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

by: Akram Kamiss, Prabodha Agalawatte, Sewwandhi Chandrasekara, Zeenas Yahiya, Lareef Zubair and Michael Bell (FECT and IRI[1])

23 July 2015

FECT BLOG

Past reports available at http://fectsl.blogspot.com/and

http://fectsl.wordpress.com/

FECT WEBSITES

http://www.climate.lkand http://www.tropicalclimate.org/

July 16, 2015

PACIFIC SEAS STATE

During late June through mid-July 2015 the SST was at a moderate El Niño level. All atmospheric variables support the El Niño pattern, including weakened trade winds and excess rainfall in the east-central tropical Pacific. The consensus of ENSO prediction models indicate continuation of moderate, and likely becoming strong, El Niño conditions during the July-September 2015 season in progress. Further strengthening between summer and fall is likely, with the event lasting into early 2016.

(Text Courtesy IRI)

INDIAN OCEAN STATE

1 ^{0}C above average temperature was observed around Sri Lanka.

MJO STATE

MJO is weak and therefore shall not have a significant impact on the rainfall in Sri Lanka.

Highlights

Southern region and the ocean near southern province mostly received rainfall up to 10-50 mm during 14th July – 20th July 2015. Rainfall up to 20-30 mm observed in the ocean near Southern and south western regions on 15th, 16th, 17 and 18th July. Rainfall up to 30 mm observed in Kegalle and Nuwara-Eliya on 19th July and on 20th July and rainfall up to 30 mm observed in southern province and in the ocean near southern province. NOAA models predict high rainfall in south western region of the country in the next fortnight.

Summary

Monitoring

***Weekly Monitoring*:** During the time period 14th July – 20th July 2015, southern province mostly received rainfall up to 10 mm/day. On 14th July, southern province, Colombo, Kalutara, Ratnapura and Moneragala received rainfall up to 10 mm. On 15th July, ocean near Galle and Matara received rainfall up to 20 mm and on 16th July Ocean near western and southern provinces received rainfall up to 30 mm while Galle, Matara and Ratnapura received rainfall up to 10 mm. Rainfall up to 20 mm was observed in the ocean near Galle on 17th and 18th July and on 19th July, up to 30 mm rainfall was observed in southern region of Kegalle, western region of Nuwara-Eliya district and in the ocean near northern province. On 20th July rainfall up to 30 mm was observed in the ocean near southern province while Galle district observed rainfall up to 50 mm and Matara, Hambantota, southern region of Ratnapura and southern region of Moneragala also received rainfall up to 30 mm.

***Monthly Monitoring*:** In the month June 2015, western, Sabaragamuwa and south eastern regions of the country received above average rainfall of up to 8 mm/day. The rest of the country received below average rainfall during this month.

Predictions

14 day prediction: NOAA NCEP models predict low rainfall in south western region of the country during 22nd July – 04th August. Up to 45 mm total rainfall is expected during these two weeks while the rest of the country shall not receive significant amount of rainfall.

IMD WRF &IRI Model Forecast: According to the IMD WRF model Western region of the country shall receive rainfall up to 35 mm/day on 24th July. The rest of the country shall receive slight amounts of rainfall. The rainfall shall be reduced on 25th July and western and south eastern region of the country shall receive rainfall up to 8 mm and the rest of the country shall not receive significant rainfall. IRI CFS model also predicts high rainfall in South western and eastern provinces on 22nd – 27th July.

Seasonal Prediction: As per IRI Multi Model Probability Forecast for August to October, the total 3 month precipitation shall be climatological. The 3 month temperature has more than 70-80% likelihood in the entire country of being in the above-normal tercile during this period.

Inside this Issue

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

FOUNDATION FOR ENVIRONMENT, CLIMATE AND TECHNOLOGY

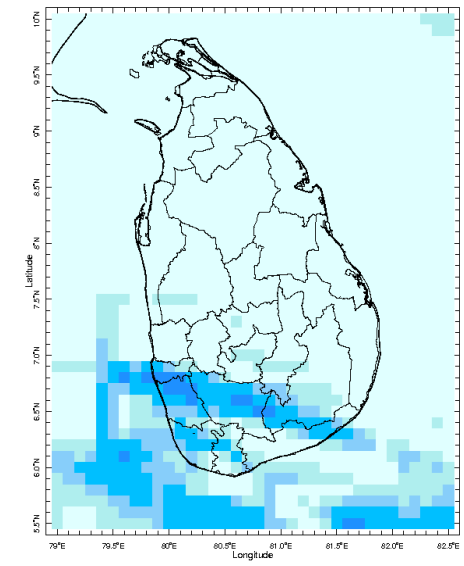
www.climate.lk www.tropicalclimate.org/maldives

Weekly Hydro- Meteorological Report for Sri Lanka

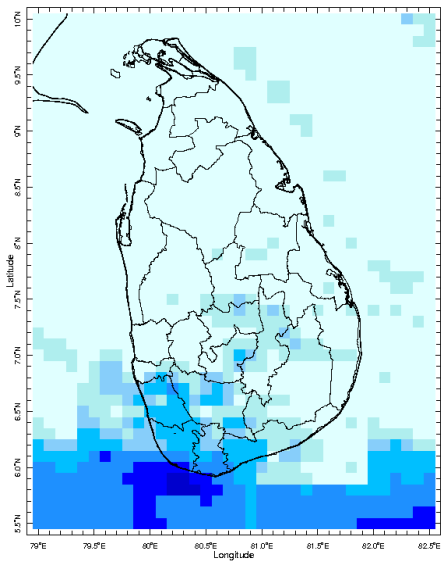
Inside This Issue

Daily Rainfall Monitoring

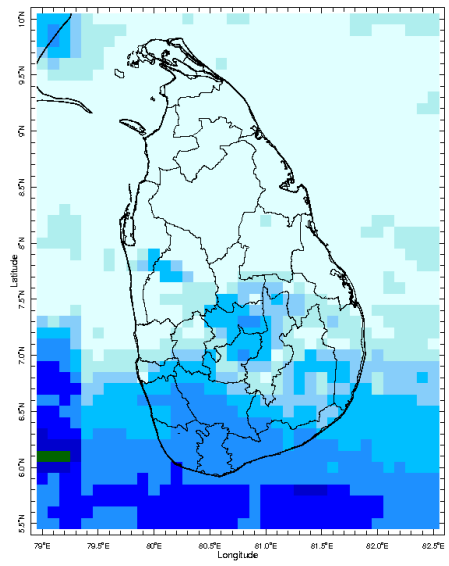
The following figures show the satellite observed rainfall in the last 7 days in Sri Lanka.



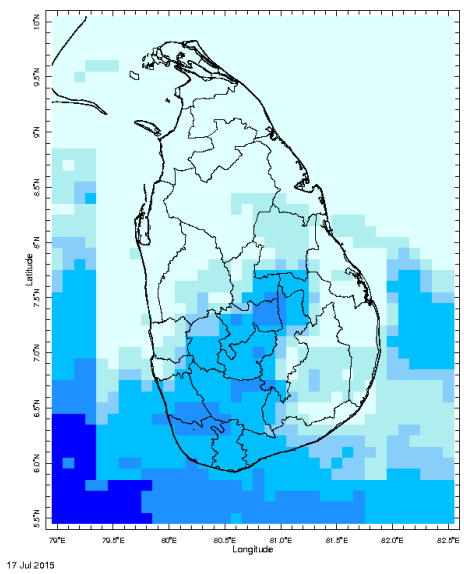
14 Jul 2015



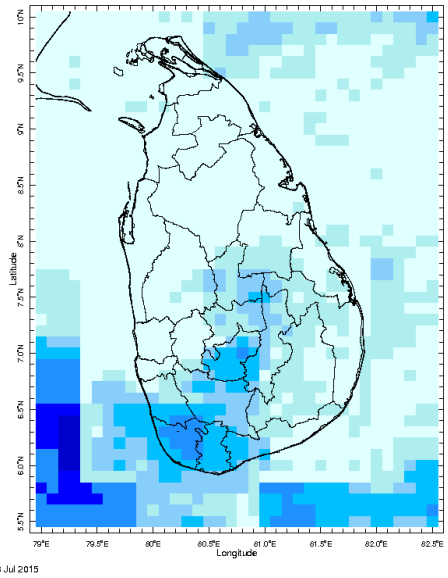
15 Jul 2015



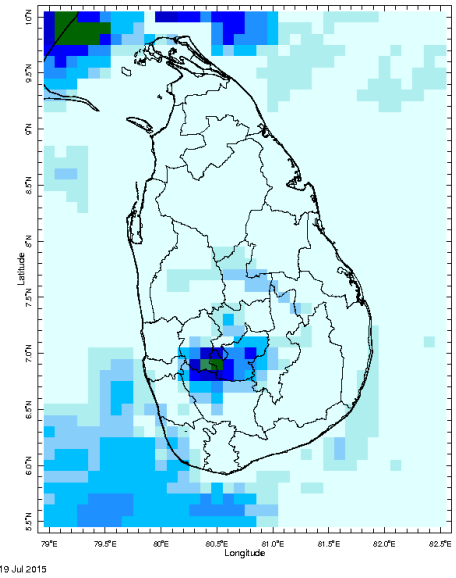
16 Jul 2015



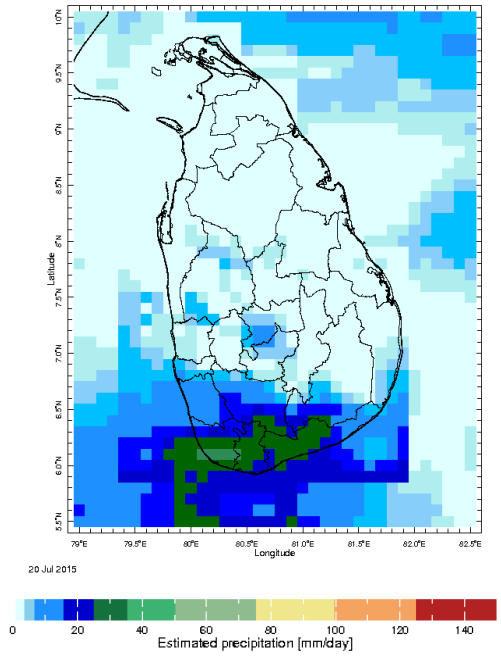
17 Jul 2015



18 Jul 2015

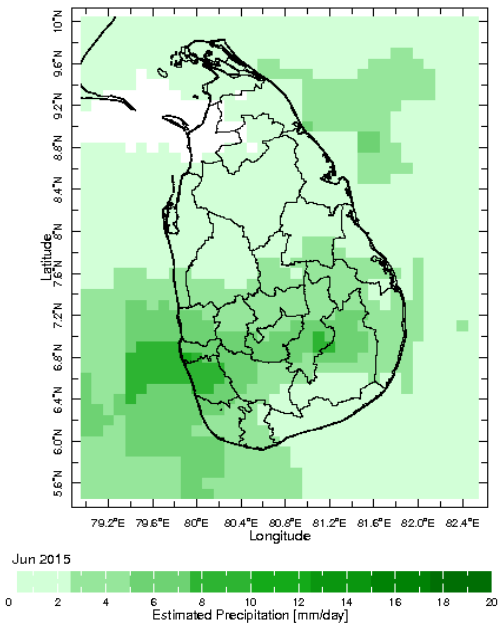


19 Jul 2015

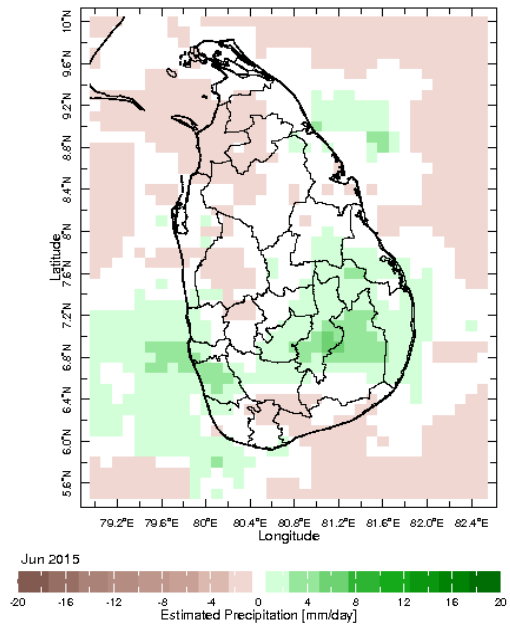


Monthly Rainfall Monitoring

The figure in the left shows the average observed rainfall in the previous month. The rainfall anomaly in the previous month is shown in the figure to the right. The brown color in the anomaly figure shows places which received less rainfall than the historical average while the green color shows places with above average rainfall. Darker shades show higher magnitudes in rainfall

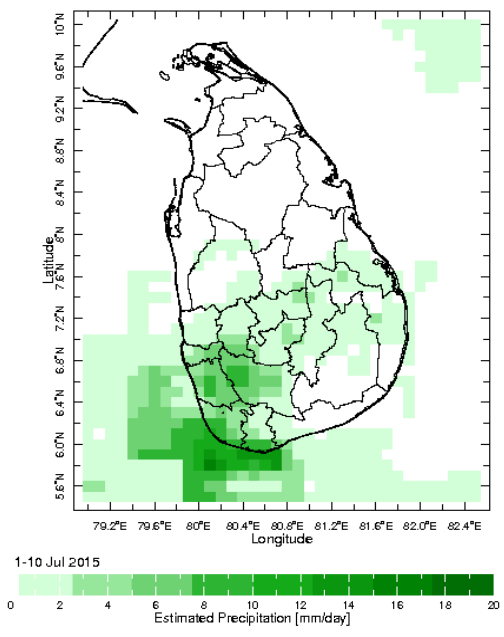


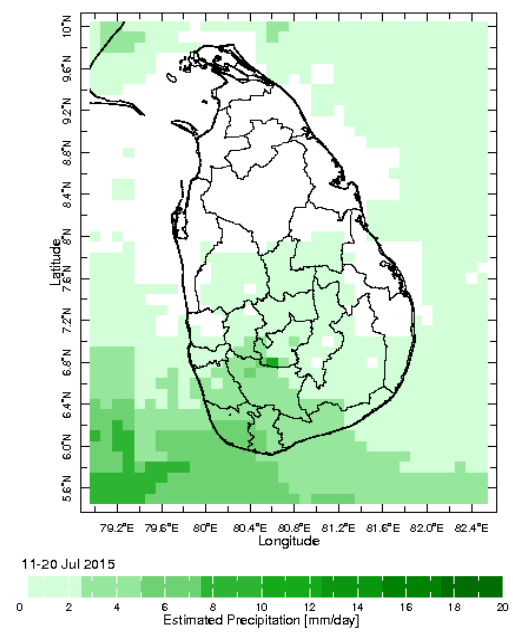
Monthly Average



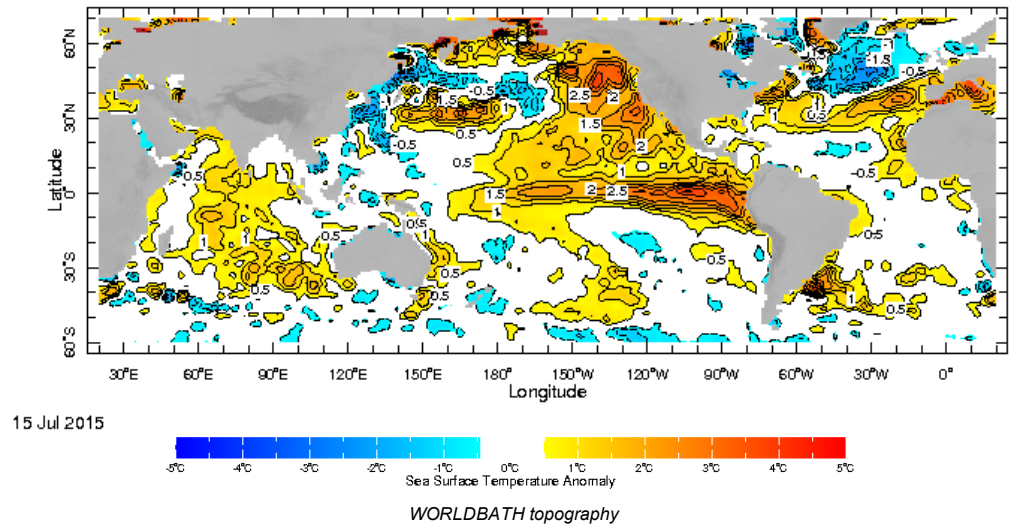
Monthly Anomaly

Dekadal (10 Day) Satellite Derived Rainfall Estimates

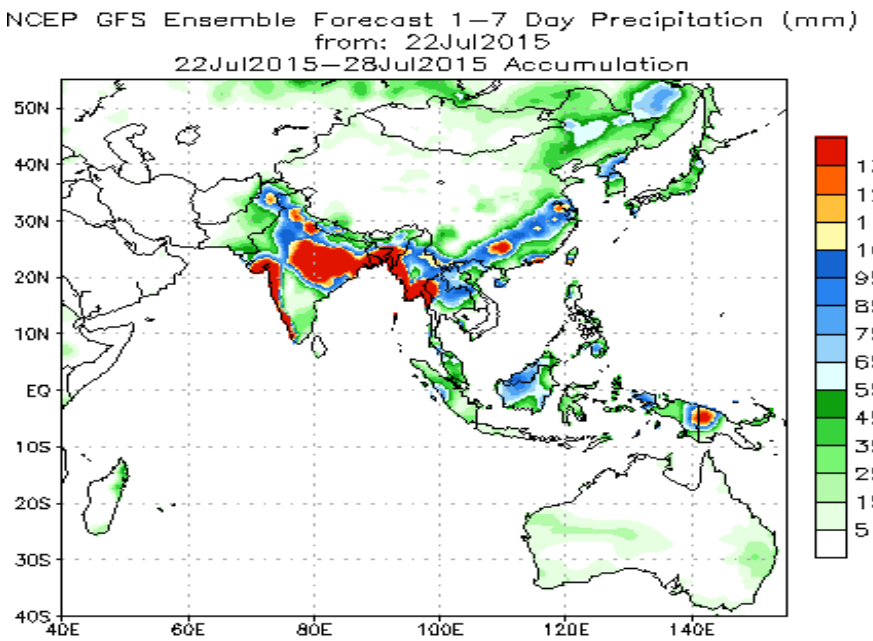


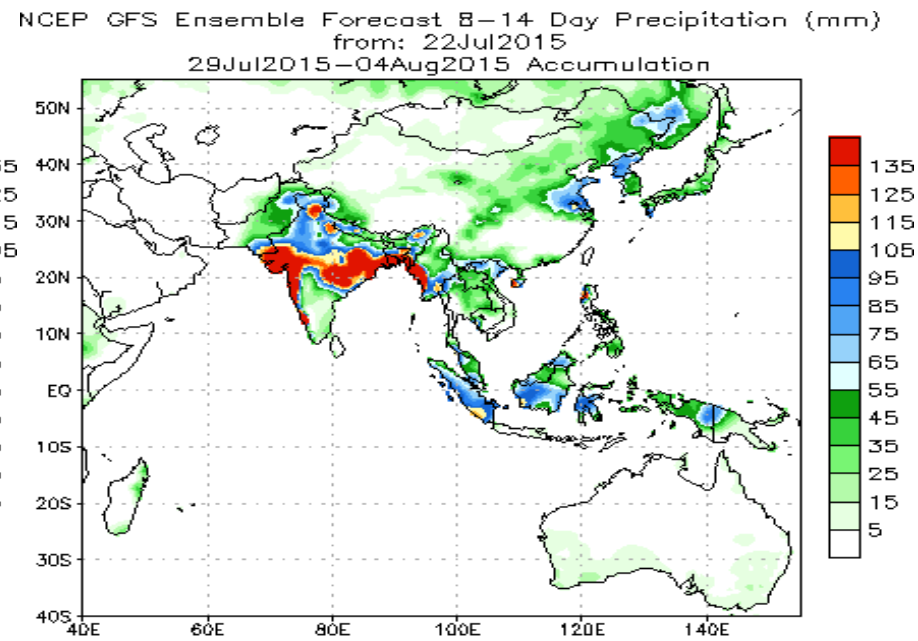


Weekly Average SST Anomalies

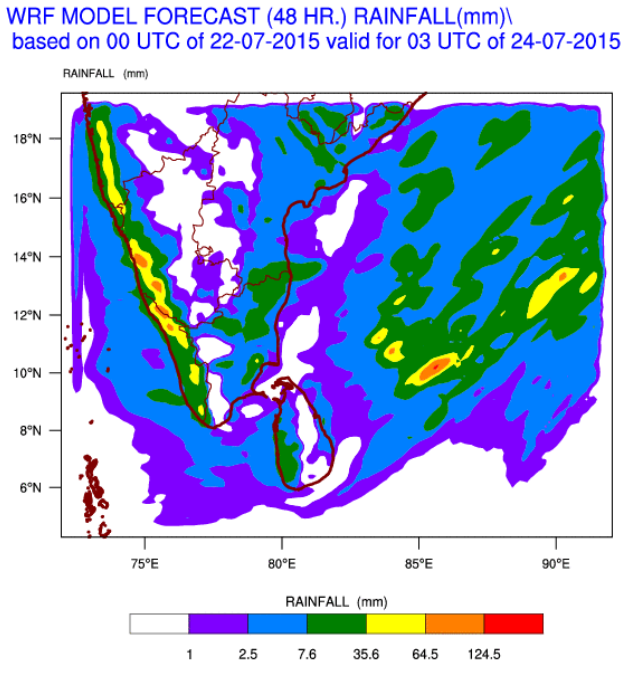


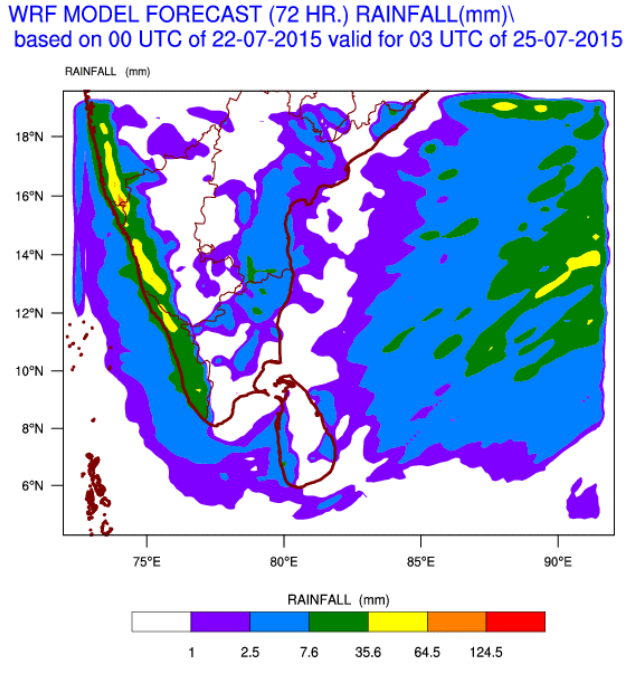
NCEP GFS 1- 14 Day prediction





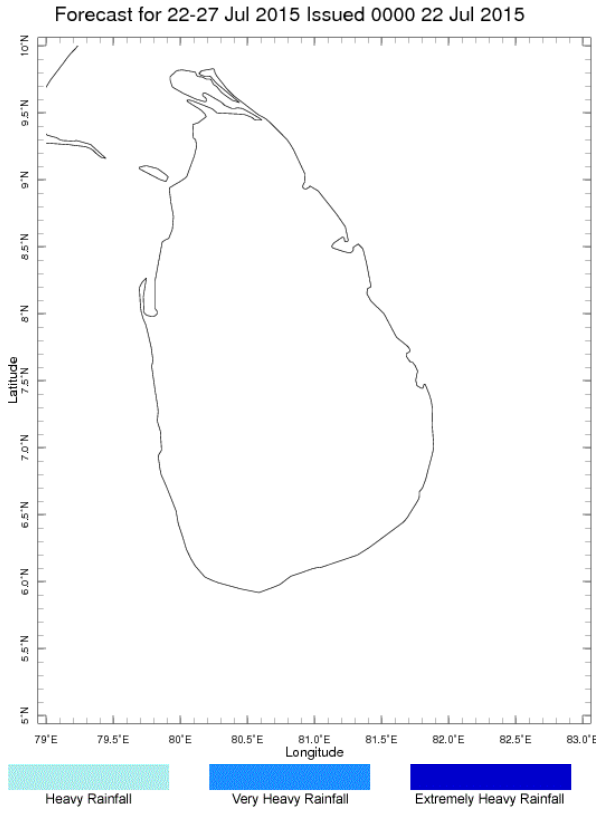
WRF Model Forecast (from IMD Chennai)



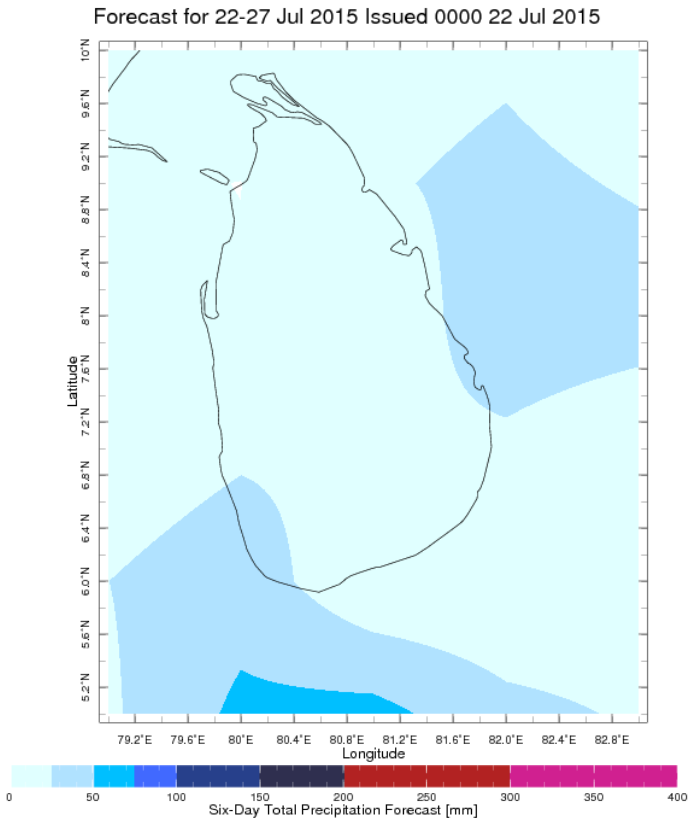


Weekly Rainfall Forecast

Total rainfall forecast from the IRI for next six days is provided in figures below. The figure to the left shows the expectancy of heavy rainfall events during these six days while the figure to the right is the prediction of total rainfall amount during this period.



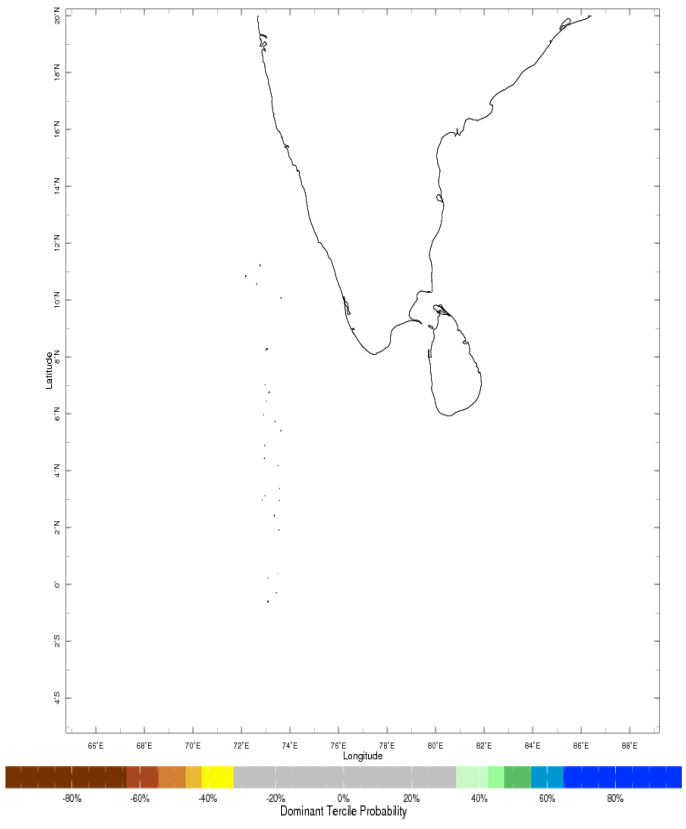
Extreme Rainfall Forecast



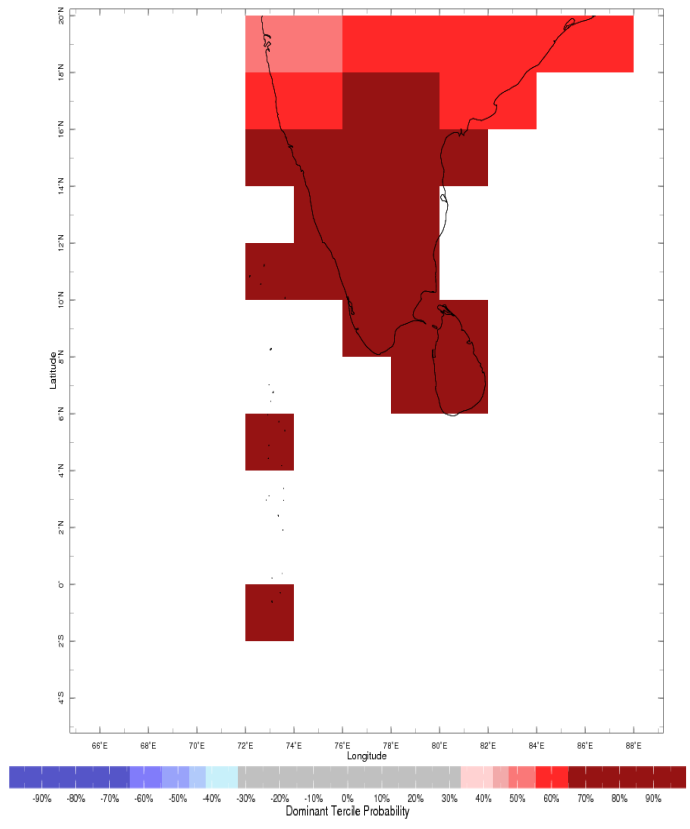
Total Six Day Precipitation Forecast

Seasonal Rainfall and Temperature Forecast

Following is the latest seasonal precipitation and temperature prediction for the next 3 months by the IRI. The color shading indicates the probability of the most dominant tercile -- that is, the tercile having the highest forecast probability. The color bar alongside the map defines these dominant tercile probability levels. The upper side of the color bar shows the colors used for increasingly strong probabilities when the dominant tercile is the above-normal tercile, while the lower side shows likewise for the below-normal tercile. The gray color indicates an enhanced probability for the near-normal tercile (nearly always limited to 40%).



Precipitation Forecast



Temperature Forecast

Subscribe to our Monthly Maldives Newsletter

email address

Subscribe

Follow @fectmv
Contact Us
email: fectsl@gmail.com
phone: (+94) 81 2376746
blog: www.fectsl.blogspot.com

Foundation for Environment, Climate & Technology
C/O Mahaweli Authority of Sri Lanka,
Digana Village,
Rajawella,
SRI LANKA