

Experimental Hydrometeorological Monitoring and Prediction

(Prepared for Water Management Secretariat, Mahaweli Authority)

Issued: 02nd September 2009

Summary¹

Weekly Monitoring: Scattered showers were experienced in Western, Southern Southwestern and Central part of the island during last week (23-30Aug).

3 Day Prediction: The National Centre for Medium Range Weather Forecasting (NCMRWF) has predicted that moderate rainfall (20-80mm) for Sri Lanka excluding eastern region on 3rd and 4th September. For southwestern region 20-40 mm rainfall is predicted on 5th September.

7 Day Prediction: For next seven days the NCEP Global Forecast System predicts 55-105mm accumulated rainfall for Western, Southern, Southwestern and Central region of the island and 25-45 mm rainfall is predicted for other part of the island.

1 month Prediction: According to Roundy/Zubair forecast, rainfall will gradually decrease till the 05th August and after that it will slightly increase. After 8th September rainfall will gradually decrease.

Seasonal Prediction: As there is an El Nino event at present, the likelihood of higher than normal rainfall is slightly enhanced for the start of the Maha (October to December). Temperatures too shall be slightly enhanced for the next months.

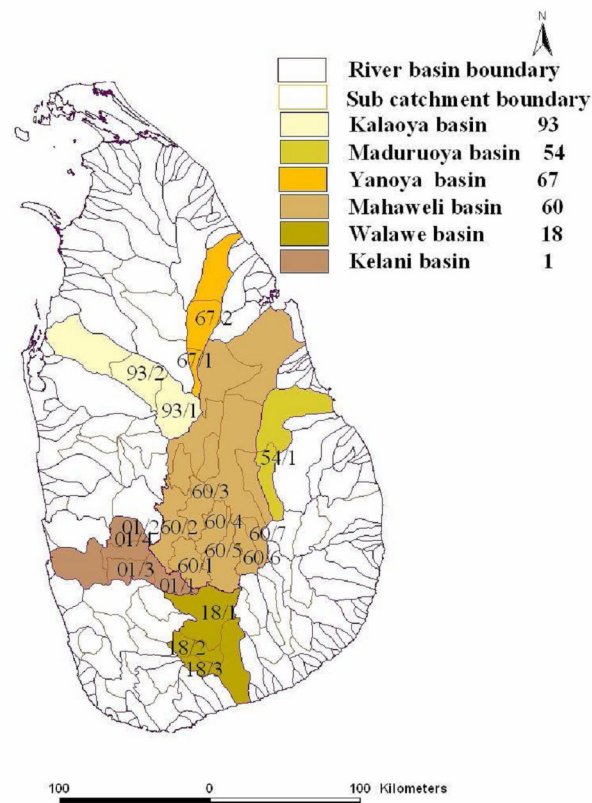
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¹ These interpretations are provided for the use of the WMS/MASL. Official hydro-meteorological statements are provided by the Sri Lanka Department of Meteorology and Department of Irrigation.

1. Rainfall Monitoring

a. Rain fall Monitoring by River Basin

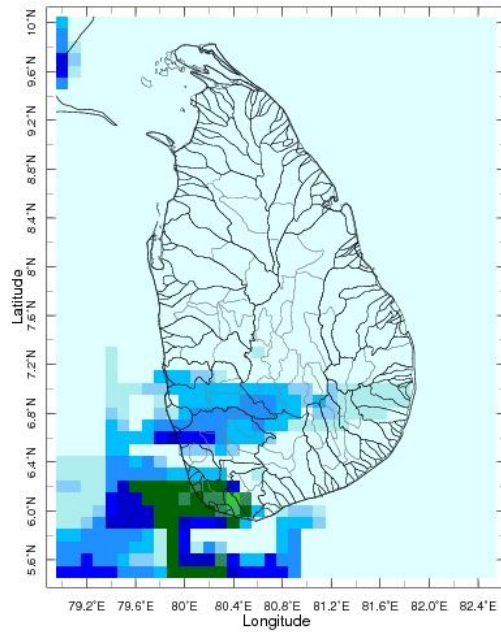


Map: Selected river basins and sub catchments for rainfall estimates

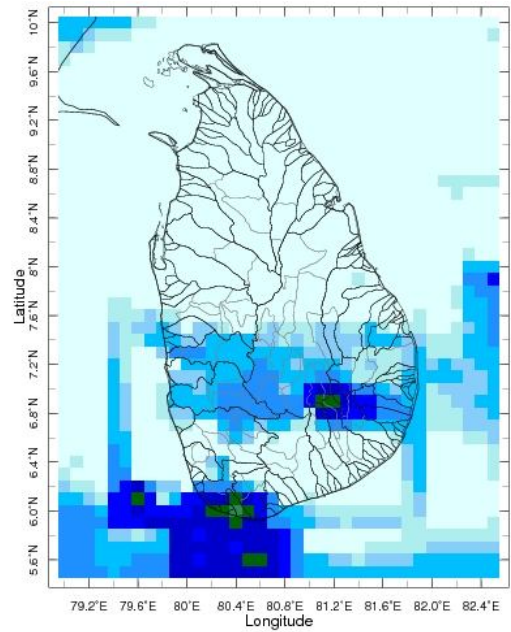
Table: Rainfall is calculated from satellite estimated rainfall (RFE) data from NOAA CPC. We have undertaken calibration of RFE and found its quality to be good.

River Basin		Sub-Catchment		Rainfall (mm) 23– 30 August 2009
No	Name	No	Name	
1	Kelani	1/1	Maskeli Oya	23
1	-do-	1/2	Gurugoda Oya	14
1	-do-	1/3	Sitawaka Oya	26
1	-do-	1/4	Upstream of Glencorse Gauging Station.	21
18	Walawe	18/1	Upstream of Uda Walawe Reservoir	12
18	-do-	18/2	Upstream of Embilipitiya Gauging Station	10
18	-do-	18/3	Upstream of Chandrika Wewa	10
54	Maduru Oya	54/1	Upstream of Maduru Oya	11
60	Mahaweli	60/1	Kotmale	19
60	-do-	60/2	Polgolla	19
60	-do-	60/3	Victoria	18
60	-do-	60/4	Randenigala	15
60	-do-	60/5	Badulu Oya	14
60	-do-	60/7	Loggal Oya	17
67	Yan Oya	67/1	Upstream of Hurulu Wewa	6
93	Kala Oya	93/1	Upstream of KalaWewa	22
93	-do-	93/2	Upstream of Rajangana Wewa	7

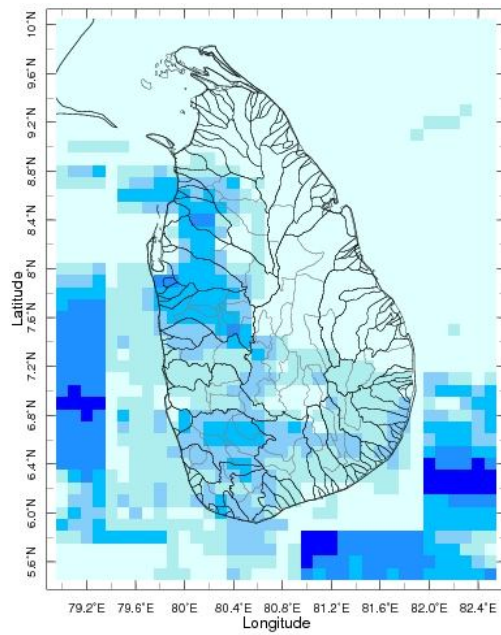
b. Daily Satellite Derived Rain fall Estimates



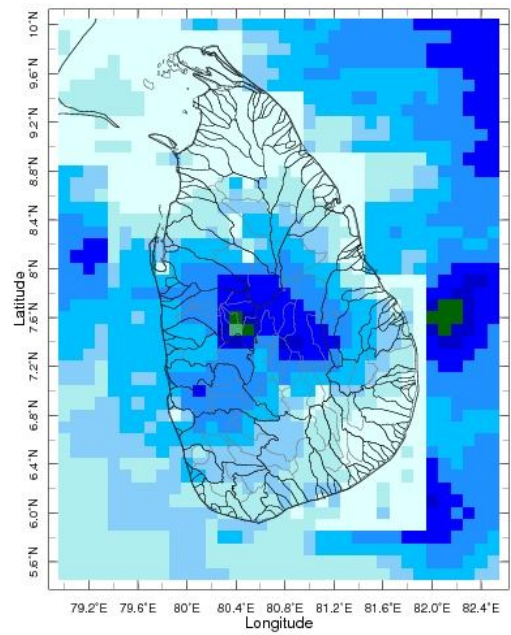
27 Aug 2009



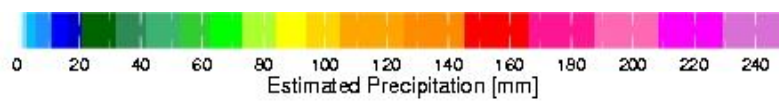
28 Aug 2009



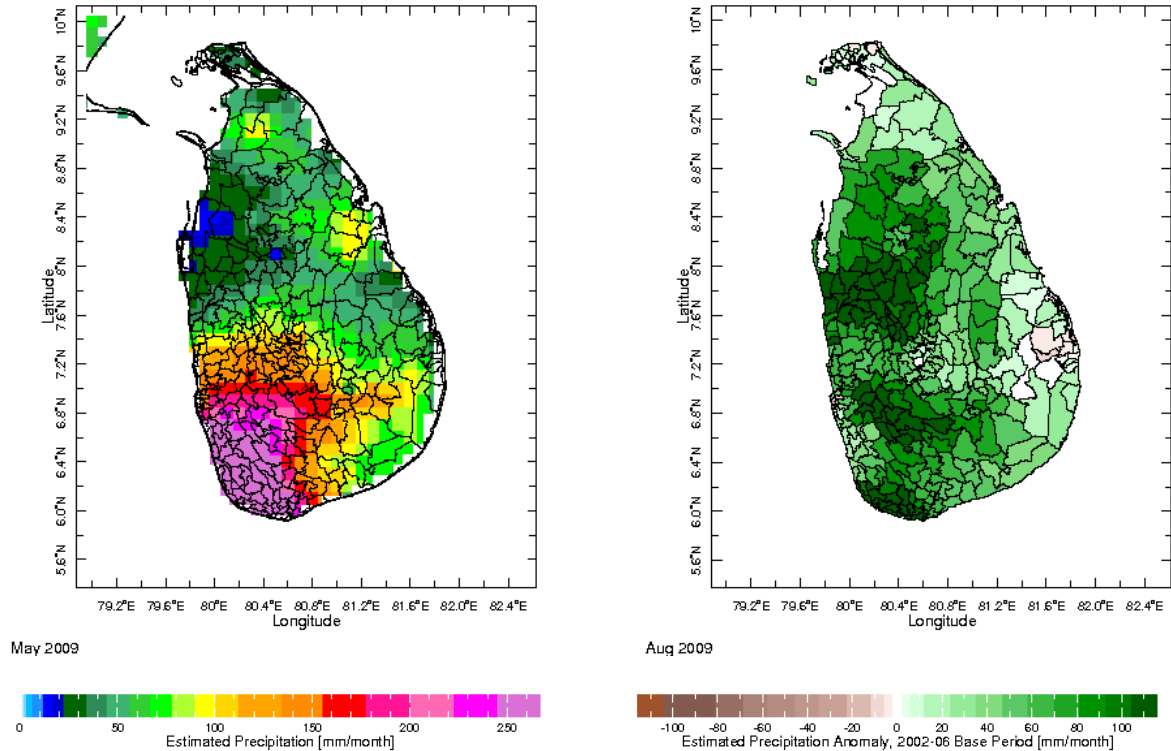
29 Aug 2009



30 Aug 2009



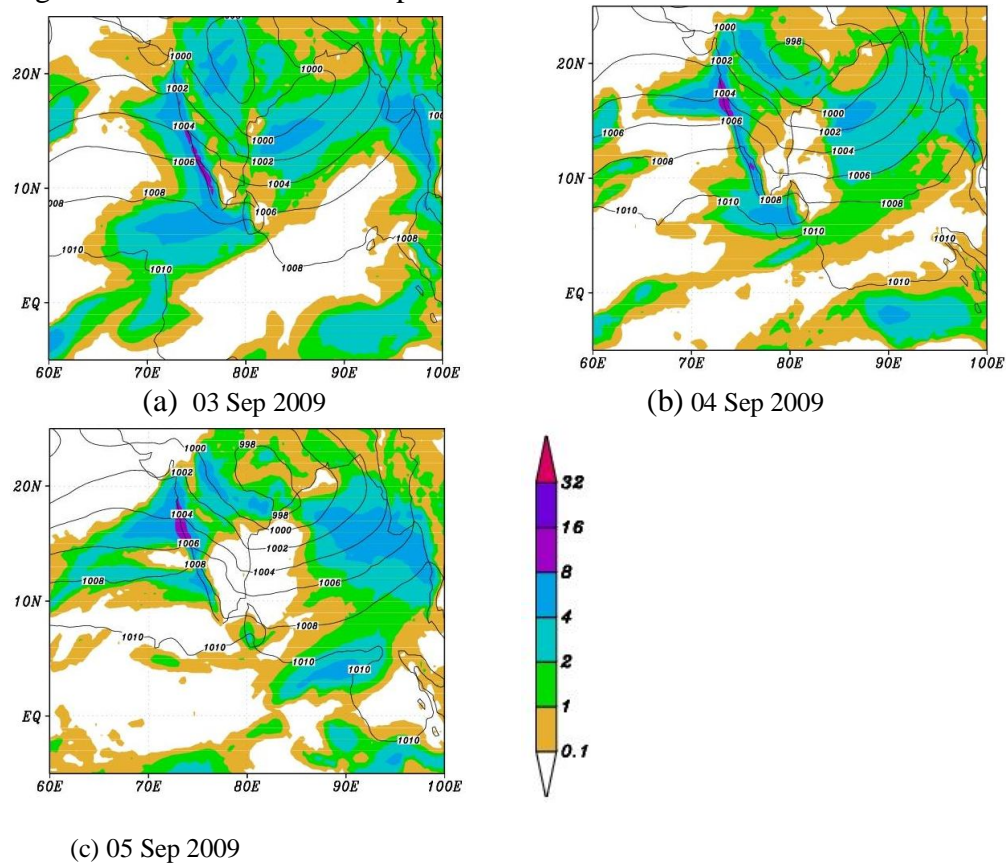
c. Satellite Rainfall Estimates and Anomalies for August 2009



2. Predictions

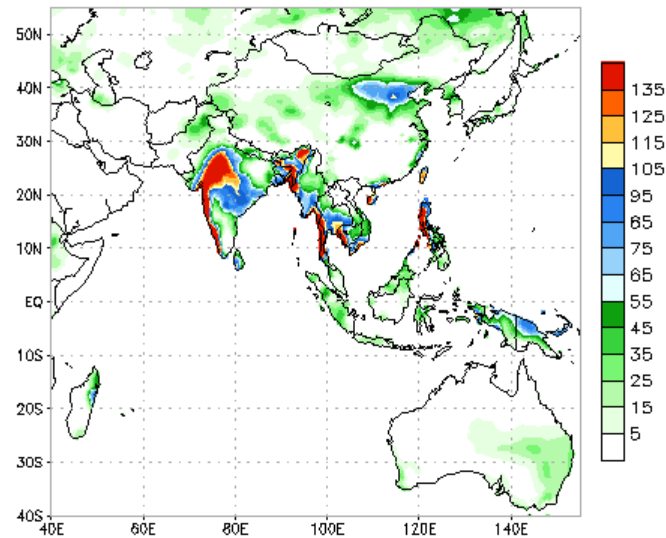
a. 1-3 day predictions, National Centre for Medium Range Weather Forecasting, Indian Meteorological Department.

For 03rd and 04th September moderate rainfall (20-80) is predicted for Sri Lanka excluding eastern region and 10-40 mm rainfall is predicted for southwestern region of Sri Lanka on 05th September.



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

Western, Southern, Southwestern, and central part of the island would receive 55-105 mm accumulated rainfall during next week. Other part of the island would receive 25-55 mm rainfall.



Source – NOAA Climate Prediction Center

Map: Predicted accumulation of rainfall. (01- 07Sep 2009 week)

c. One month experimental predictions by Paul Roundy (SUNY Albany) and L. Zubair (Columbia U.)

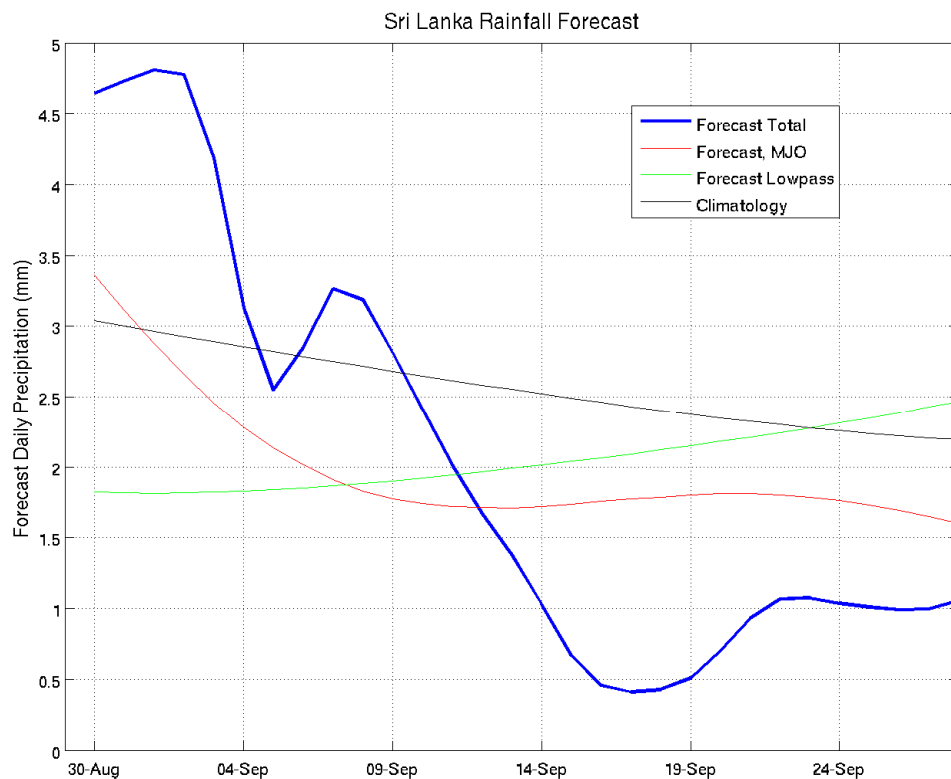


Chart: Rainfall predictions based on observed cloud cover and atmospheric waves over the Indian Ocean. Issued September 02, 2009.

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