

Experimental Climate Monitoring and Prediction

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FECT BLOG

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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 Indian Ocean around Sri Lanka particular to the Bay of Bengal continues to have a cold anomaly up to -0.5°C.

Highlights

Monitoring and Predictions:

For the most of the parts in Sri Lanka, existing rainfall shall decrease till 24th and it shall increase thereafter till the end of the May. However, there shall not be any significant rainfall events for the entire country, except for the Western coasts. For the western coasts, on 24th there shall be significant rainfall trough. Southwestern regions shall receive 5-55 mm of rainfall for the next week. However, there shall be 60-70% probability for temperature to be above normal in the country during June to August 2013.

Summary

Monitoring

Weekly Monitoring: Rainfall ranged between 5-70 mm during 15th-21st May 2013. Maximum rainfall was observed on the 19th May in Colombo district. On 16th entire country received least amount of rainfall compared to rest of the days in the week.

Predictions

7-day prediction: South-western regions shall receive 5-55 mm of rainfall during 22nd -28th May 2013.

IMD WRF Model Forecast & IRI forecast: For 24th and 25th of May 2013, IMD WRF model predicts less than 1 mm of rainfall for the northern half of the island. For the both days rainfall is not predicted for the southern half of the island. NOAA model predicts slight rainfall (less than 20 mm) for the entire country during 22nd -27th May 2013.

30 Days Prediction: Overall- Existing rainfall condition shall decrease till 24th and thereafter it shall increase till 29th. For the prediction period (end of the May), there shall not be any significant rainfall events. **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. However, on 24th there shall be significant rainfall trough in this region. **Eastern slopes** – The rainfall pattern existing in the entire country shall be present in this region. **Eastern Coast** – The rainfall pattern existing in the entire country shall be present in this region. **Northern region-** The rainfall pattern existing in the entire country shall be present in this region. **Southern Region-** The existing rainfall pattern shall increase gradually till the end of the prediction period.

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

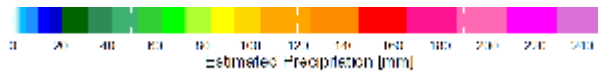
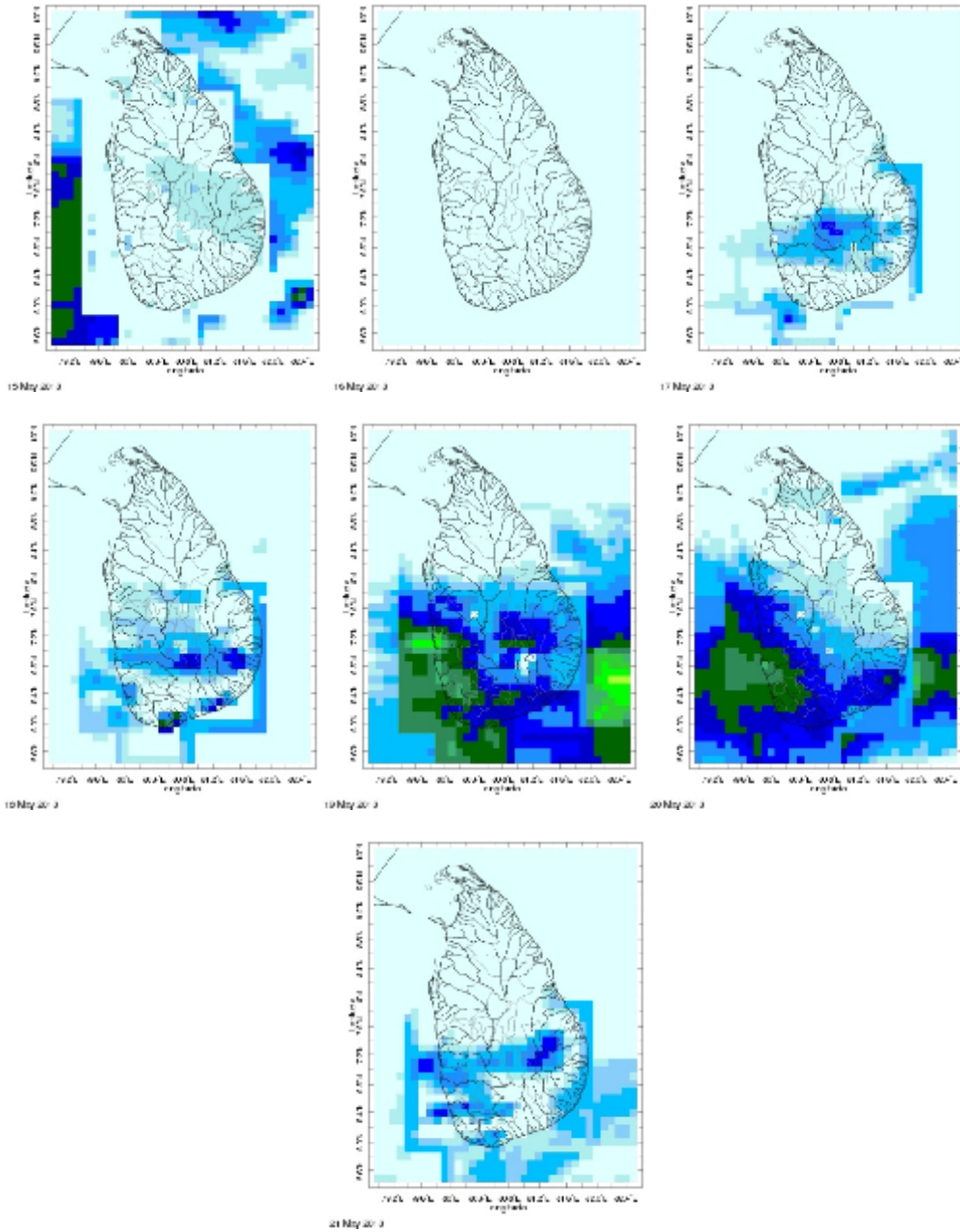
- NCEP GFS Ensemble 1-7 day predictions
- Weekly precipitation forecast (IRI)
- 1 month experimental predictions by Paul Roundy and L. Zubair
- Seasonal Predictions from IRI

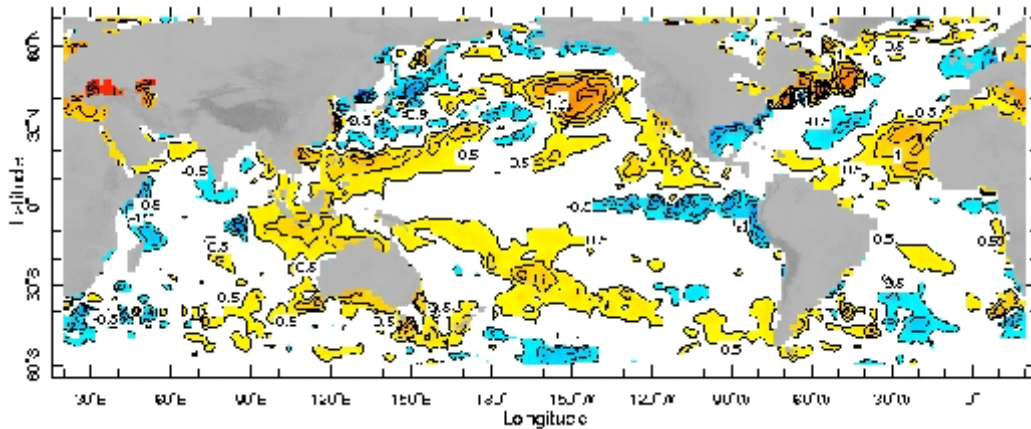
¹ International Research Institute for Climate and Society, Earth Institute at Columbia University, New York.

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: 15th May– 21th May 2013 (Left-Right, Top-Bottom)



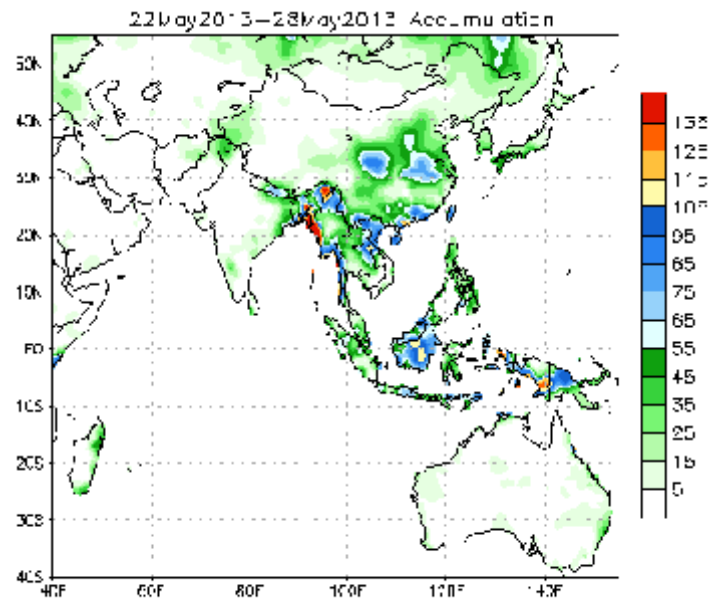


Weekly Average SST Anomalies ($^{\circ}$ C), 12th-18th May, 2013

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

2. Predictions

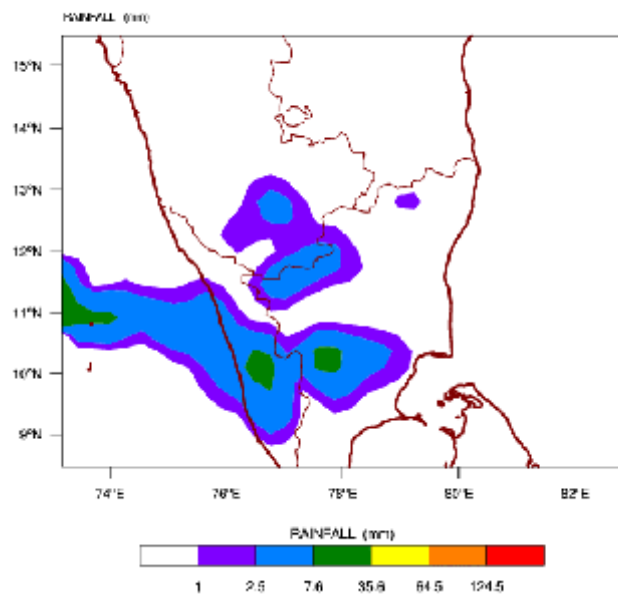
a) NCEP GFS Ensemble 1-7 day predictions, NOAA, Climate Prediction Centre, USA.



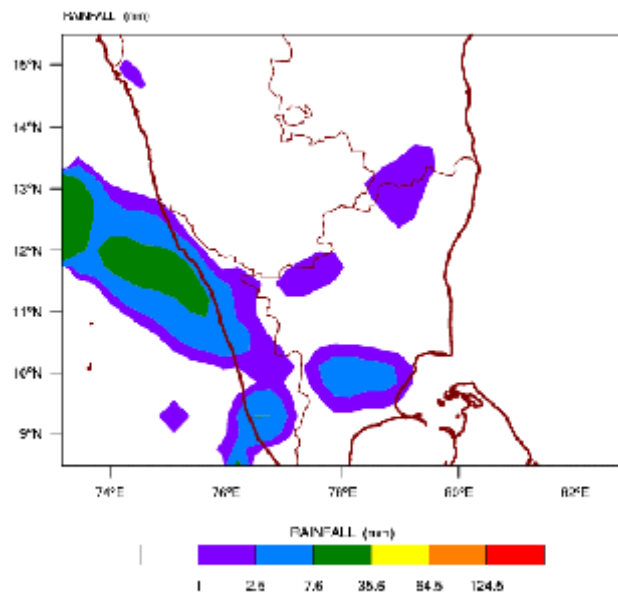
Source – NOAA Climate Prediction Center

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

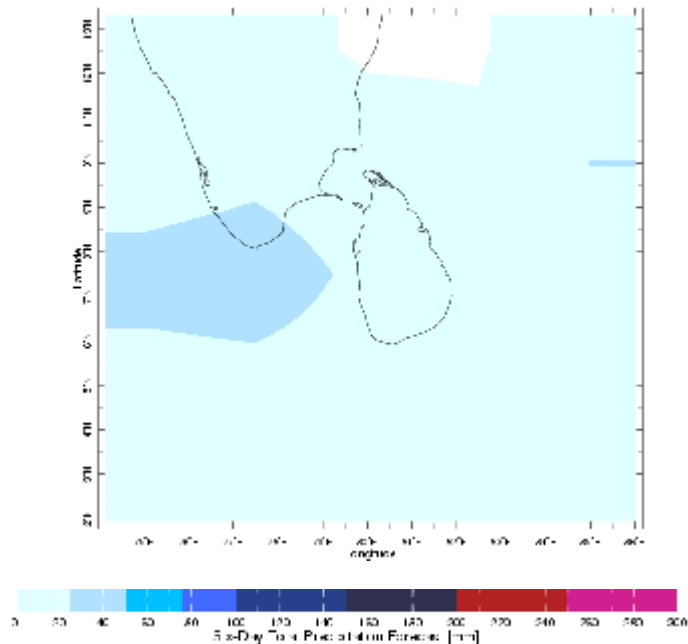
WRF MODEL FORECAST (24 HR.) RAINFALL(mm)
based on 00 UTC of 23-05-2013 valid for 03 UTC of 24-05-2013



WRF MODEL FORECAST (48 HR.) RAINFALL(mm)
based on 00 UTC of 23-05-2013 valid for 03 UTC of 25-05-2013



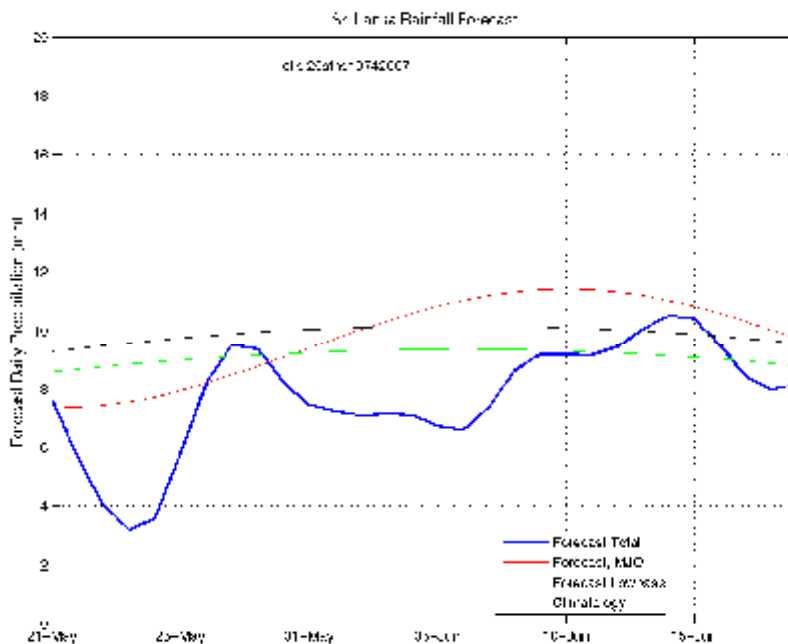
c) Weekly Precipitation Forecast for 22nd -27th May 2013 (Precipitation Forecast in Context Map Tool, IRI)



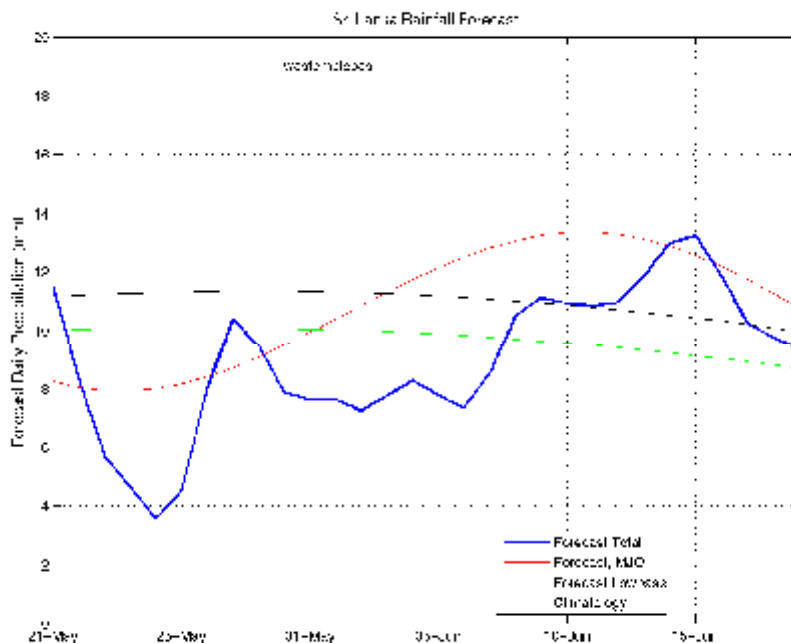
d) 1 month experimental predictions by Paul Roundy and L. Zubair

Predictions based on observed cloud cover and atmospheric waves. Issued 22nd May, 2013

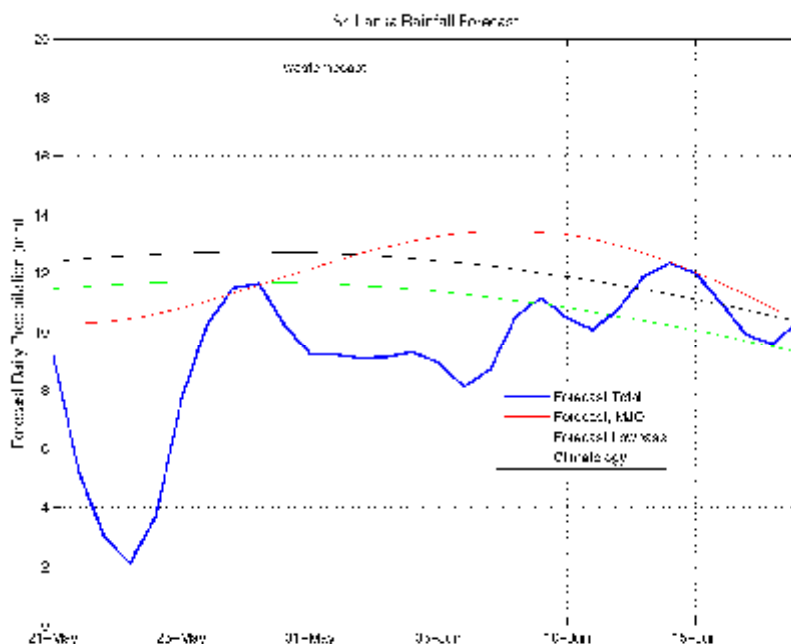
All Sri Lanka (Rainfall Scale from 0-20 mm/day)



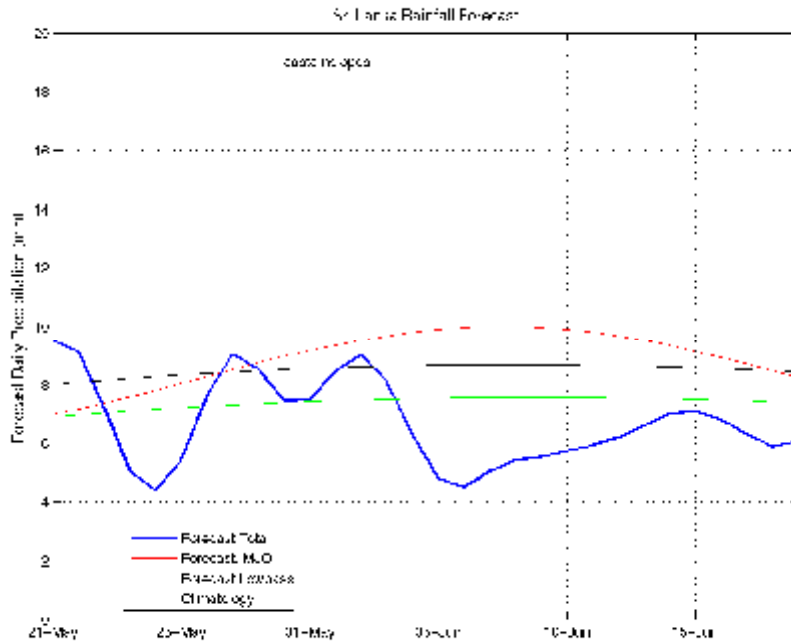
Western Slopes (Rainfall Scale from 0-20 mm/day)



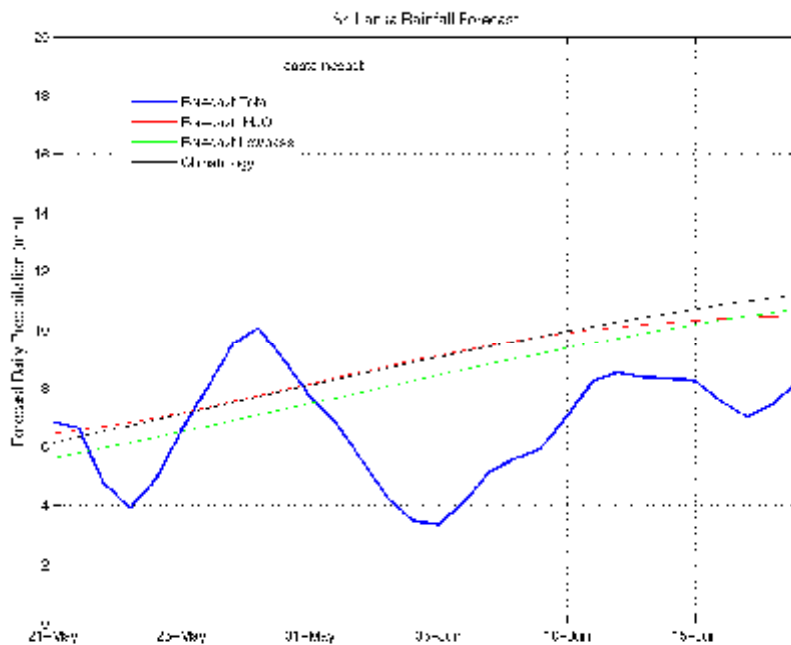
Western Coast (Rainfall Scale from 0-20 mm/day)



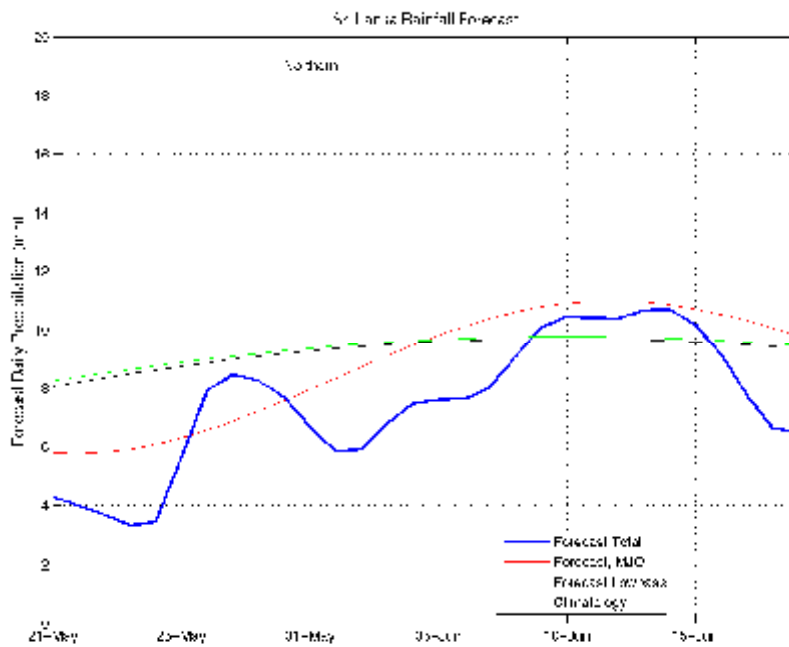
Eastern Slopes (Rainfall Scale- from 0-20 mm/day)



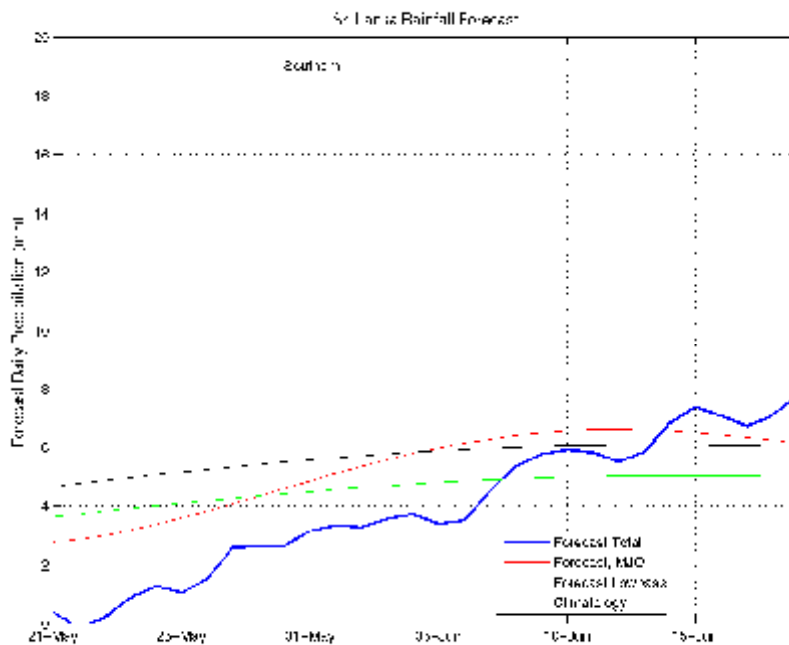
Eastern Coast (Rainfall Scale- from 0-20 mm/day)



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

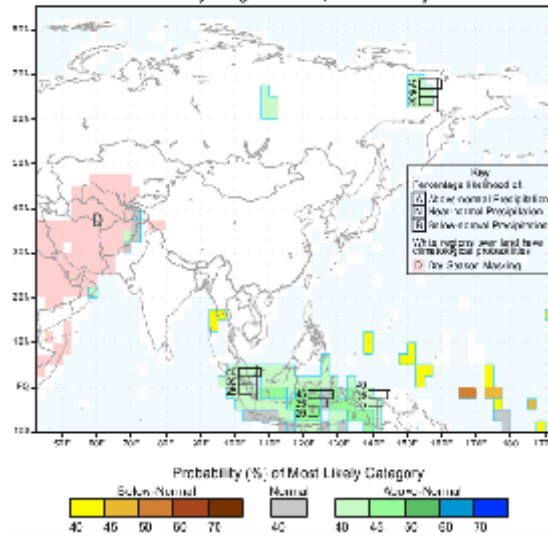


Southern Region (Rainfall Scale- from 0-20 mm/day)



e) Seasonal Rainfall and Temperature Predictions from IRI

IRI Multi-Mode 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

