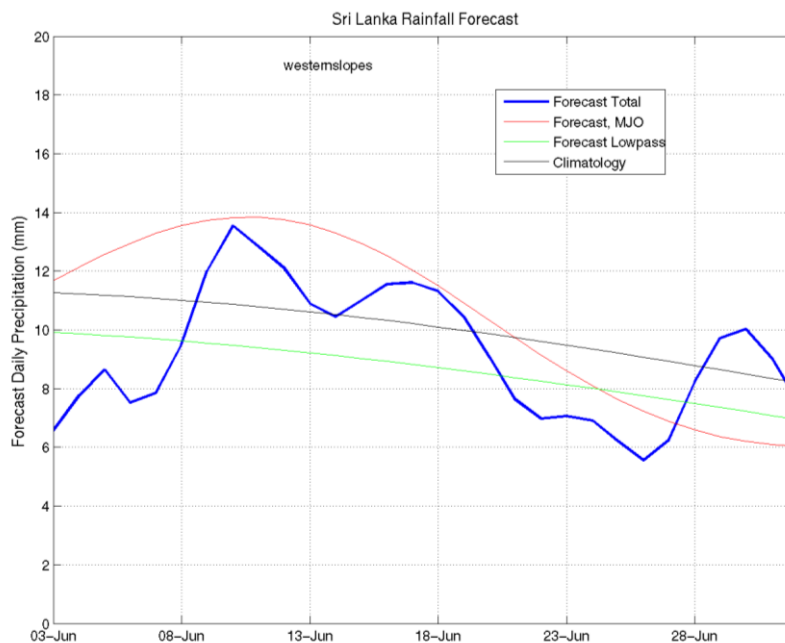
d) 1 month experimental predictions by Paul Roundy and L. Zubair

Predictions based on observed cloud cover and atmospheric waves. Issued 5th June, 2013

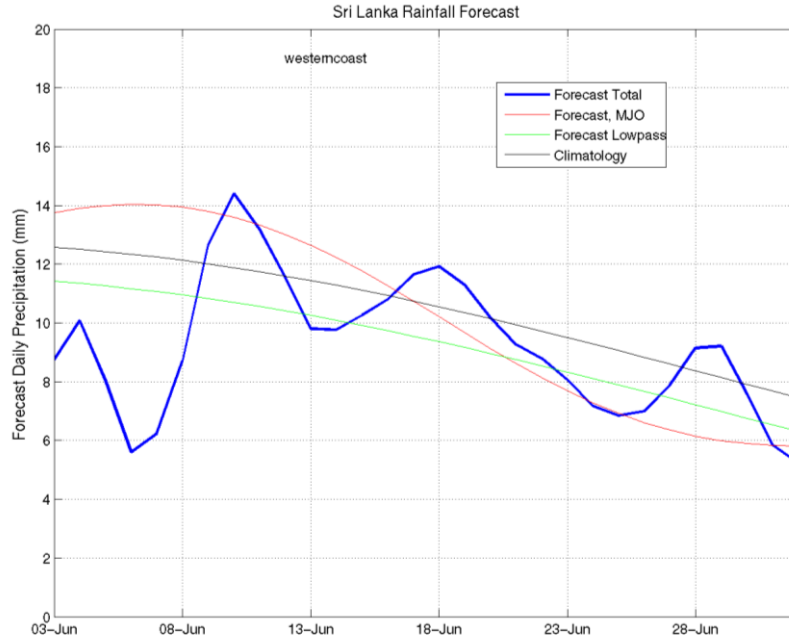
All Sri Lanka (Rainfall Scale from 0-20 mm/day)



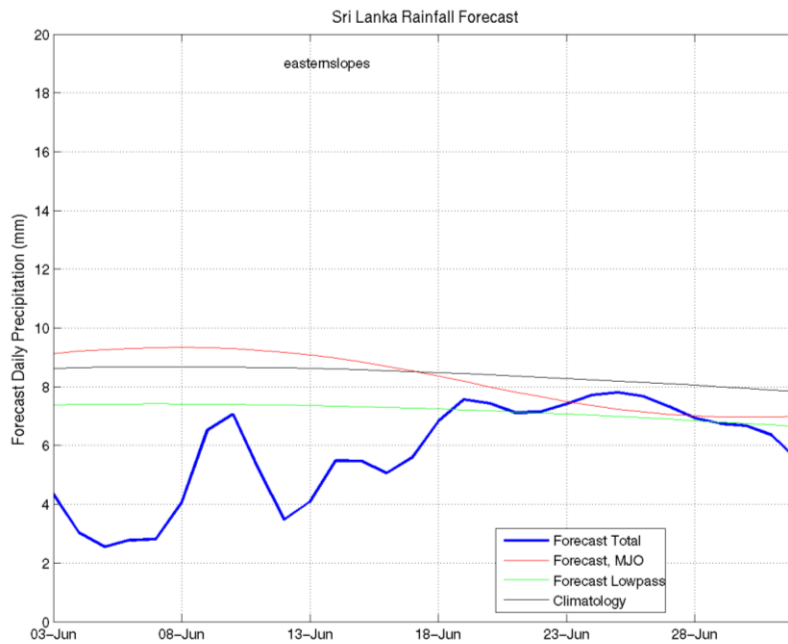
Western Slopes (Rainfall Scale from 0-20 mm/day)



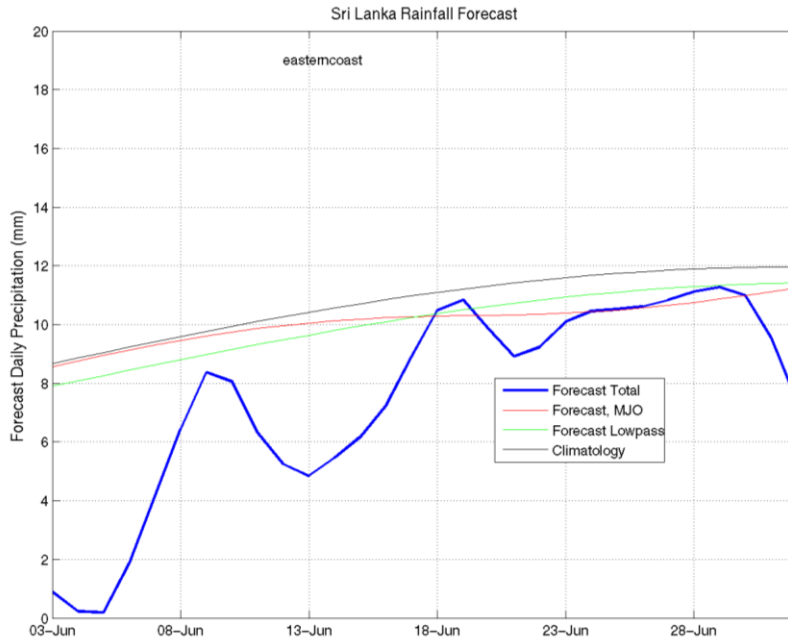
Western Coast (Rainfall Scale from 0-20 mm/day)



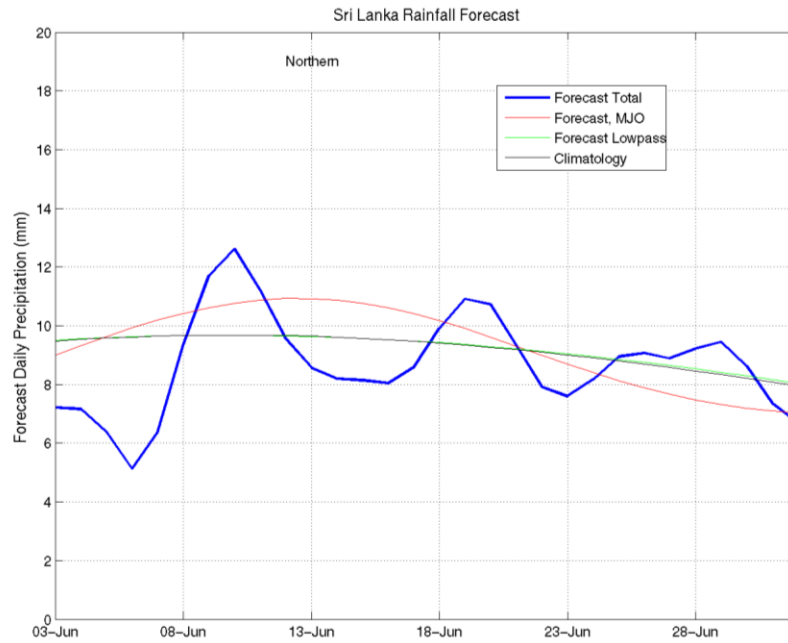
Eastern Slopes (Rainfall Scale- from 0-20 mm/day)



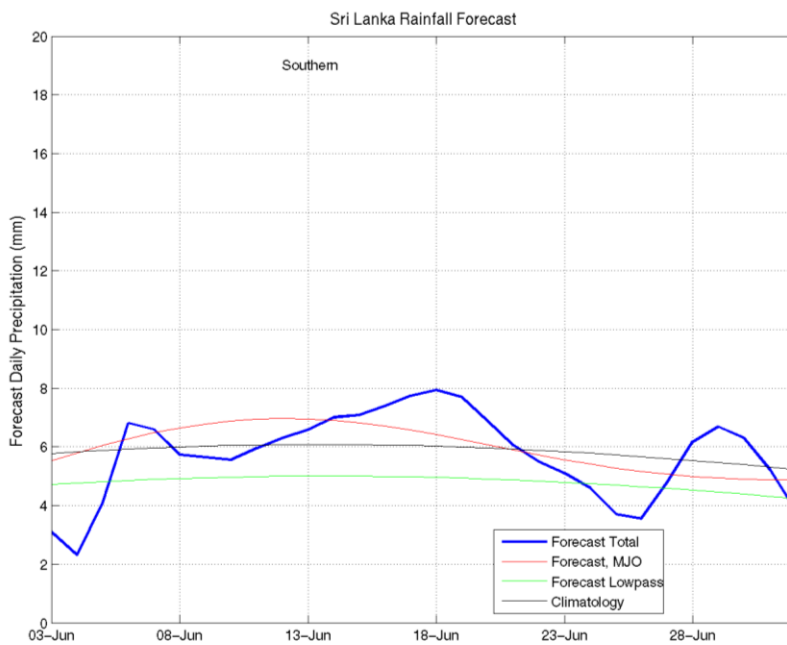
Eastern Coast (Rainfall Scale- from 0-20 mm/day)



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

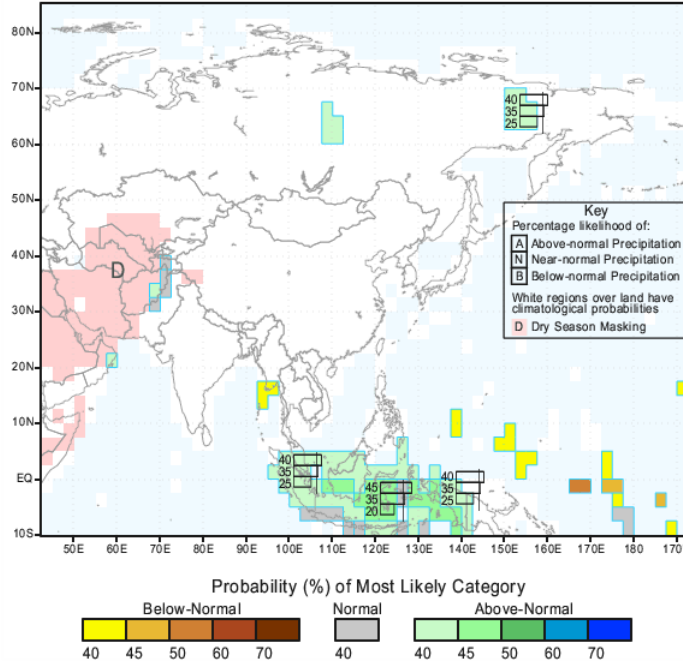


Southern Region (Rainfall Scale- from 0-20 mm/day)



e) Seasonal Rainfall and Temperature Predictions from IRI

IRI Multi-Model Probability Forecast for Precipitation
for June-July-August 2013, Issued May 2013



IRI Multi-Model Probability Forecast for Temperature
for June-July-August 2013, Issued May 2013

