

Experimental Climate Monitoring and Prediction

(Prepared for the Water Management Secretariat of the Mahaweli Authority)

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(FECT and IRI)

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FECT BLOG

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ENSO Update

12 September
2011

For the October - December season currently in progress, there is approximately 78% of probability of continuing La-Nina conditions, a 22% of probability for returning to neutral conditions, and virtually no chance to development of El-Nino conditions. Weak to moderate La-Nina conditions are the most likely scenario for the remainder of 2011, into the first couple of months of 2012.

(Text Courtesy IRI)

Summary²

Weekly Monitoring: During the previous week (02nd November to 09th November, 2011) rainfall ranged between 0-50 mm. Scattered rainfall was observed from 2nd to 7th. Particularly Northern, Western and Central parts received considerable rainfall during the week.

Monthly Monitoring: During October, Above-average rainfall was experienced particularly for the Upper part of the Mahaweli basin and Eastern Parts of the Island while the Western, North Western and South Western regions appeared to be below Average.

7 Day Prediction: For the coming week the NCEP Global Forecast System predicts an accumulated rainfall of 15- 35 mm particularly for the Northern, North-Eastern, and Eastern regions of Sri Lanka.

1 Month Prediction: An increasing trend of rainfall with fluctuations will be observed till the 29th November followed by a slow decrease till the end of the December 1st week. After 11th there will be an increase of rainfall for two days. Then after it will rapidly decrease till the 16th. It will tend to increase rapidly till the 22nd and continue slowly up to 29th November. High rainfall will be experienced after the 20th. Eastern slopes also show an increasing trend of rainfall with few fluctuations after the 14th till the 2nd December followed by a gradual decrease. Decreasing trend of rainfall will be observed for the eastern coasts.

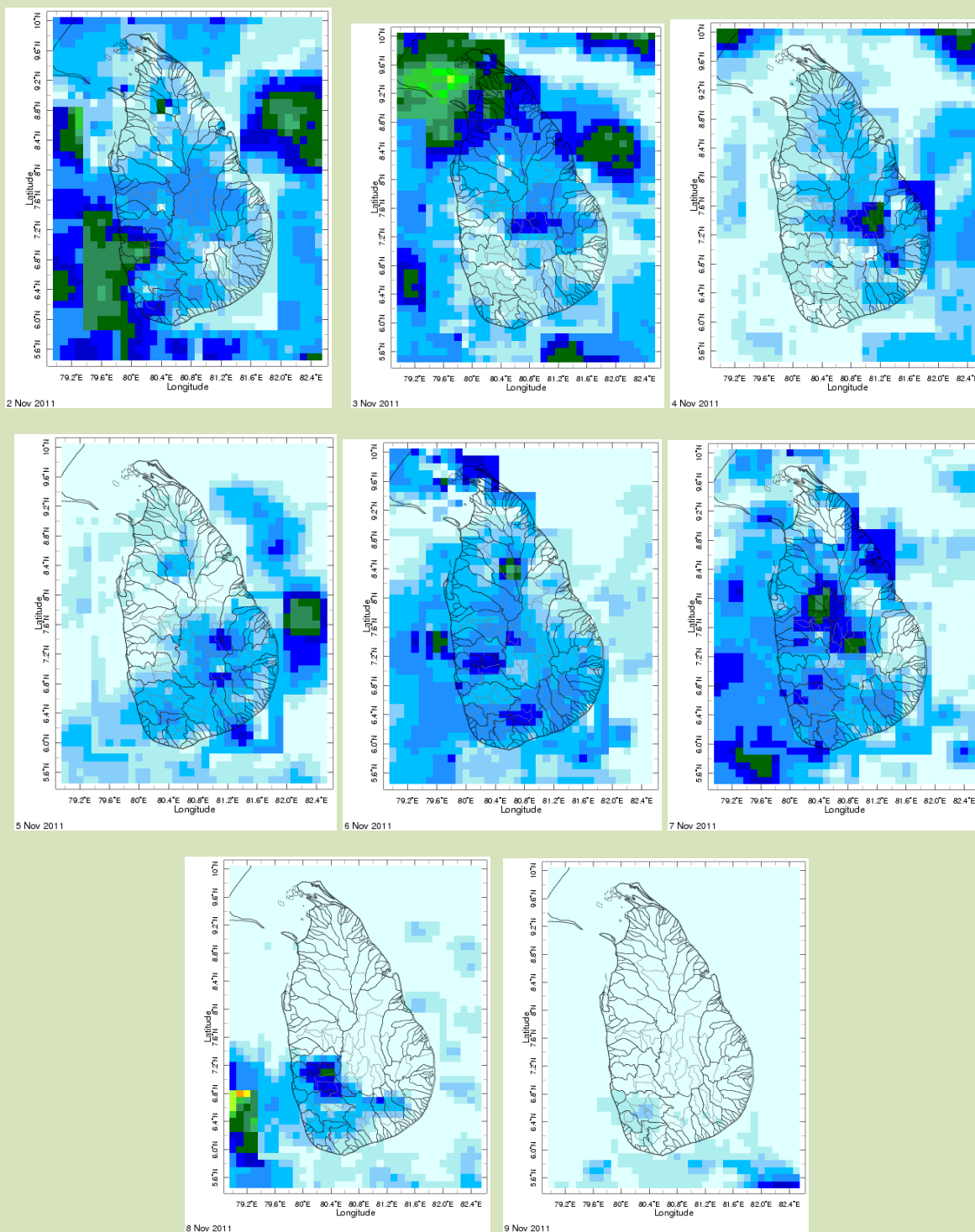
Seasonal Prediction: As per IRI Multi Model Probability Forecast for November 2011 to January 2012, issued in October 2011, there is 40% probability for temperature to be normal for entire Sri Lanka, while the precipitation is likely to be climatological.

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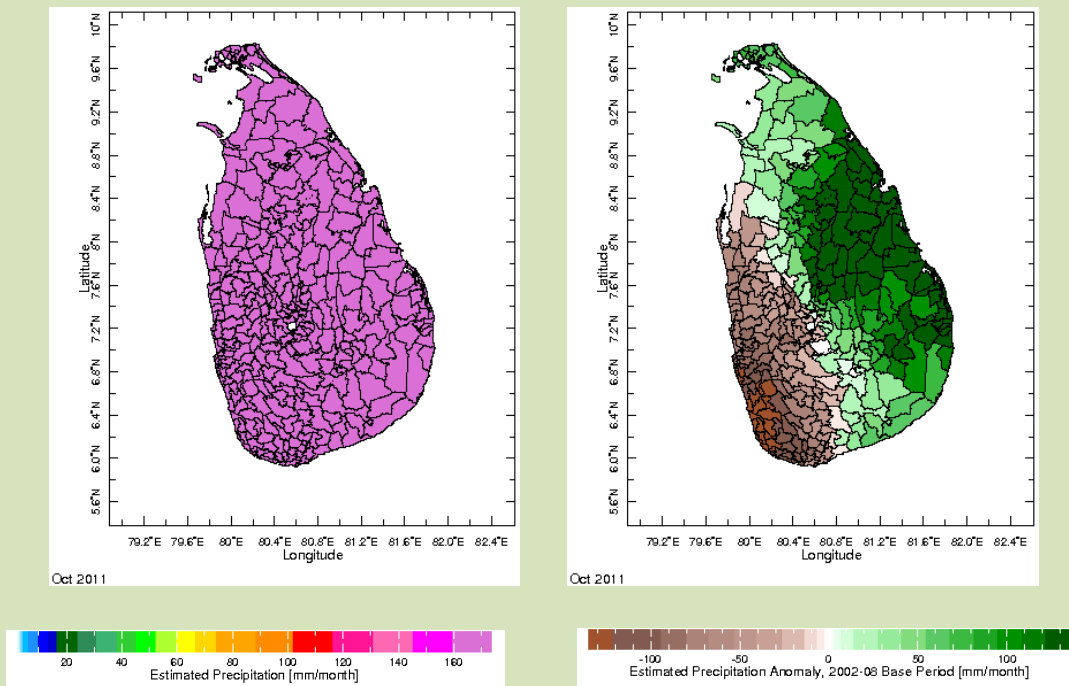
1. Rainfall Monitoring
 - a. Daily Satellite Derived Rain fall Estimates
 - b. Monthly Rain fall Estimates
 - c. Decadal (10 Day) Satellite Derived Rainfall Estimates
 - d. Weekly Average SST Anomalies
2. Rainfall Predictions
 - a. NCEP GFS Ensemble 1-7 day predictions, NOAA, CPC,USA
 - b. 1 month experimental predictions by Paul Roundy and L. Zubair
 - c. Seasonal Predictions from IRI

1. Rainfall Monitoring

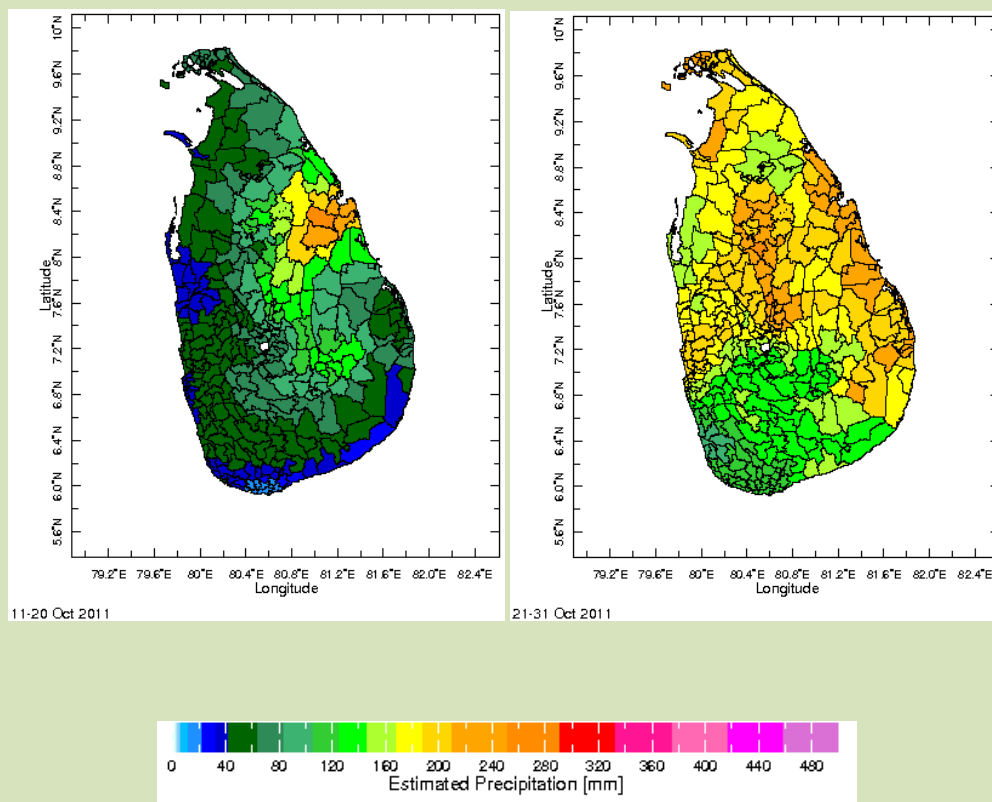
a) Daily Satellite Derived Rainfall Estimate Maps: 2nd November – 9th November, 2011 (Left-Right, Top-Bottom)



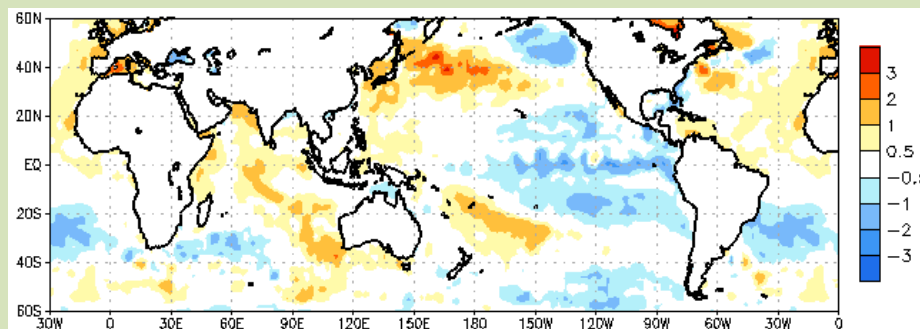
b) Monthly Satellite Derived Rain fall Estimates for October 2011 (Total – Left and Anomaly -Right)



c) Dekadal (10 Day) Satellite Derived Rainfall Estimates (October 11-20, 2011 and October 21-30, 2011)



d) Weekly Average SST Anomalies

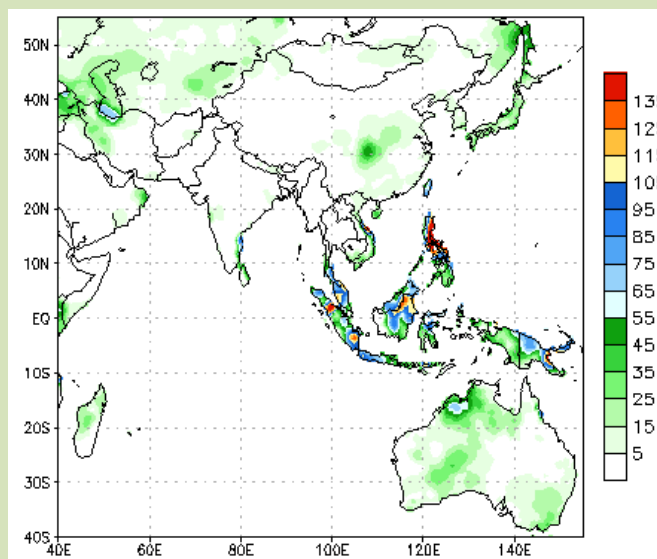


Weekly Average SST Anomalies ($^{\circ}\text{C}$), 2nd November, 2011

Data Source: NCEP Global Sea Surface Temperature Analysis (Climatology 1979-1995)

2. Predictions

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



During next week, an accumulated rainfall of 15- 35 mm is predicted for the Northern, North-Eastern, Eastern regions of Sri Lanka.

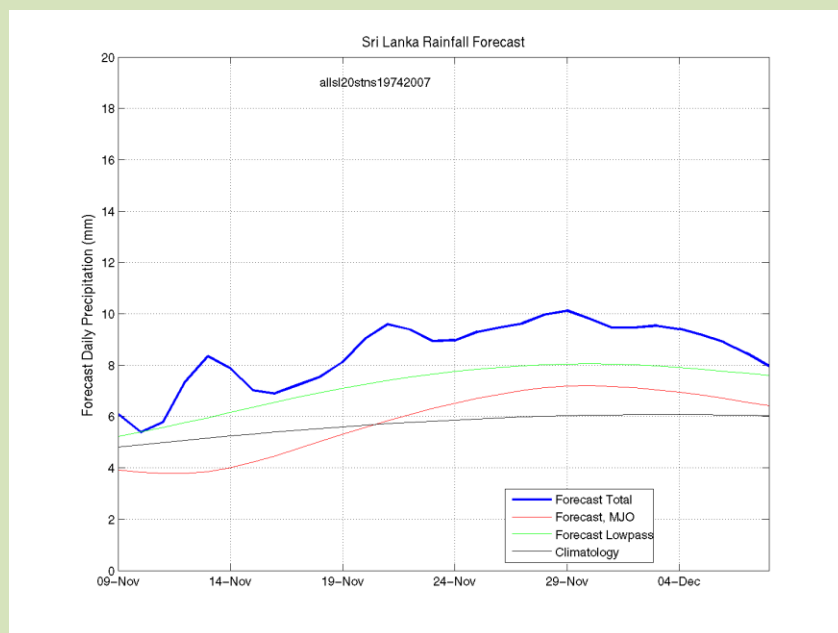
Source – NOAA Climate Prediction Center

Map: Predicted accumulation of rainfall. (10th November – 16th November, 2011 week)

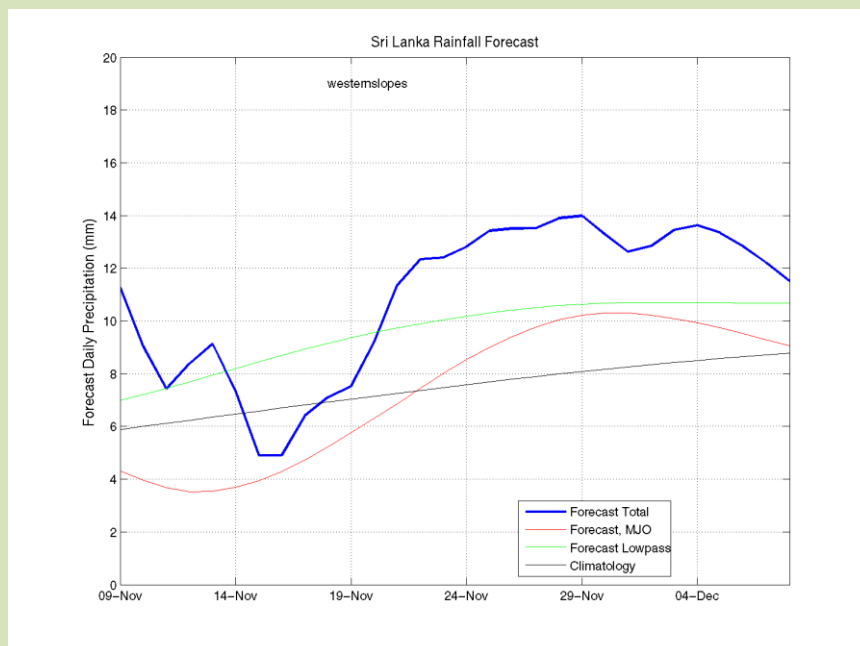
c) 1 month experimental predictions by Paul Roundy and L. Zubair

Predictions based on observed cloud cover and atmospheric waves. Issued 10th November, 2011

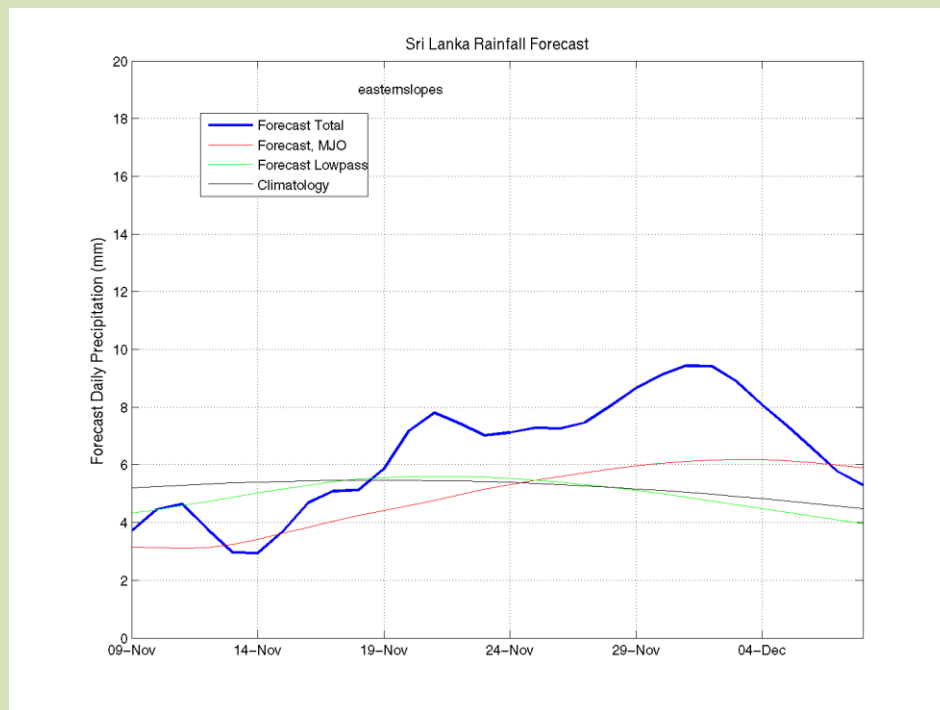
All Sri Lanka (Rainfall Scale from 0-20 mm/day)



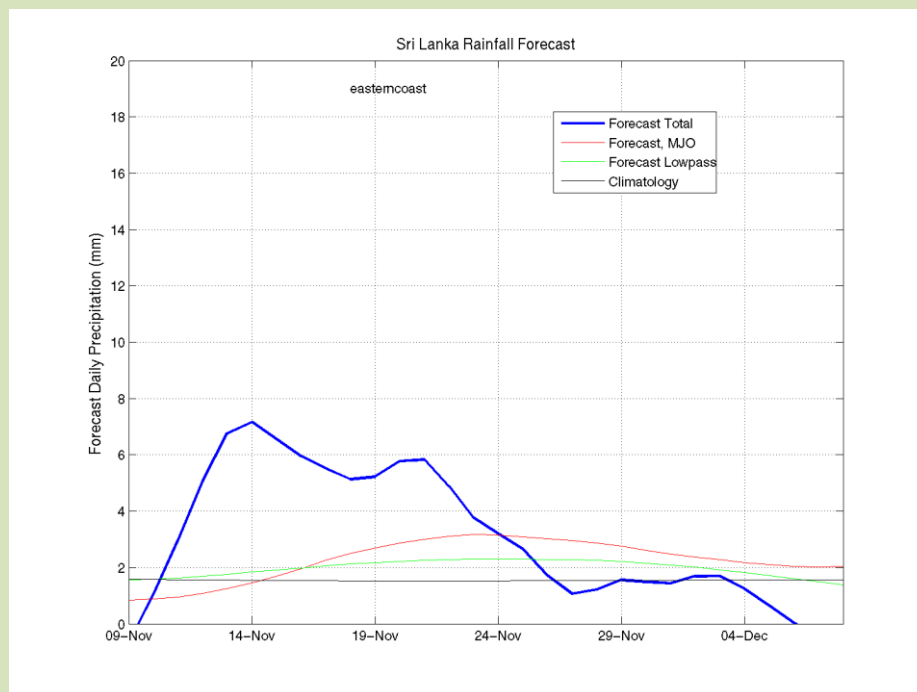
Western Slopes (Rainfall Scale from 0-20 mm/day)



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



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



d) Seasonal Rainfall and Temperature Predictions from IRI

