FECT Foundation for Environment Climate and Technology
c/o, Maintenance Office, Mahaweli Authority, Digana Village, Rajawella, Sri Lanka.
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Experimental Climate Monitoring and Prediction

(Prepared for Water Management Secretariat, Mahaweli Authority)

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18 August 2011

FECT BLOG

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ENSO Update

21 July 2011

Since the ending of the moderate to strong La Niña episode in early May 2011, neutral ENSO conditions have prevailed. For the July-September season currently in progress, there is an approximately 10% probability for returning to La Niña conditions, an 82% probability for remaining in neutral conditions, and an 8% probability for the development of El Niño conditions. Although neutral conditions are the most likely scenario throughout the remainder of 2011, development of El Niño conditions or, particularly, the re-emergence of La Niña conditions, cannot be ruled out.

(Text Courtesy IRI)

Summary[2]

***Weekly Monitoring*:** During the previous week (10th to 15th August, 2011) rainfall ranged from 0-70 mm. Considerable rainfall was experienced on the 12th and the 15th August for the whole island. However for the Southern regions rainfall ranged between 0-5 mm for the mentioned week.

***Monthly Monitoring*:** During July, above average rainfall by up to 50 mm was experienced for the Kalutara, Puttalam and Trincomalee regions while there was below-average rainfall elsewhere with deficits up to 80 mm in the Central Province and Matara District.

***7 Day Prediction*:** For the coming week the NCEP Global Forecast System predicts accumulated rainfall between 35-45 mm for the entire island.

***1 Month Prediction*:** From the 17th August a rapid decrease of rainfall will be observed till the 20th. Thereafter rainfall will increase with minor fluctuations until first week of September. Nearly the same pattern will be observed in the Western slopes but high rainfall will observe on 5th September. However for the eastern slope there will be significant decrease in the amount of rainfall till 19th August. Thereon rainfall will increase till 21st and shall show more or less constant rainfall till September in which daily rainfall will range between 4-6 mm.

***Seasonal Prediction*:** As per IRI Multi Model Probability Forecast for August 2011 to October 2011, issued in July 2011, there is 40% probability for temperature to be above normal while the precipitation is likely to be climatological.

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International Research Institute for Climate and Society.

[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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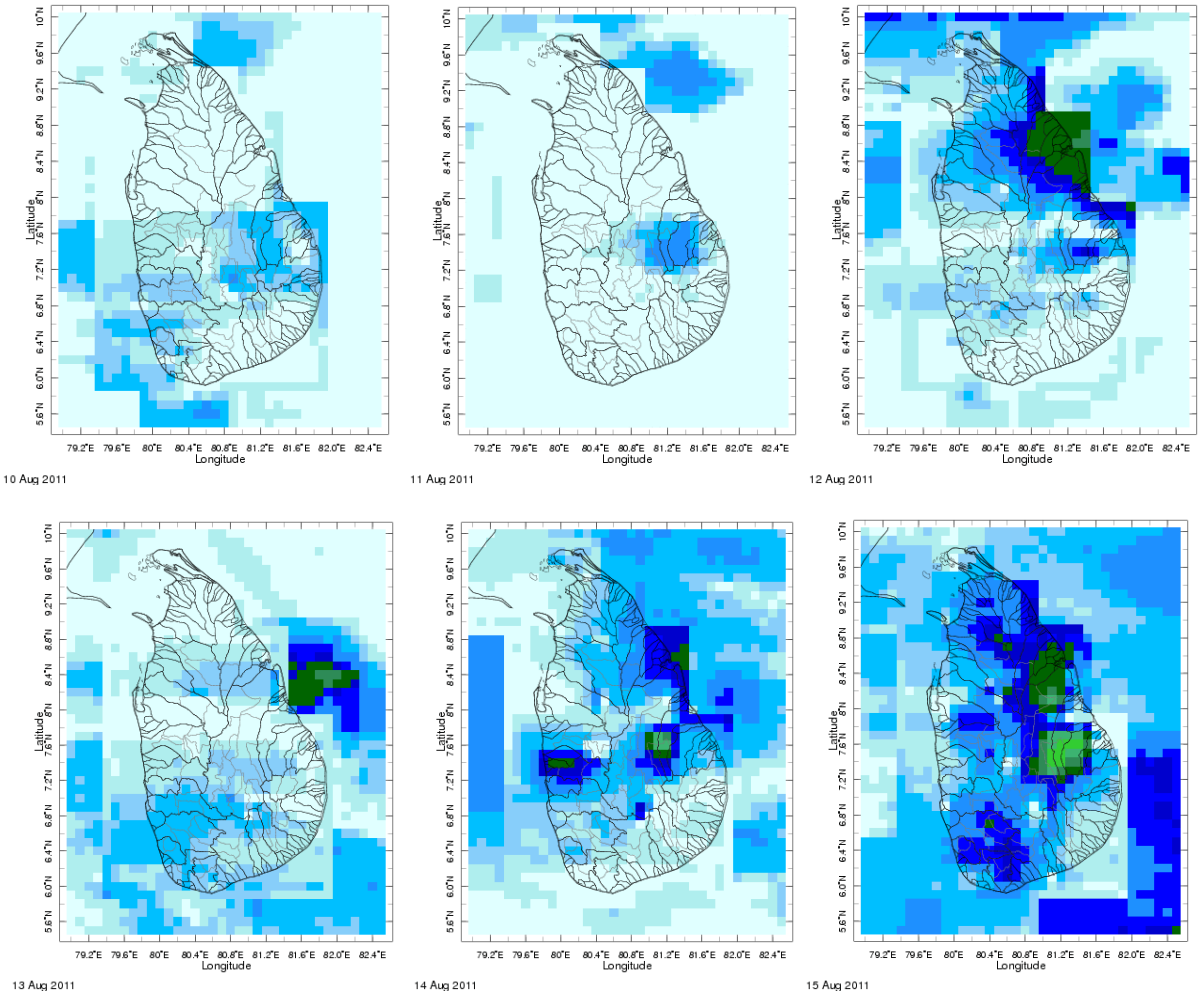
1. Rainfall Monitoring

a) Daily Satellite Derived Rainfall Estimate Maps: *10th August – 15th August, 2011 (Left-Right, Top-Bottom)*



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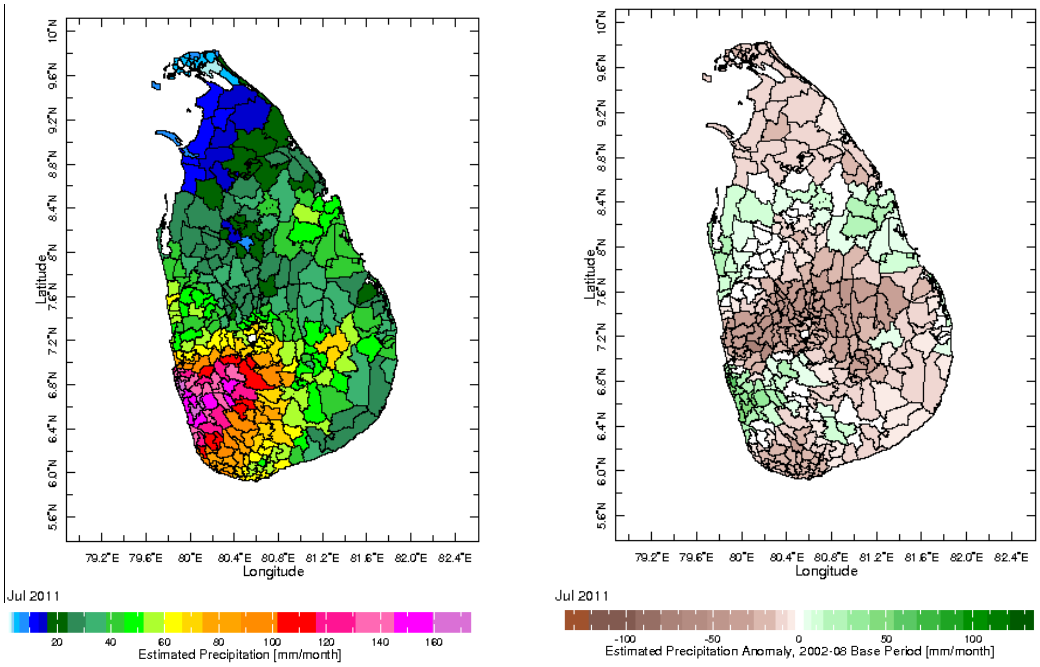
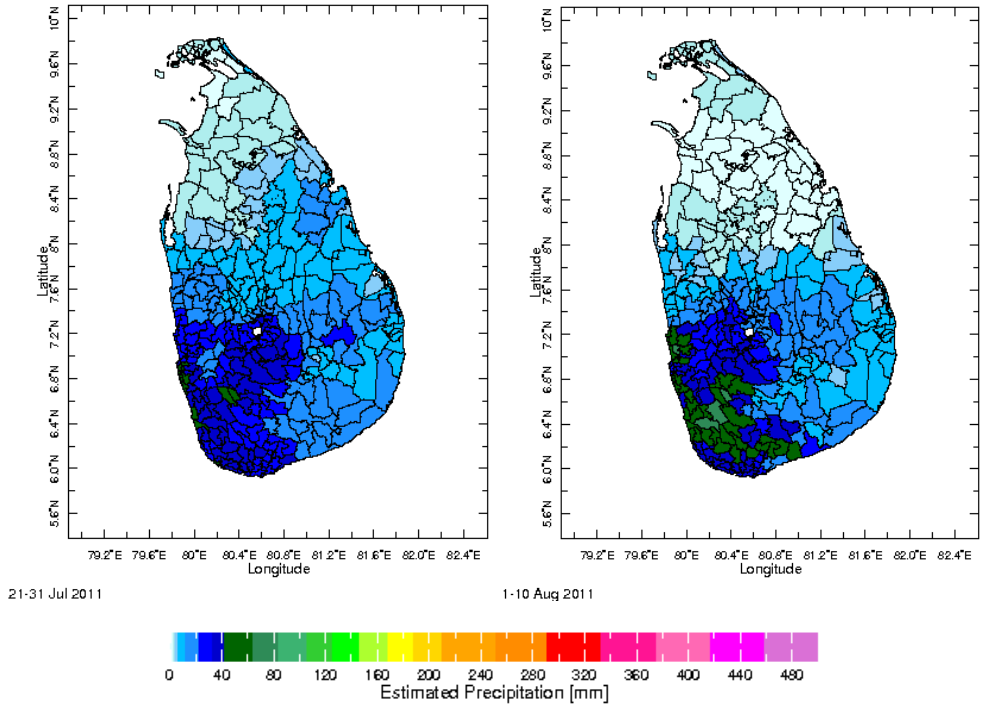
b) Monthly Satellite Derived Rain fall Estimates for July 2011 (Total – Left and Anomaly -Right)



c) Dekadal (10 Day) Satellite Derived Rainfall Estimates (July 21-31 and August 01-10, 2011)



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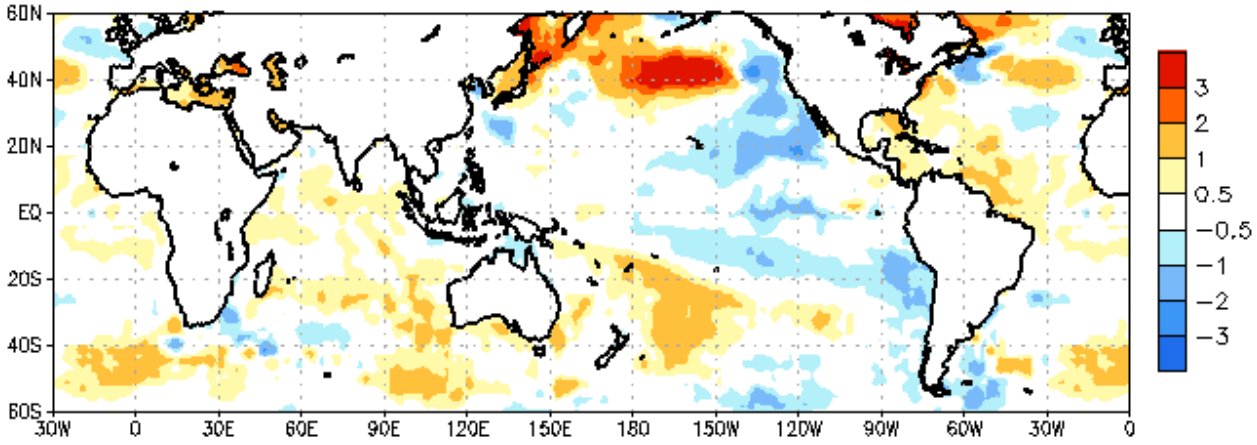
d) Weekly Average SST Anomalies

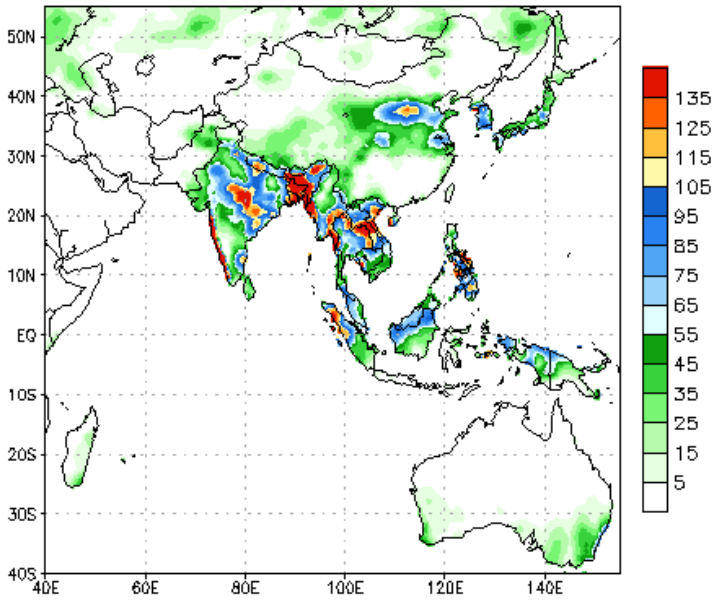


Weekly Average SST Anomalies (^{0}C), 10th August, 2011

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 between 35- 45 mm is predicted for the whole island.

Source – NOAA Climate Prediction Center

Map: Predicted accumulation of rainfall. (16th August- 22nd August, 2011 week)

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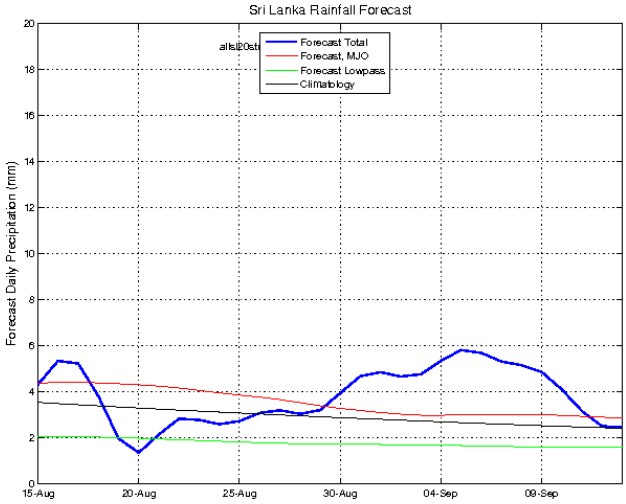
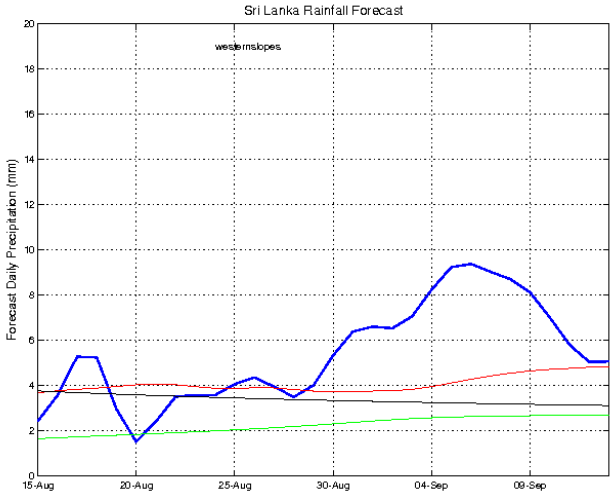
c) 1 month experimental predictions by Paul Roundy and L. Zubair

Predictions based on observed cloud cover and atmospheric waves. Issued 17th August, 2011

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



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



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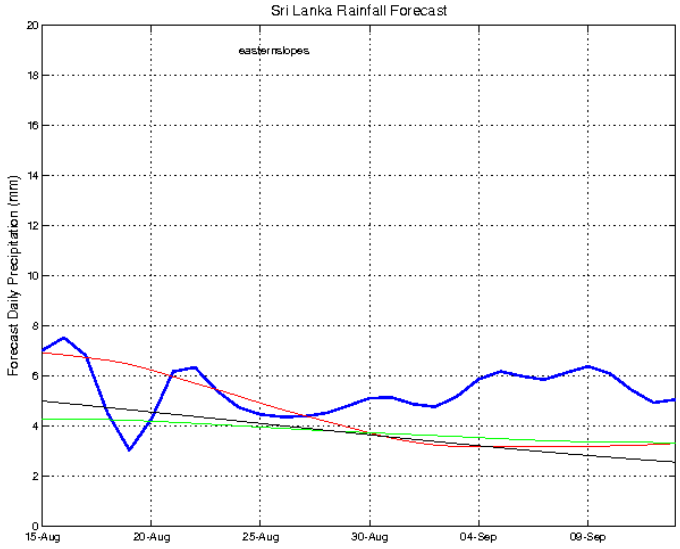
Eastern Slopes (Rainfall Scale- from 0-20 mm/day)



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d) Seasonal Rainfall and Temperature Predictions from IRI