

Experimental Climate Monitoring and Prediction for the Maldives

–September 2014

Prepared by Staff from Foundation for Environment, Climate and Technology, Sri Lanka and USA, Maldives Meteorological Service, and International Research Institute for Climate and Society

9 September 2014

FECT Maldives website

[www.tropicalclimate.org/
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PACIFIC SEAS STATE

September 4, 2014

During July through August
the observed ENSO
conditions were neutral.

Most of the ENSO prediction
models indicate warming to

El Niño levels coming
around early northern fall,
peaking at weak strength
during winter 2014-15 and
lasting into the first few
months of 2015.

(Text Courtesy IRI)

INDIAN OCEAN STATE

Sep 9, 2014

More than 1⁰ C above
average sea surface
temperature was
observed around Maldives.

Highlights²

The northern and central islands of the Maldives garnered their highest monthly rainfall in August for 2014. Despite this the cumulative deficit of rainfall continues to grow and currently the amount of this deficit has grown past 500 mm. In southern islands the deficit has become more significant.

Summary²

CLIMATOLOGY

Monthly Climatology: During September and October Northern islands receive rainfall up to 100 mm and the rainfall increases towards Southern islands of the country which receive up to 250 mm of rainfall. Rainfall in the southern islands shall decrease down to 200 mm in November and December.

MONITORING

Weekly Monitoring: On the 31st August and 1st of September no rainfall was observed in any part of Maldives. From 2nd onwards rainfall was observed in northern and central islands with rainfall reaching a maximum of 30 mm on the 2nd and decreasing gradually thereafter.

Monthly and Seasonal Monitoring: The entire country received higher precipitation than previous three months during August 2014. In northern and central islands the amount of rainfall received in August is the highest this year. Despite this the total rainfall deficit in this region continues to increase. In southern islands a lower than expected rainfall contributed to an emerging rainfall deficit.

PREDICTIONS

Weekly Rainfall Forecast: According to NOAA models, no heavy rainfall events are expected during 10th-15th September and during this period below average rainfall is expected in Maldives.

Seasonal Rainfall and Temperature Prediction: As per IRI Multi Model Probability Forecast for September to November precipitation is likely to be 45- 50% above normal for Central Island while its climatological in Northern and Southern. Temperature shall also most likely be above average during this period for all Maldives.

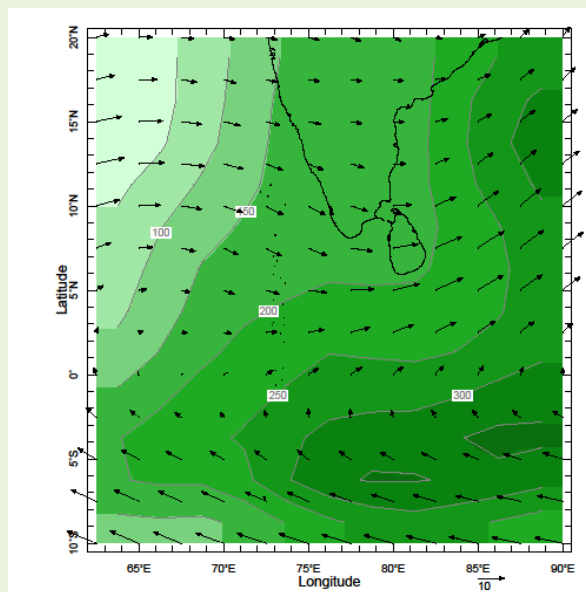
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 - e. Weekly Average SST Anomalies
3. Rainfall Predictions
 - a. Weekly Predictions from NOAA/NCEP
 - b. Seasonal Predictions from IRI¹

¹ International Research Institute for Climate and Society.

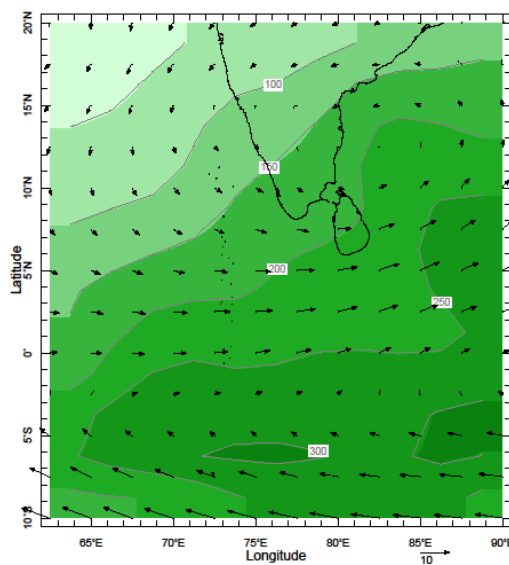
1). Monthly Climatology (CAM5-OPI):

a) Rainfall: Maps: September, October, November and December



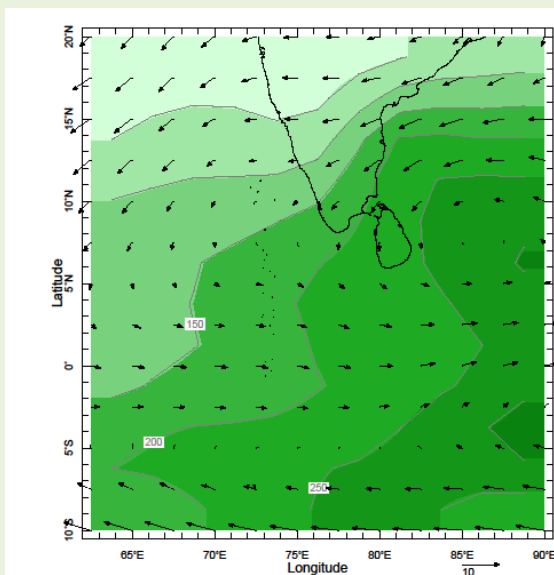
Time Sep Pressure 925.0 mb

September



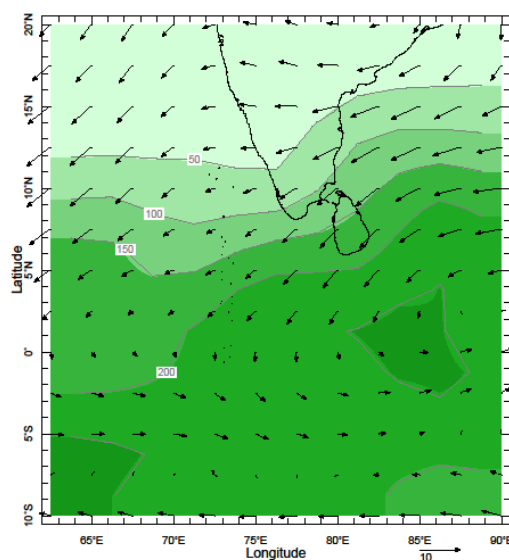
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October



Time Nov Pressure 925.0 mb

November

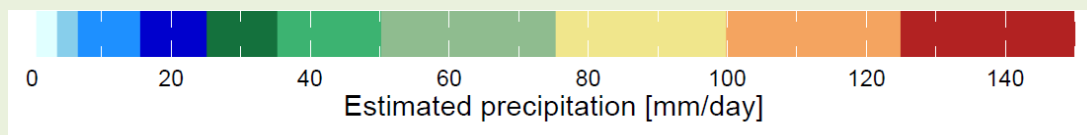
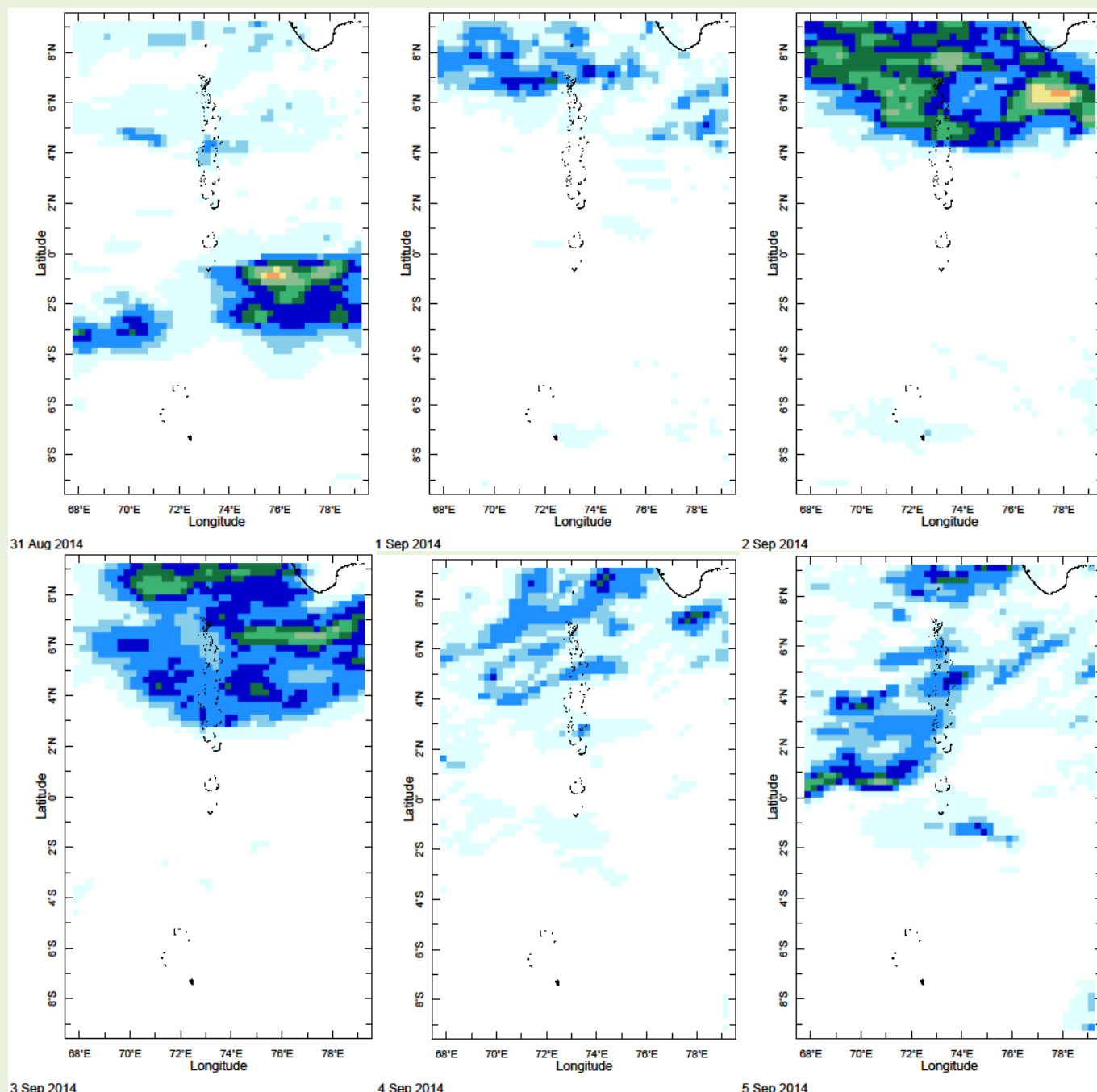


Time Dec Pressure 925.0 mb

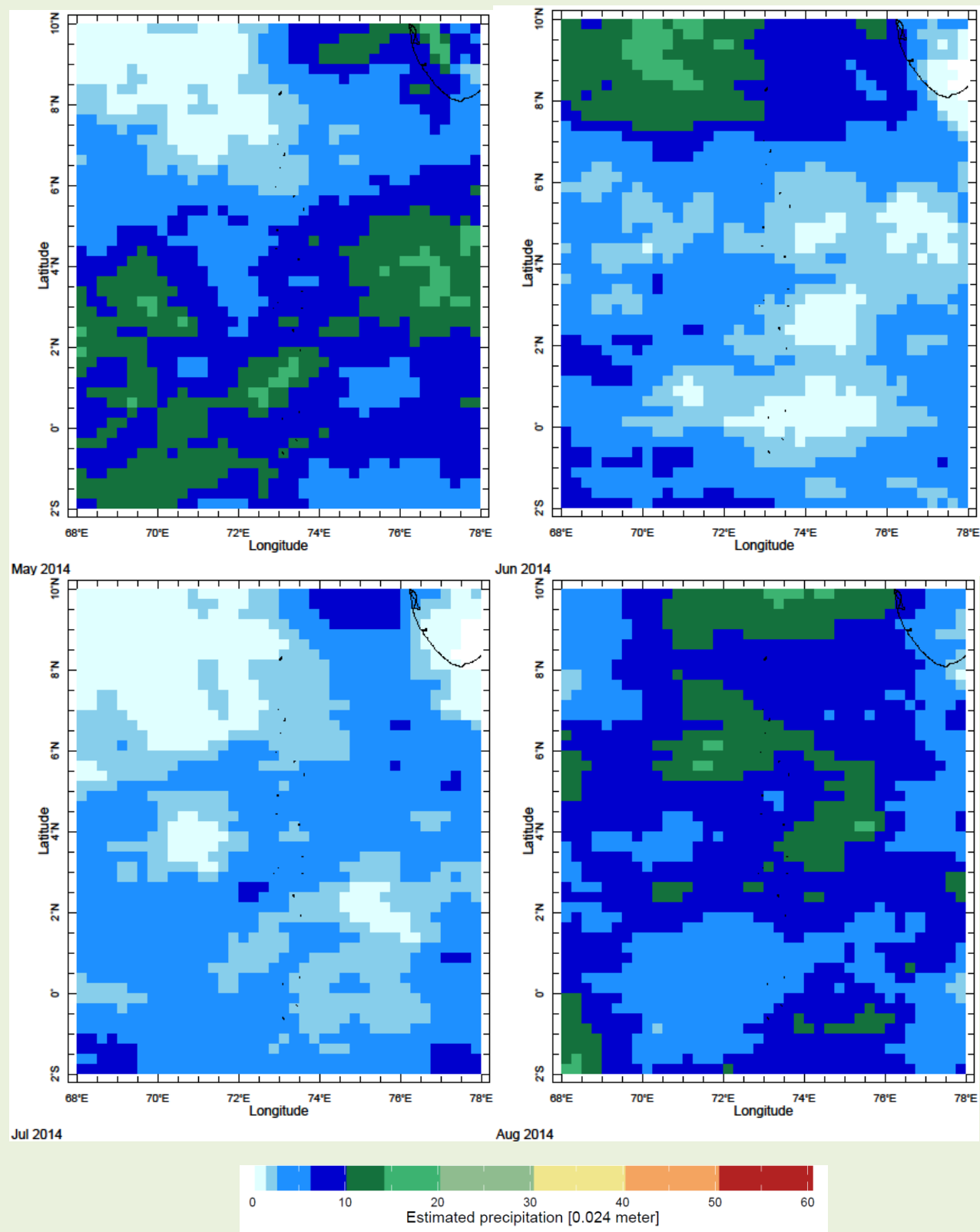
December

2) Rainfall Monitoring

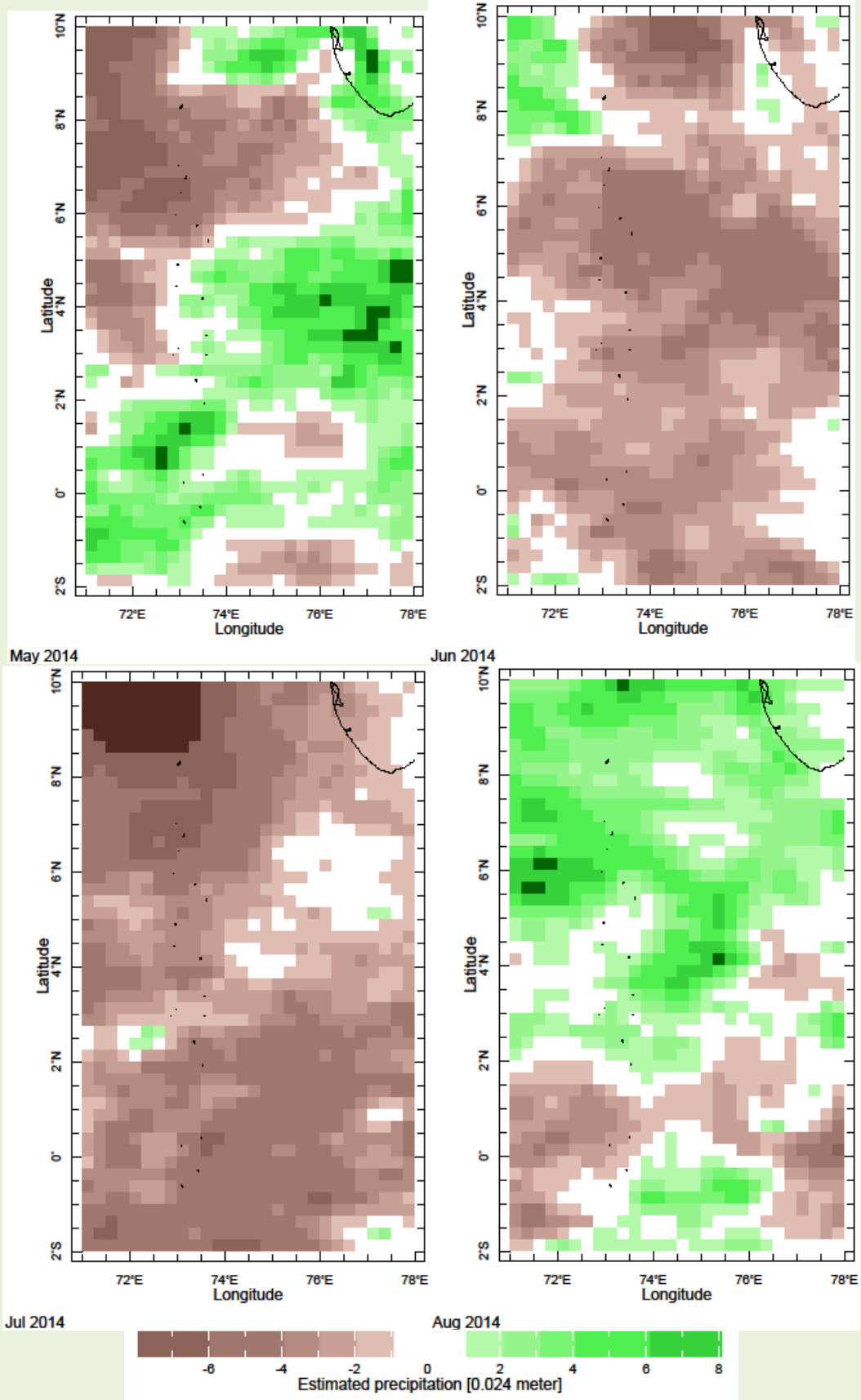
a) Daily Satellite Derived Rainfall Estimate Maps 31st August- 5th September, 2014 (Left-Right, Top-Bottom)



b) Monthly Rainfall (May- August 2014), Derived from Satellite Rainfall Estimates



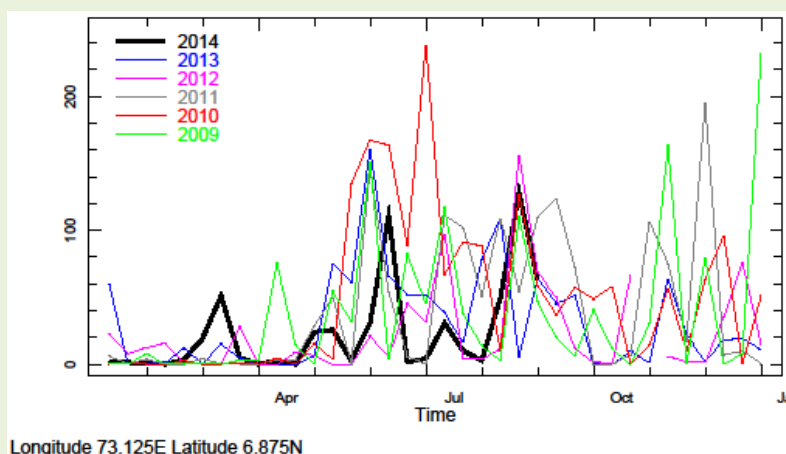
c) Monthly Average Precipitation Anomaly-May- August 2014



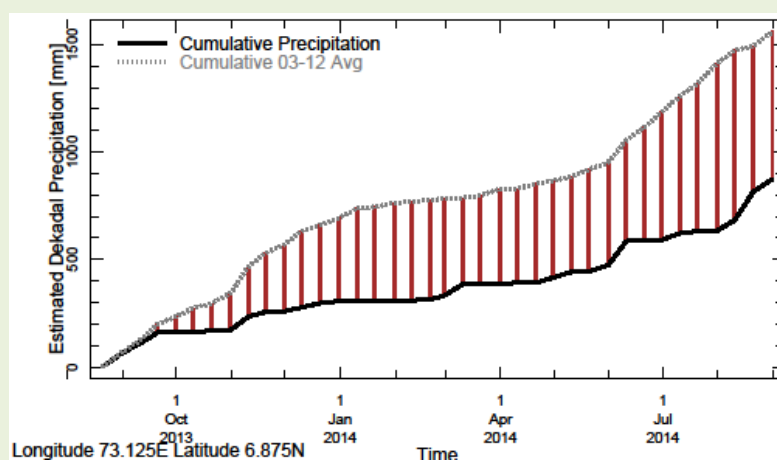
d) Seasonal to Annual Rainfall Monitoring

i) For Northern Maldives

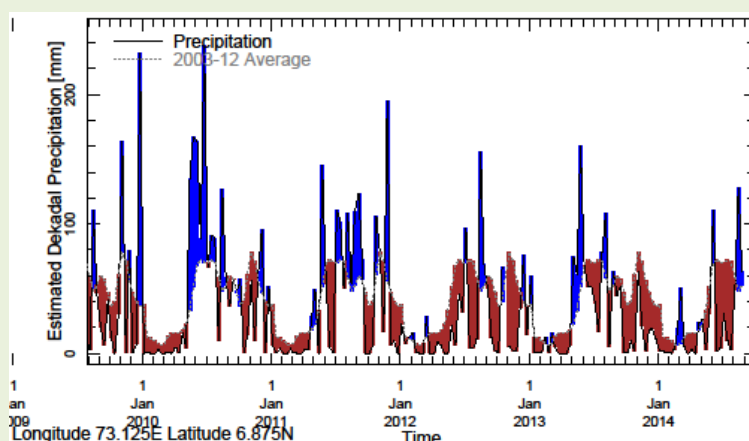
1) Rainfall in 2014 (black) compared to rainfall in previous 5 years



2) Rainfall of past 365 days (black) compared to average rainfall in previous 8 years.

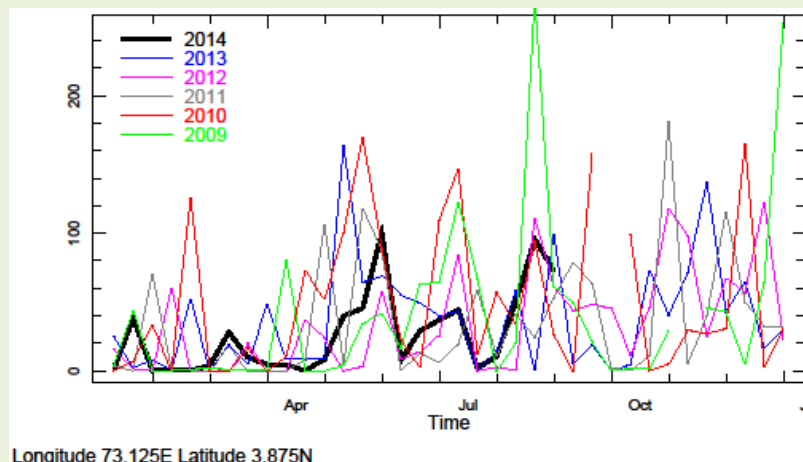


3) Rainfall for the past 5 years with above-average (compared to the last 8 years) hatched in blue and below normal in brown.

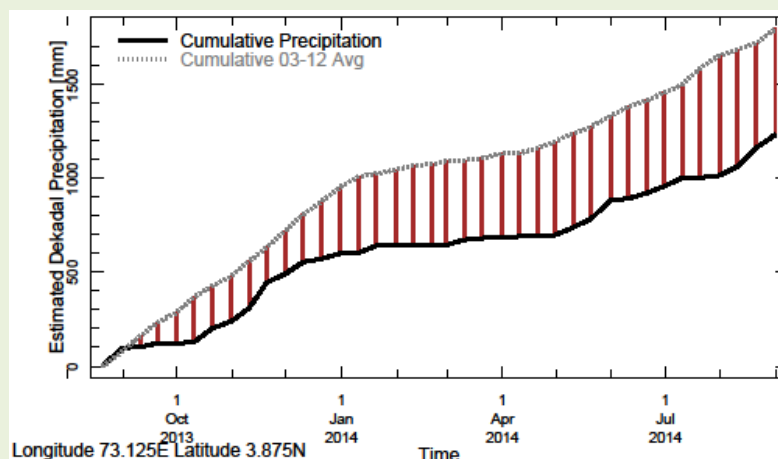


ii) For Central Maldives

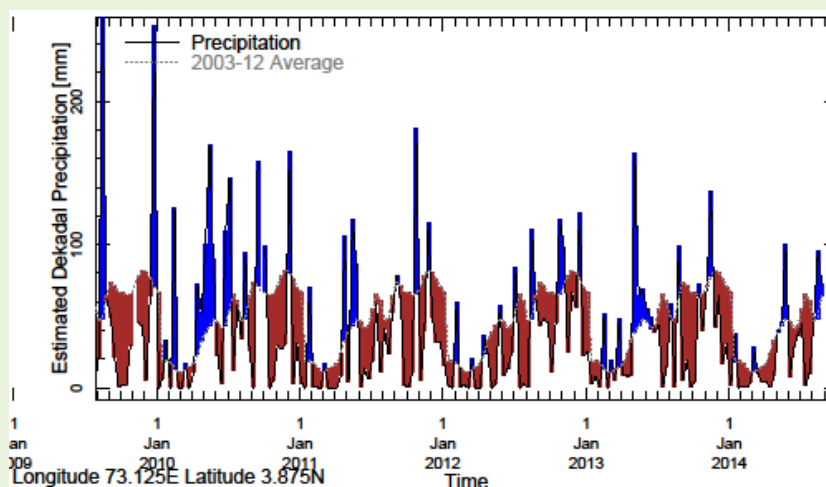
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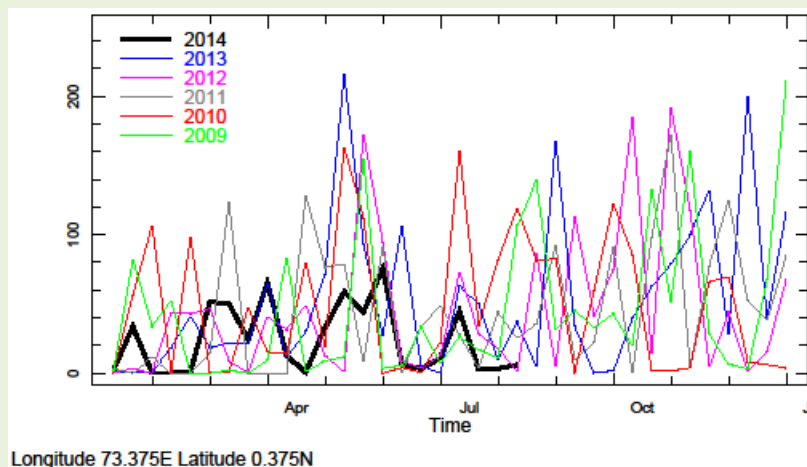


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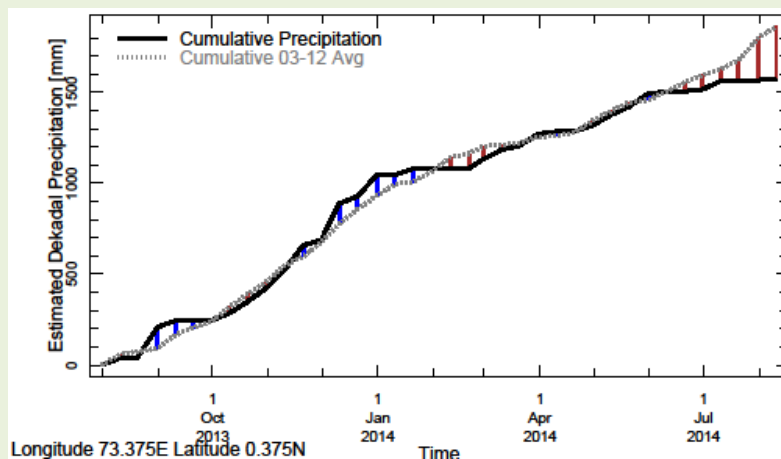


iii) For Southern Maldives

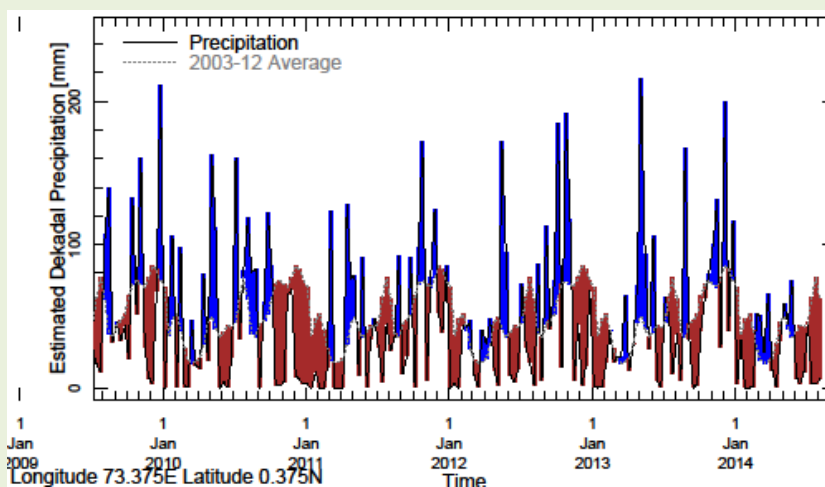
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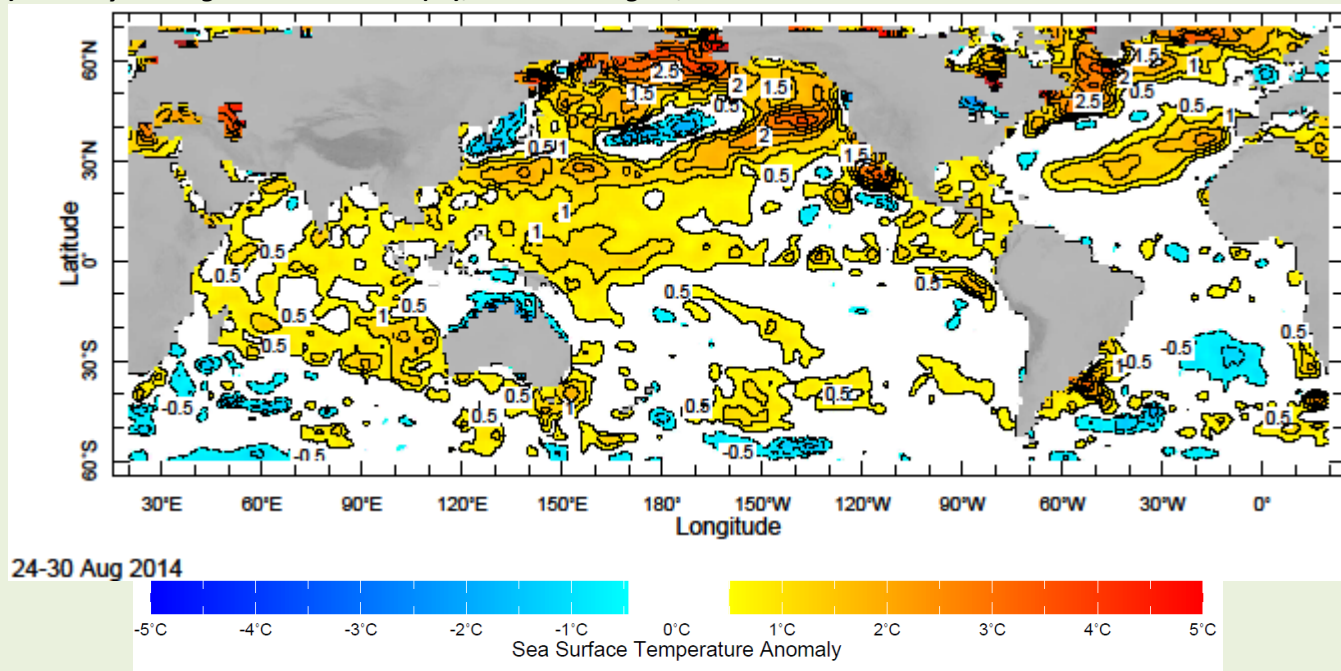
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3) Rainfall for the past 5 years with above-average (compared to the last 8 years) hatched in blue and below normal in brown.



e) Weekly Average SST Anomalies ($^{\circ}\text{C}$), 24th - 30th August, 2014

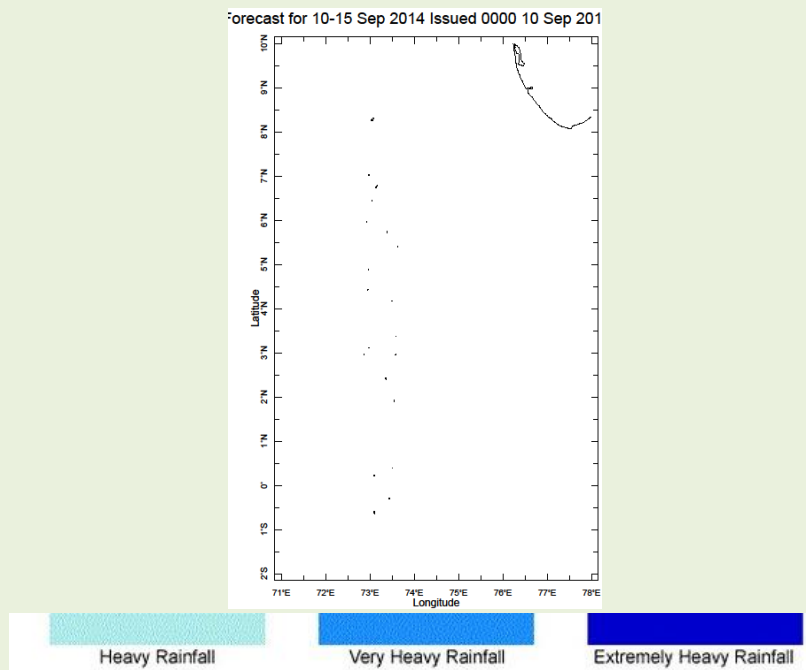


Data Source: NCEP, Environmental Monitoring Center

Base Period of Climatology: 1971- 2000

3). Predictions

a) Weekly Precipitation Forecast for 10th – 15th September, 2014: Issued 10th September, 2014



b) Seasonal Rainfall and Temperature Predictions from IRI

