FECT Foundation for Environment Climate and Technology
c/o, Maintenance Office, Mahaweli Authority, Digana Village, Rajawella, Sri Lanka.
Phone (+94) 81-2376746, 4922992 E-mail climate@sltnet.lk Web Site http://www.climate.lk

Experimental Climate Monitoring and Prediction

(Prepared for Water Management Secretariat, Mahaweli Authority)

by: Sewwandhi Chandrasekara, Sanjaya Ratnayake, Madhura Weerasekera, Zeenas Yahiya, Lareef Zubair and Michael Bell (FECT and IRI)

23 June 2011

FECT BLOG

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ENSO Update

16 June 2011

Since the ending of the moderate to strong La Niña episode in early May, neutral conditions have prevailed. For the June-August season currently in progress, there is an approximately 9% probability for returning to La Niña conditions, a 84% probability for remaining in neutral conditions, and a 7% probability for the development of El Niño conditions. Neutral conditions are the most likely scenario throughout the remainder of 2011, although development of El Niño conditions or re-emergence of La Niña conditions cannot be ruled out.

(Text Courtesy IRI)

Summary[2]

Weekly Monitoring: During the previous week (14th to 20th June, 2011) rainfall ranged from 0-30mm. Western slope received rainfall of 0-30 mm on 14th June 2011. On 15th June 2011, 0-20 mm of rainfall experienced to the Western and Southern regions of the country. Central north east region received 30 mm of rainfall. During 18th to 20th June 2011, the rainfall was slightly declined for the Western and Southern regions.

Monthly Monitoring: During May, above average rainfall was experienced all in the Central, Western, Eastern and South Eastern regions and below-average rainfall in the Northern Province and Matara District.

7 Day Prediction: For the coming week the NCEP Global Forecast System predicts accumulated rainfall below 35 mm particularly for the Western and South regions. The NCEP forecast as served through IRI predicts about below 75 mm rainfall for the South West region.

1 Month Prediction: The rainfall will decrease gradually till the 25th June, 2011 and thereafter it will increase until 28th. Until 2nd July 2011 the rainfall will be decrease. Thereon the rainfall will be increased until 10th July 2011 and slight change of the rainfall will be observed during 10th-13th July 2011. After the 13th July 2011 rainfall will be constant. From 22nd-24th western slopes will receive decreasing rainfall and from rainfall will be increased on 25th-26th June 2011. Rainfall will be decrease drastically during the 26th-2nd July 2001 for the western slopes. Thereafter rainfall will be increase with some fluctuations up to 20th July. For the Eastern slopes rainfall will decrease till the 24th June followed by an increase trend till the 4th July, with a drop from 28th June-1st July. 4th July onwards the rainfall will decrease.

Seasonal Prediction: As per IRI Multi Model Probability Forecast for June 2011 to August 2011, issued in May 2011, there is 40%-45% probability for temperature to be below 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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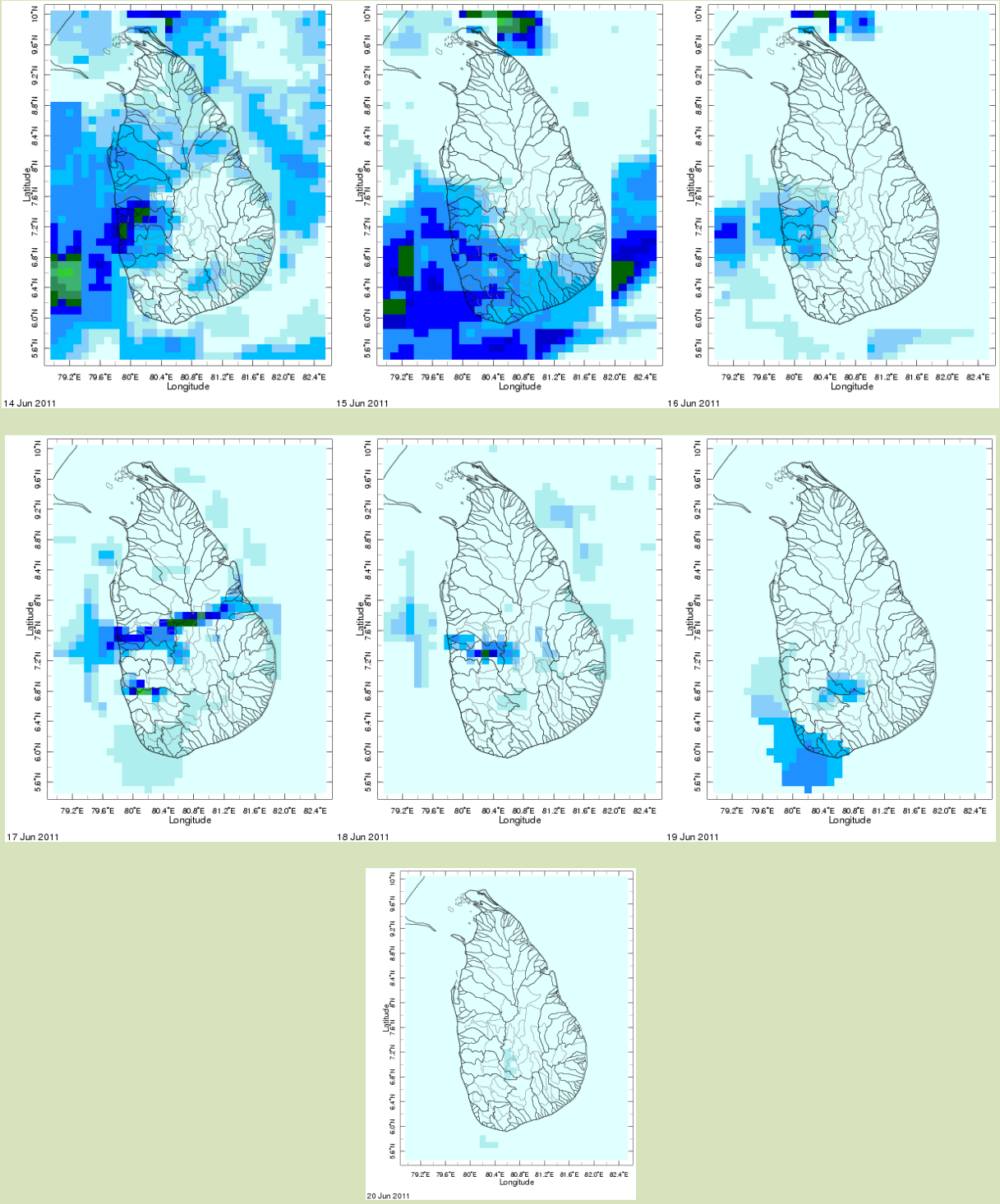
1. Rainfall Monitoring

a) Daily Satellite Derived Rainfall Estimate Maps: *14th June – 20th June, 2011 (Left-Right, Top-Bottom)*



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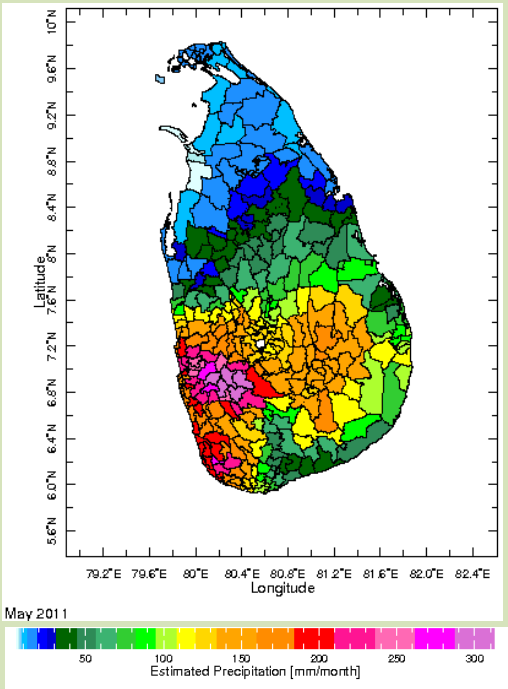
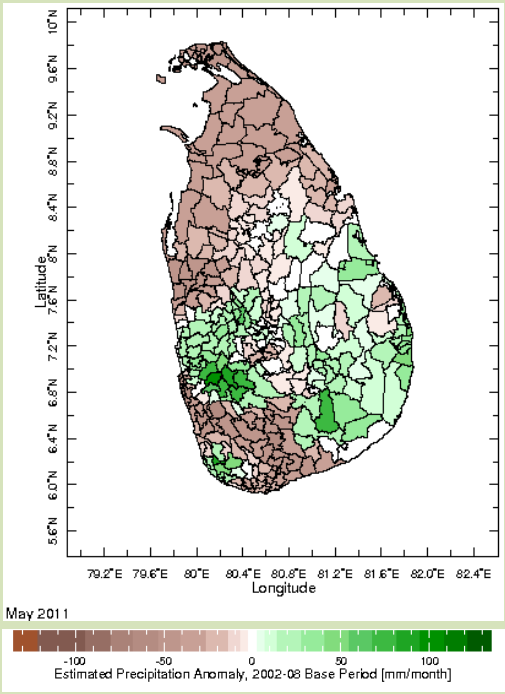
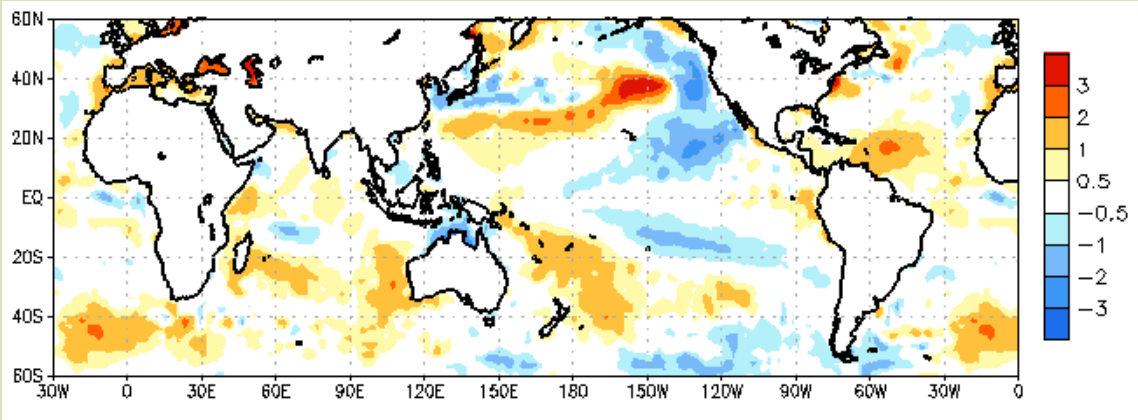
b) *Monthly Satellite Derived Rain fall Estimates for May 2011 (Total – Left and Anomaly -Right)*





c) *Weekly Average SST Anomalies*



Weekly Average SST Anomalies (^{0}C), 15th June, 2011

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

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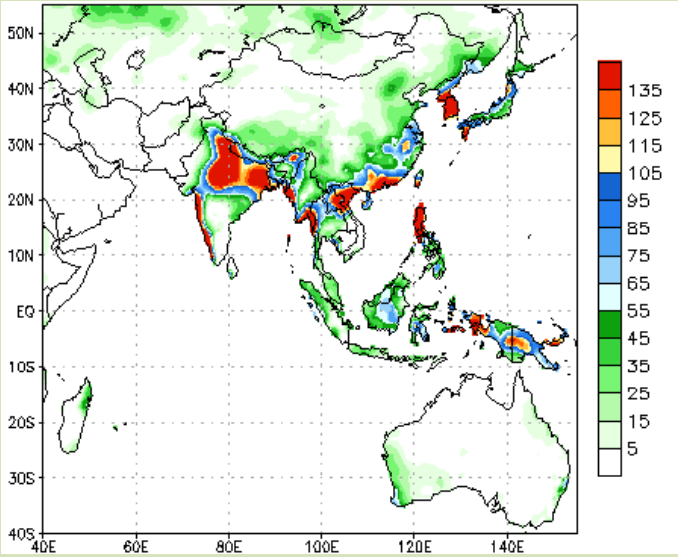
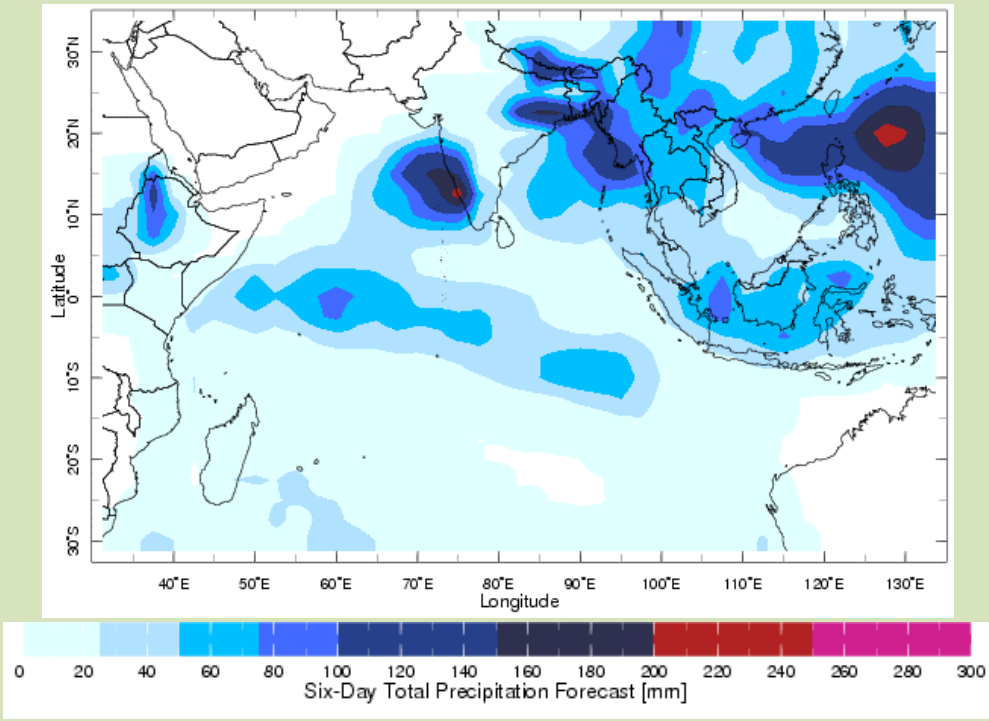
2. Predictions

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



During next week, an accumulated rainfall below 75 mm is predicted particularly for the South Western slope.

b) **Precipitation Forecast for 21st-26th June, 2011- NOAA-*(issued 21st June)***



Source – NOAA Climate Prediction Center

Map: Predicted accumulation of rainfall. (21st June- 26th June, 2011 week)

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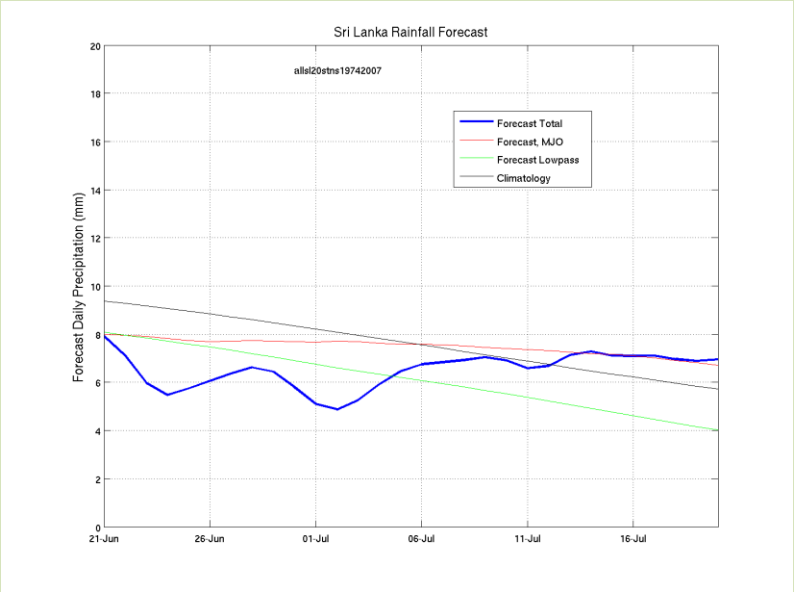
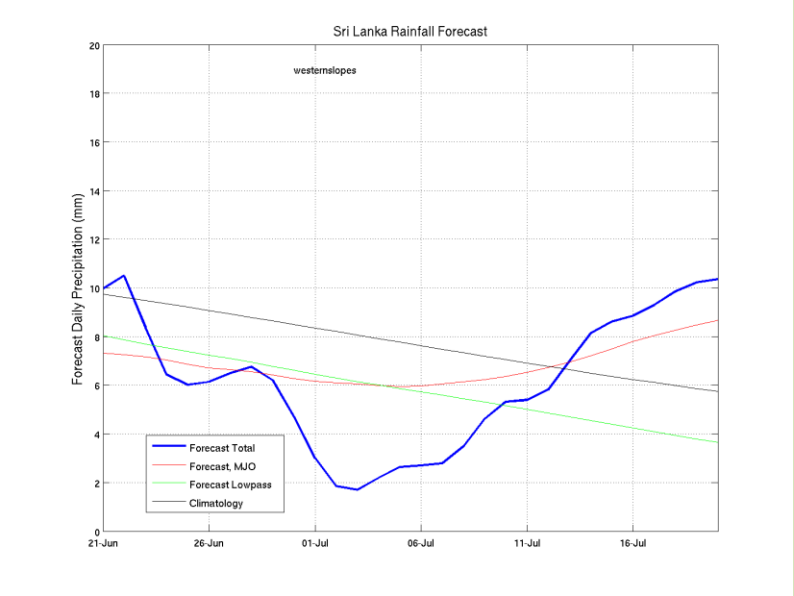
c) 1 month experimental predictions by Paul Roundy and L. Zubair

Predictions based on observed cloud cover and atmospheric waves. Issued 23rd June, 2011

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



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



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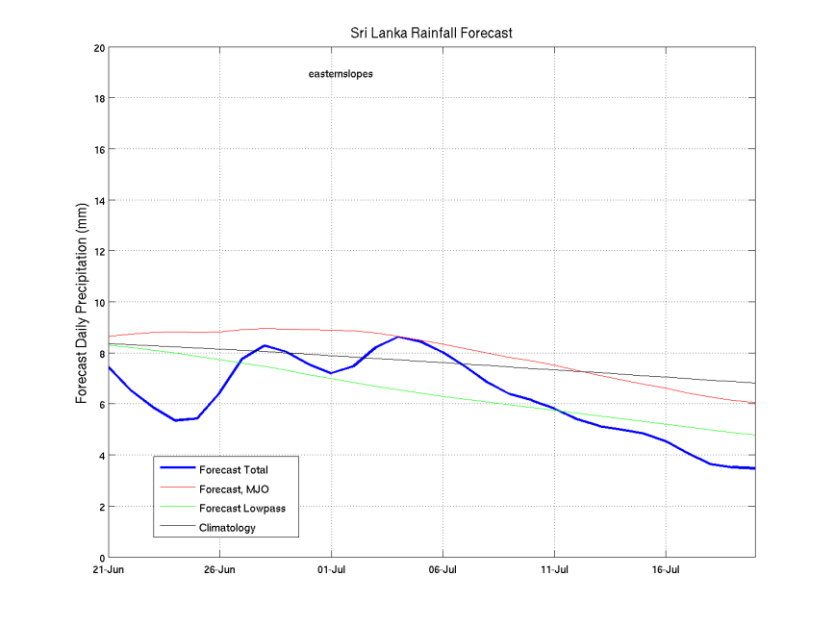
Eastern Slopes (Rainfall Scale- from 0-20 mm/day)



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d) Seasonal Rainfall and Temperature Predictions from IRI