

Experimental Climate Monitoring and Prediction

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FECT BLOG

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

<http://fectsl.wordpress.com/>

FECT WEBSITES

<http://www.climate.lk>and
<http://www.tropicalclimate.org/>

06 November, 2014 PACIFIC SEAS STATE

During September through October the observed ENSO conditions retreated from those of a borderline El Niño to a warmish ENSO-neutral state.

However, most of the ENSO prediction models continue to indicate development of weak El Niño conditions during the October-December season in progress, peaking at weak strength during winter 2014-15 and lasting through most of northern spring 2015.

(Text Courtesy IRI)

INDIAN OCEAN STATE

Sea surface temperature was neutral in the entire region around Sri Lanka.

MJO STATE

MJO is weak and in Phase 2 in Indian Ocean and therefore shall not influence rainfall in Sri Lanka.

Highlights

Monitoring and Predictions:

High rainfall was observed throughout the country in the previous week with dry conditions in one or two days arising in between. Rainfall shall continue to increase during next week but not in a significant level. The entire sea region of Sri Lanka shows a neutral sea surface temperature.

Summary

Monitoring

Weekly Monitoring: Slight rainfall was observed in the north-central region on 10th of November. From 11th to 14th of November rainfall was increased in the entire country averaging upto 20 mm with highest rainfall observed in northern, western and south-east regions. On 16th of November no significant rainfall was observed throughout the country while on 16th, average rainfall of around 30 mm was observed with above 60mm in the south-east coastal region.

Monthly Monitoring: An average rainfall of 14 mm-16 mm was observed throughout the country with higher precipitation observed in the south-western regions of Sri Lanka during October. Highest rainfall during this month was observed in Uva, Sabaragamuwa and Central provinces. Also the decadal rainfall average was decreased from 18 mm to 4 mm within a week.

Predictions

14 day prediction:The entire country shall receive rainfall above 125 mm during 19th to 25th of November. Rainfall shall decrease throughout the country averaging around 65 mm during the week of 26th November to 02nd December.

IMD WRF & IRI Model Forecast: According to the IMD WRF model the entire country shall receive average rainfall around 64.5 mm on 21st of November with above 124.5 mm in the entire eastern coast. Rainfall is expected to decrease in the entire country on 22nd of November with around 2.5 mm-7.6 mm in the coastal regions only.

Seasonal PredictionAs per IRI Multi Model Probability Forecast issued in October for the season November 2014 to January 2015, Rainfall shall remain climatological while the temperature shall be above normal with a high probability.

Inside this Issue

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- Daily Satellite Derived Rain fall Estimates
- Monthly Rain fall Estimates
- Decadal (10 Day) Satellite Derived Rainfall Estimates
- Weekly Average SST Anomalies

2. Predictions

- NCEP GFS Ensemble 1-14 day predictions
- WRF model forecast Regional Meteorological Center, Chennai, Indian Meteorological Department)
- Weekly precipitation forecast (IRI)
- Seasonal Predictions from IRI

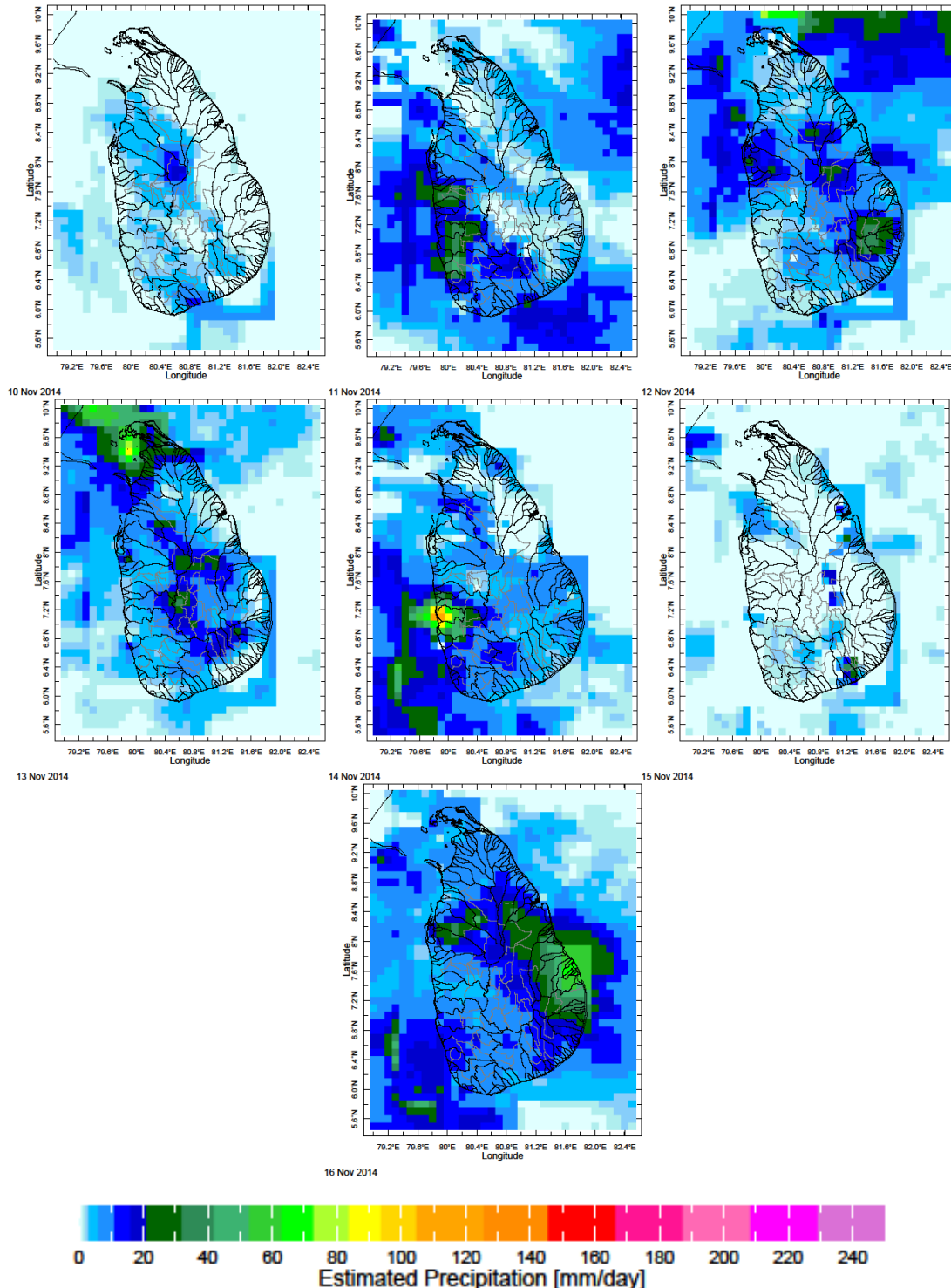
¹ International Research Institute for Climate and Society, Earth Institute at Columbia University, New York.

² These interpretations of hydro-meteorological conditions for the Mahaweli basins are provided for the use of the WMS/MASL.

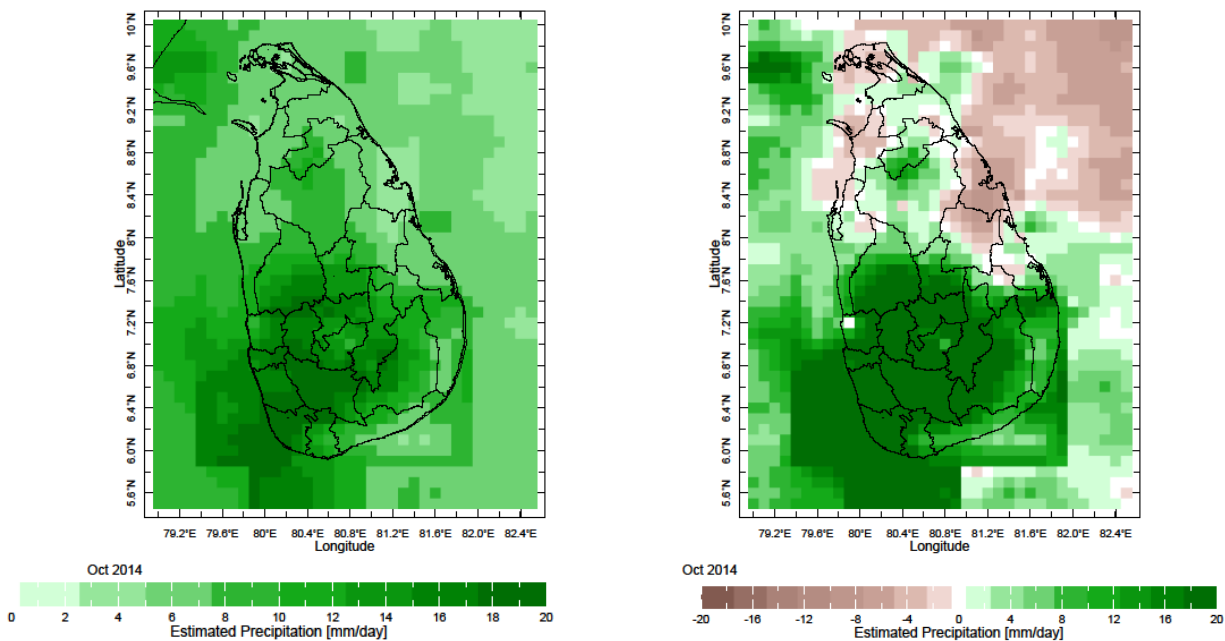
Official hydro-meteorological statements are provided by the Sri Lanka Department of Meteorology and Department of Irrigation.

1. Monitoring

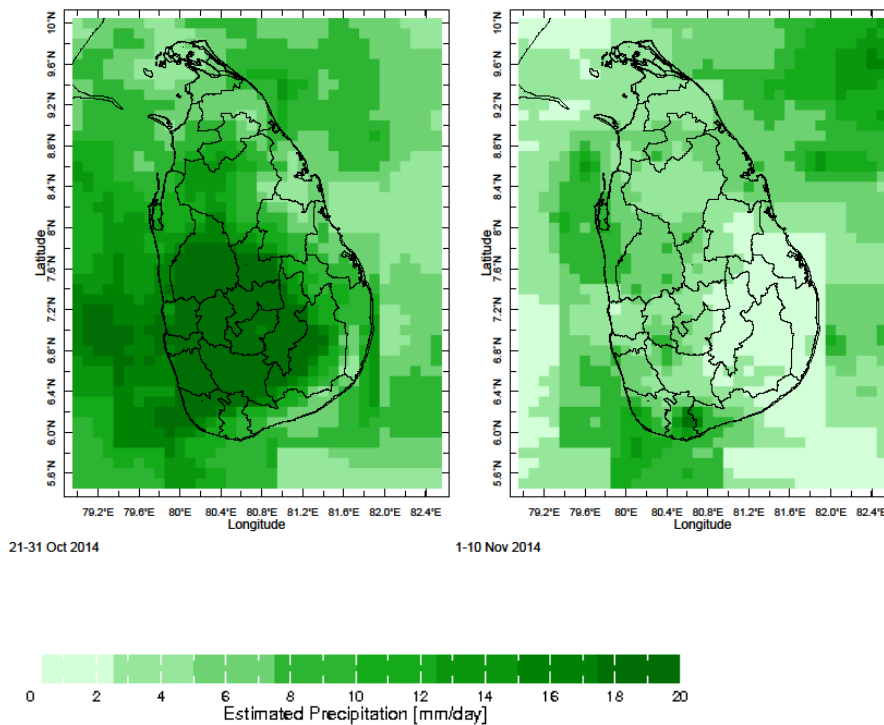
a) *Daily Satellite Derived Rainfall Estimate Maps: 10th November-16th November 2014 (Left-Right, Top-Bottom)*



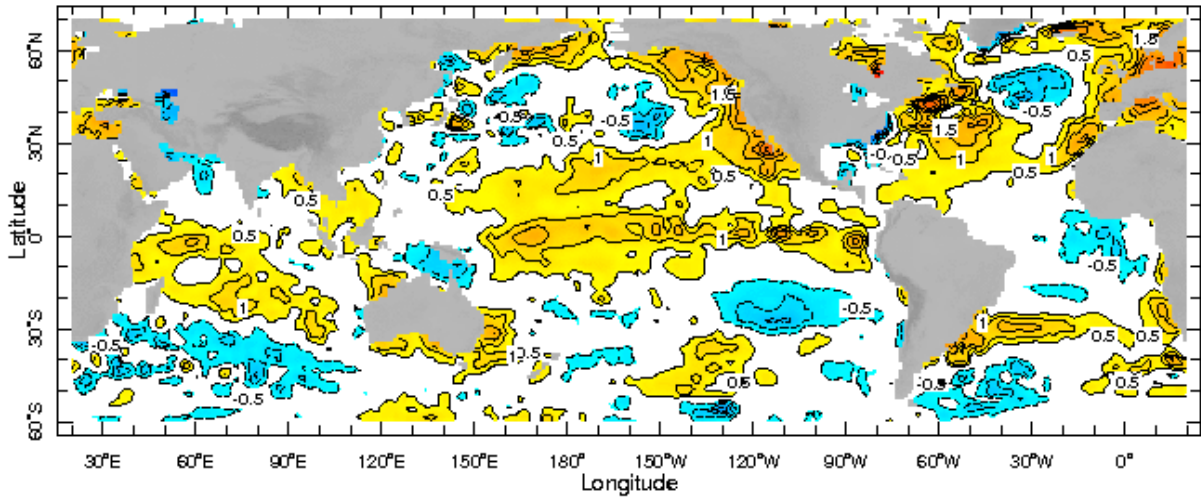
b) Monthly Satellite Derived Rainfall Estimates for October 2014 (Average – Left and Anomaly - Right)



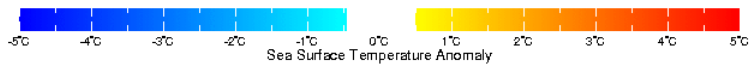
c) Dekadal (10 Day) Satellite Derived Rainfall Estimates (21-31 Oct and 1-10 Nov, 2014)



d) Weekly Average SST Anomalies



9-15 Nov 2014



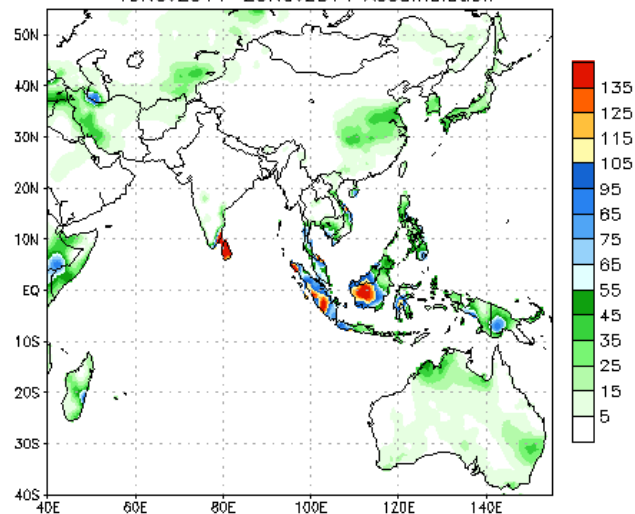
Weekly Average SST Anomalies (°C), 9th November-15th November, 2014

Data Source: NCEP Environmental monitoring center (Climatology 1971-2000)

2. Predictions

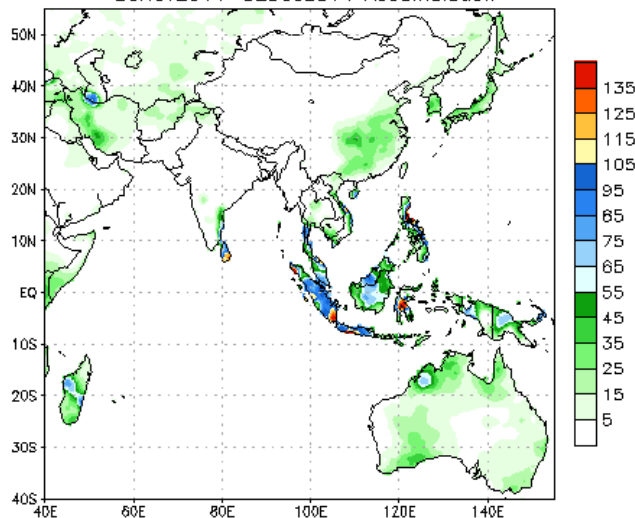
a) NCEP GFS Ensemble 1-14 day predictions, NOAA, Climate Prediction Centre, USA.

NCEP GFS Ensemble Forecast 1-7 Day Precipitation (mm)
from: 19Nov2014
19Nov2014-25Nov2014 Accumulation



Bias correction based on last 30-day forecast error

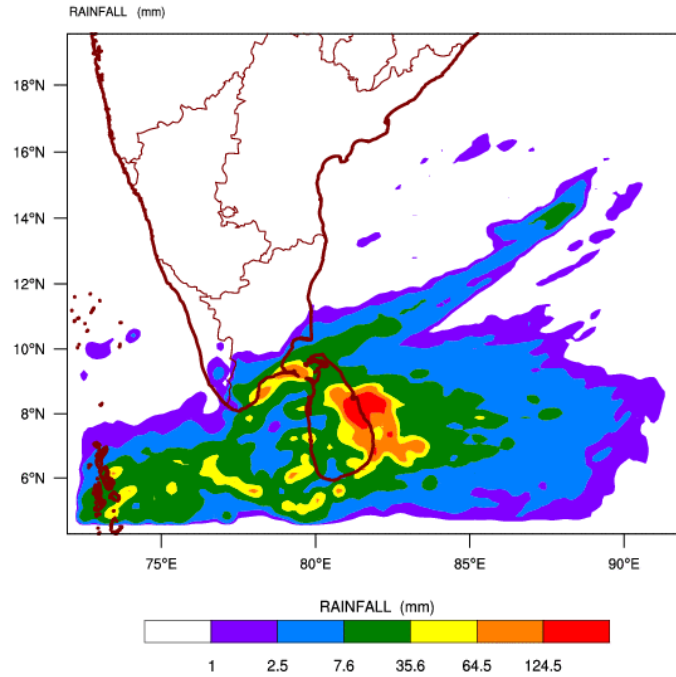
NCEP GFS Ensemble Forecast 8-14 Day Precipitation (mm)
from: 19Nov2014
26Nov2014-02Dec2014 Accumulation



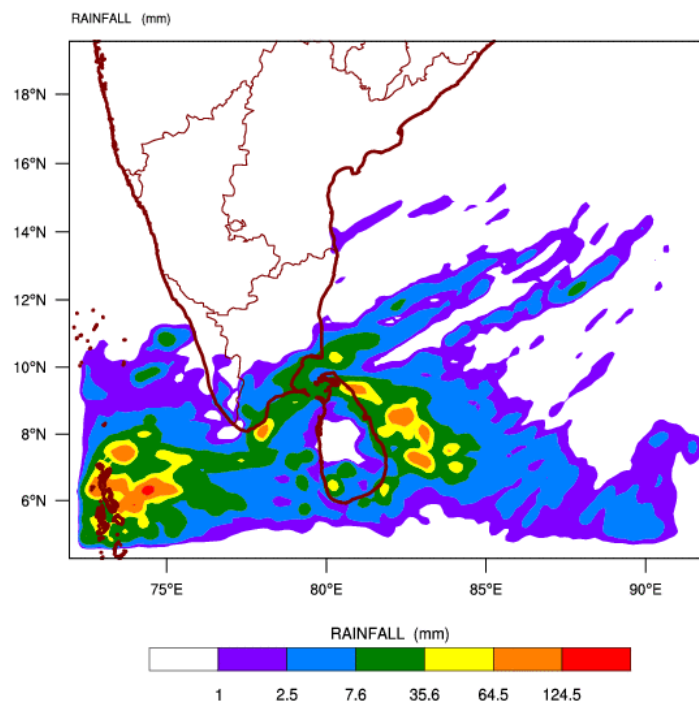
Bias correction based on last 30-day forecast error

b) WRF model forecast from Regional Meteorological Center, Chennai of Indian Meteorological Department

WRF MODEL FORECAST (48 HR.) RAINFALL(mm)
based on 00 UTC of 19-11-2014 valid for 03 UTC of 21-11-2014

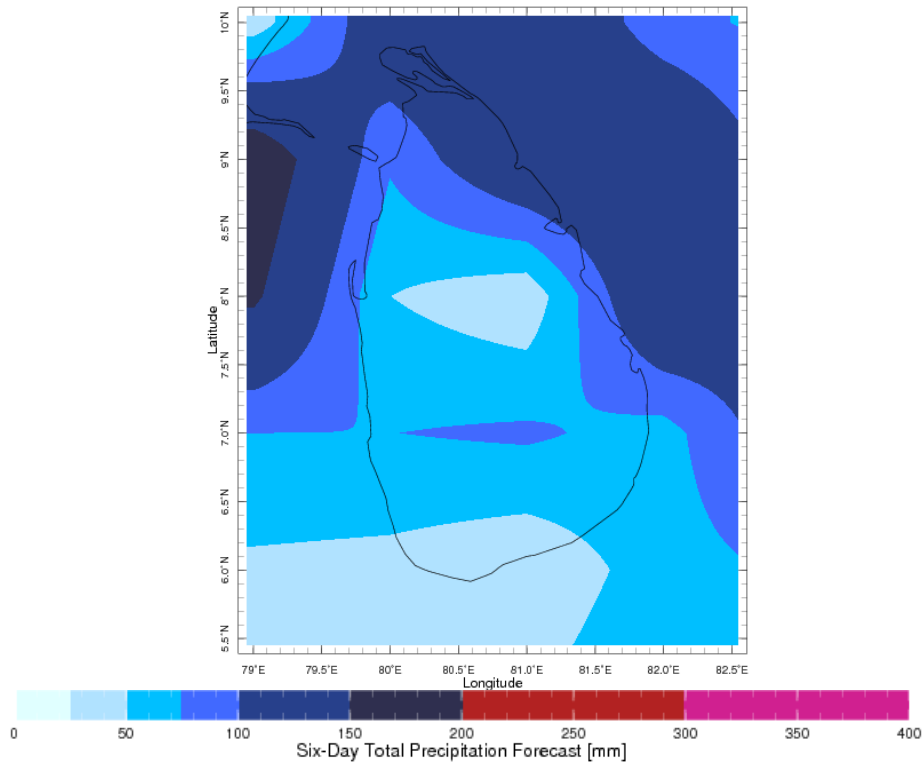


WRF MODEL FORECAST (72 HR.) RAINFALL(mm)
based on 00 UTC of 19-11-2014 valid for 03 UTC of 22-11-2014

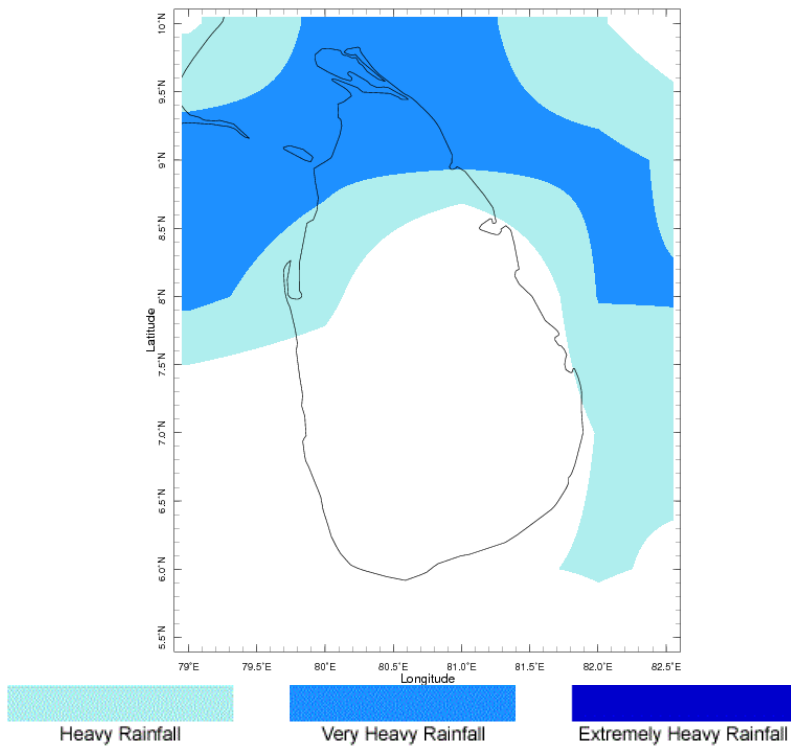


c) Weekly Precipitation Forecast for 18th November – 23rd November (Precipitation Forecast in Context Map Tool, IRI)

Forecast for 18-23 Nov 2014 Issued 0000 18 Nov 2014

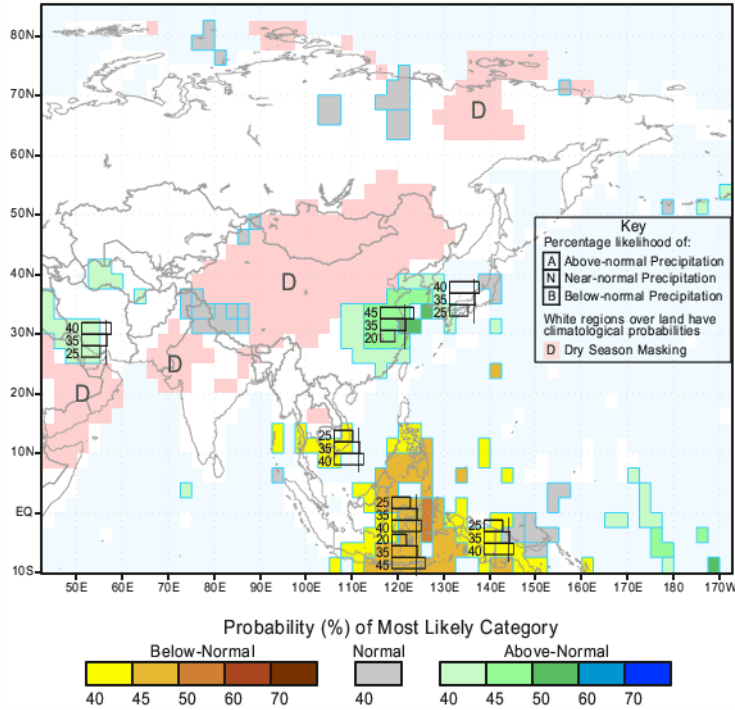


Forecast for 18-23 Nov 2014 Issued 0000 18 Nov 2014



e) Seasonal Rainfall and Temperature Predictions from IRI

IRI Multi-Model Probability Forecast for Precipitation
for November-December-January 2015, Issued October 2014



IRI Multi-Model Probability Forecast for Temperature
for November-December-January 2015, Issued October 2014

