

Experimental Climate Monitoring and Prediction for the Maldives

–November 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

23 November 2014

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PACIFIC SEAS STATE

November 20, 2014

During late October through early November the SST exceeded thresholds for weak Niño conditions, although only some of the atmospheric variables indicate an El Niño pattern. Most of the ENSO prediction models indicate weak El Niño conditions during the November-January season in progress, continuing well into the northern spring 2015.

(Text Courtesy IRI)

INDIAN OCEAN STATE

Nov 15, 2014

Neutral sea surface temperature was observed around Maldives.

Highlights²

Up to 100 mm rainfall was observed in Central to Northern islands of Maldives in the first three weeks of November 2014. Extremely heavy rainfall is expected to continue during the next week in the same region as well as in the north-eastern sea of The Maldives. Despite this heavy rainfall, the precipitation received has not been enough to shrink the rainfall deficit persisted for several months.

Summary²

CLIMATOLOGY

Monthly Climatology: During 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, December and January. In February the rainfall further decreases in the entire Maldives.

MONITORING

Weekly Monitoring: During 16th – 21st November the entire country received rainfall. Central islands received up to 100 mm rainfall while very heavy rainfall was observed in the sea around Maldives as well. Northern and Southern islands received up to 80 mm rainfall during this period.

Monthly and Seasonal Monitoring: During October a decreasing trend of rainfall was observed in Northern, Central and Southern islands of Maldives. But this downward trend has reversed during the first three weeks of November. The rainfall deficit observed in Maldives persists.

PREDICTIONS

Weekly Rainfall Forecast: According to NOAA models, extremely heavy rainfall is expected during 22nd - 27th November in Northern and Southern Maldives as well as in the sea North-east of the country.

Seasonal Rainfall and Temperature Prediction: As per IRI Multi Model Probability Forecast for November to January precipitation and temperature is likely to be 45- 50% above normal for Central Islands while its climatological in Northern and Southern.

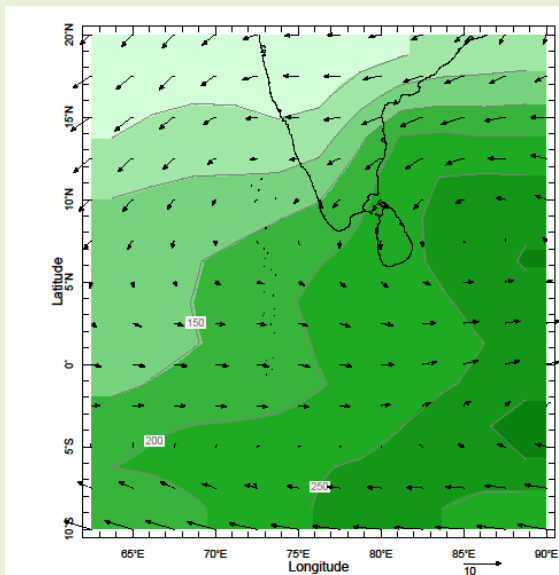
Inside this Issue

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3. Rainfall Predictions
 - a. Weekly Predictions from NOAA/NCEP
 - b. Seasonal Predictions from IRI¹

¹ International Research Institute for Climate and Society.

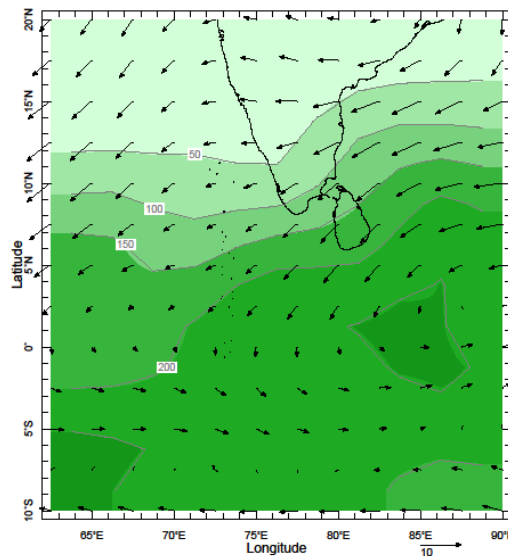
1). Monthly Climatology (CAM5-OPI):

a) Rainfall: Maps: November, December, January and February



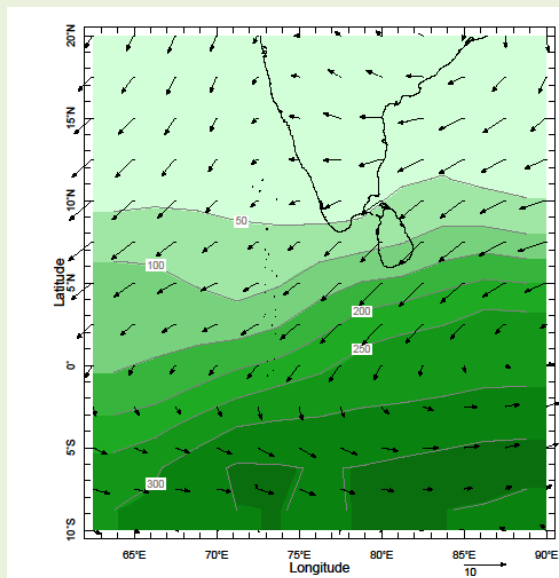
Time Nov Pressure 925.0 mb

November



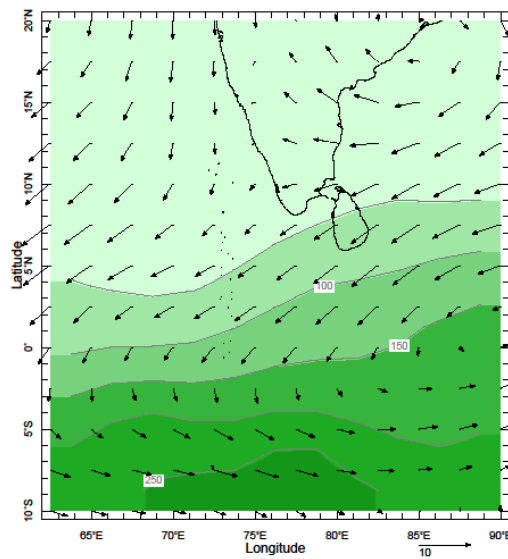
Time Dec Pressure 925.0 mb

December



Time Jan Pressure 925.0 mb

January

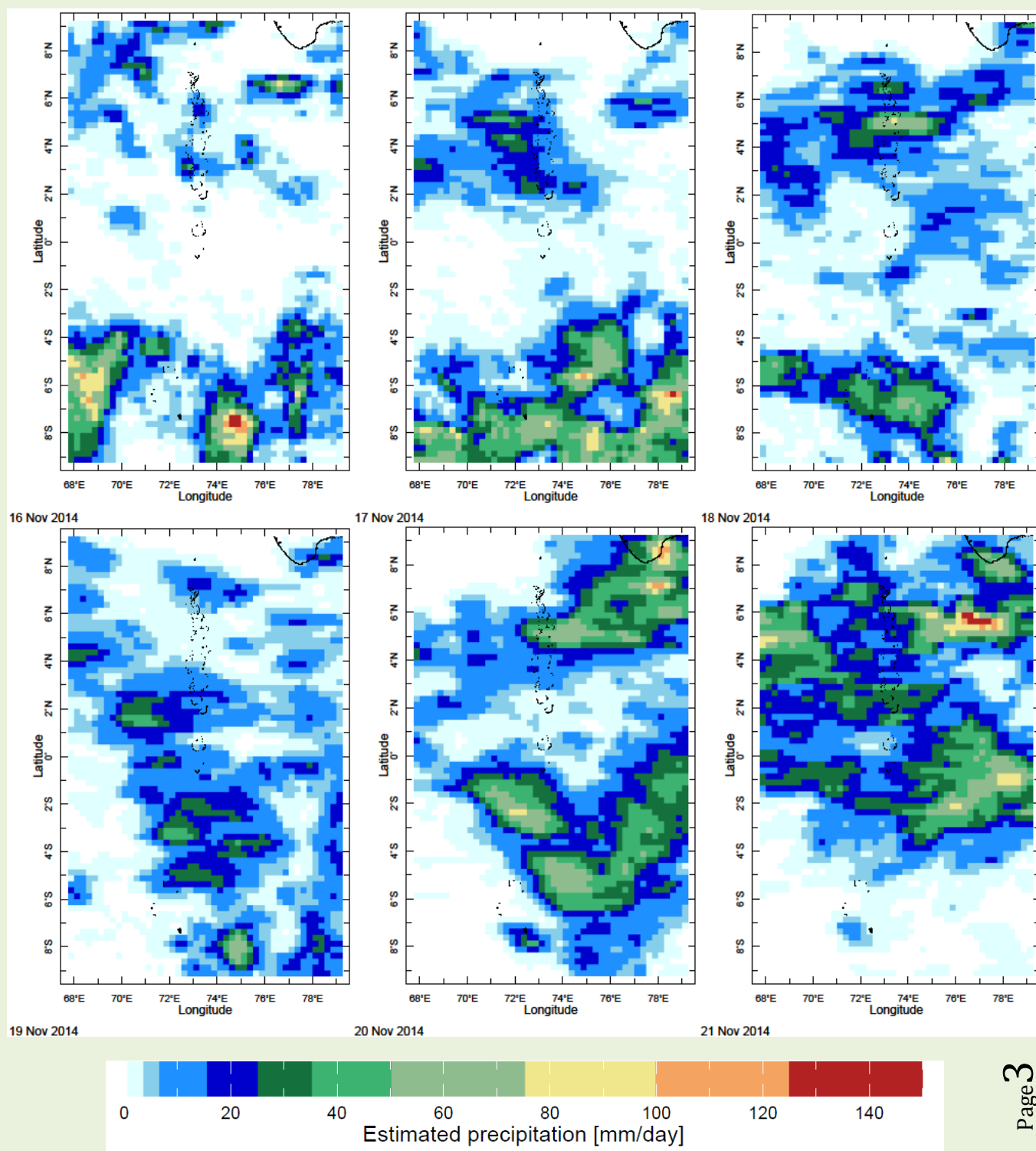


Time Feb Pressure 925.0 mb

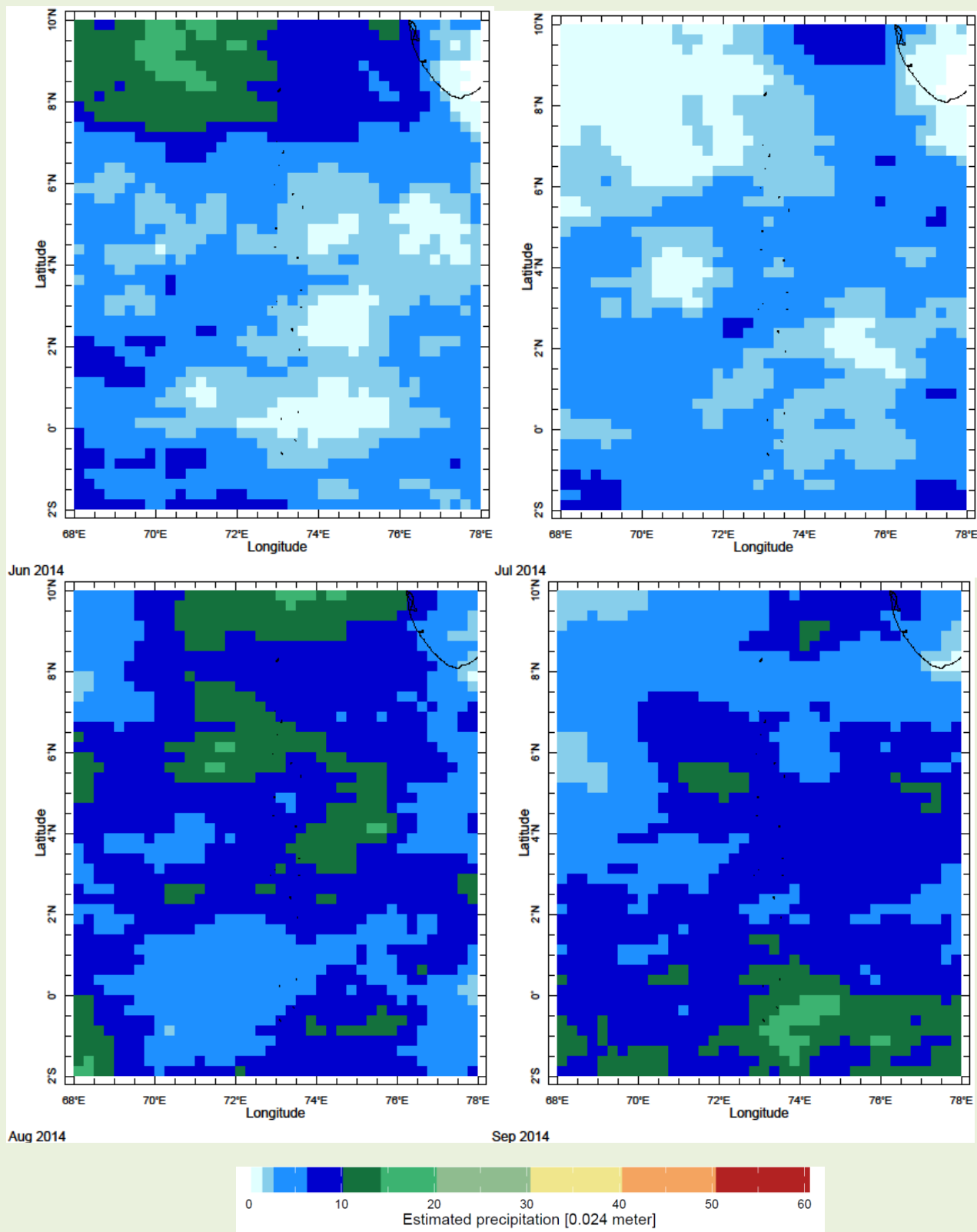
February

2) Rainfall Monitoring

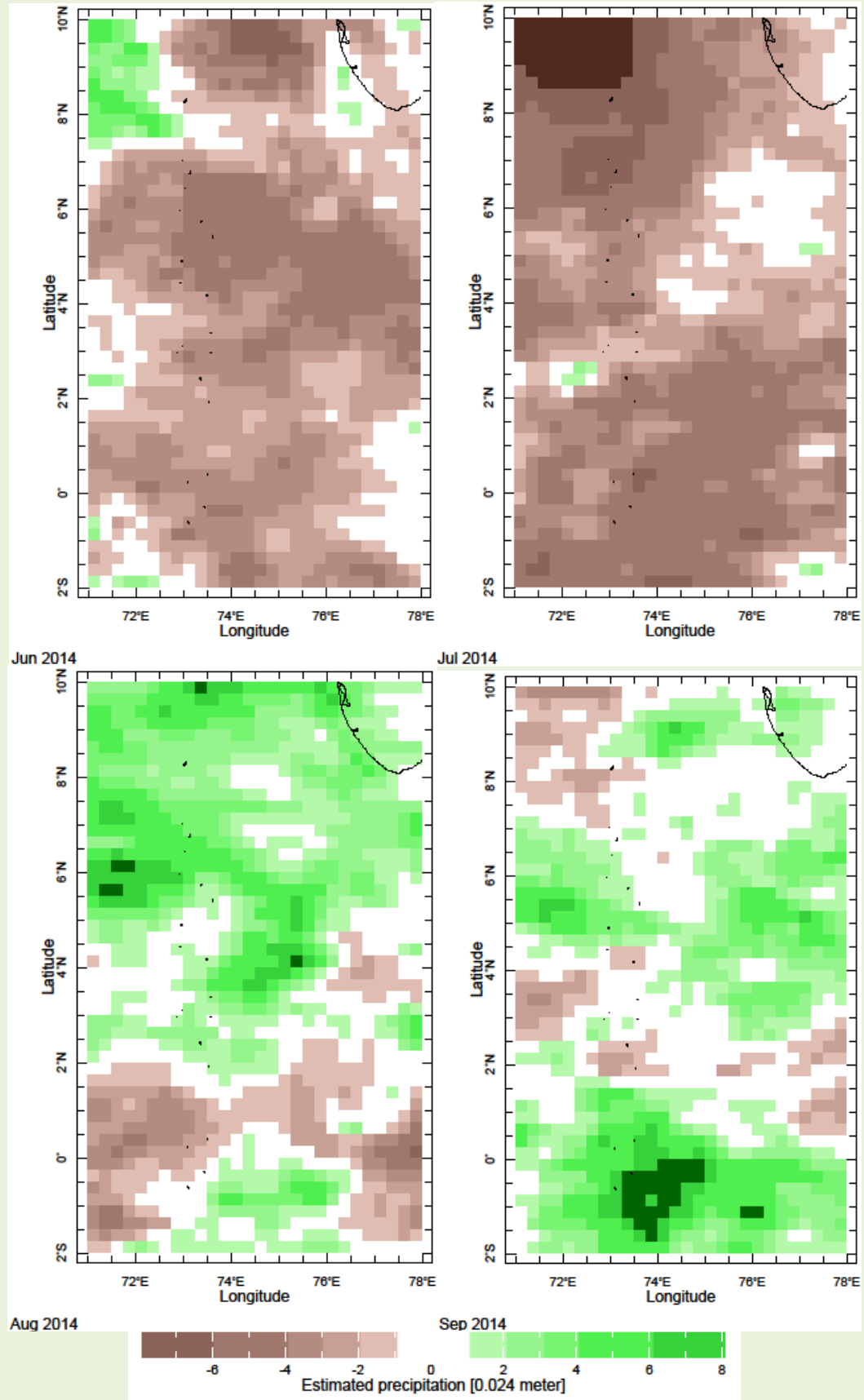
a) Daily Satellite Derived Rainfall Estimate Maps 16th – 21st November, 2014 (Left-Right, Top-Bottom)



b) Monthly Rainfall (June- September 2014), Derived from Satellite Rainfall Estimates



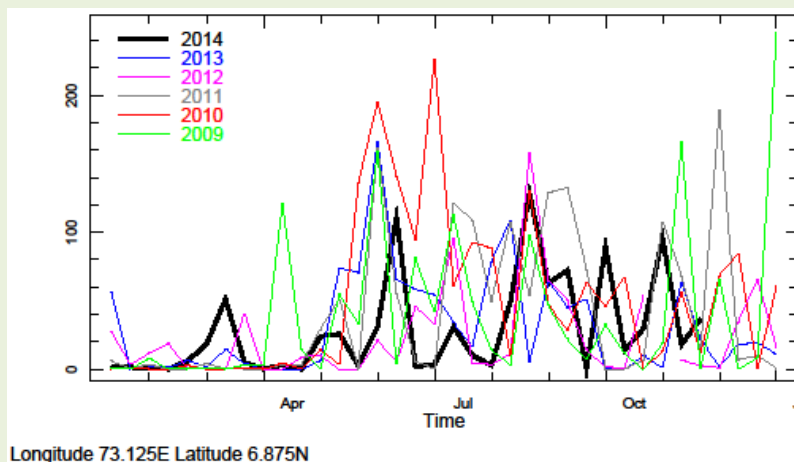
c) Monthly Average Precipitation Anomaly June- September 2014



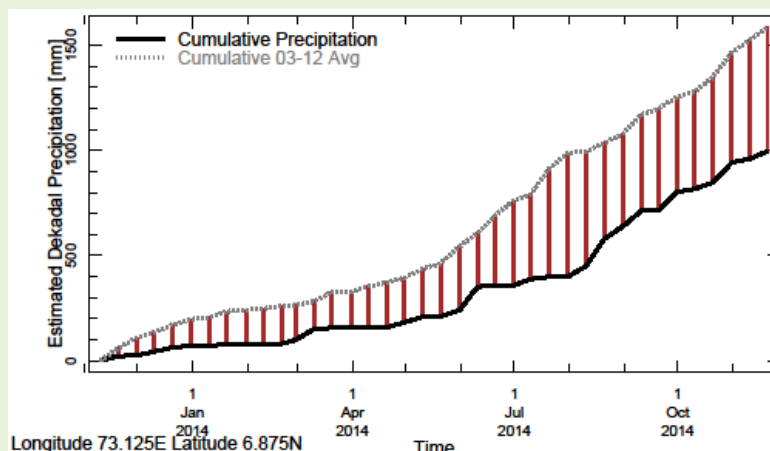
d) Seasonal to Annual Rainfall Monitoring

i) For Northern Maldives

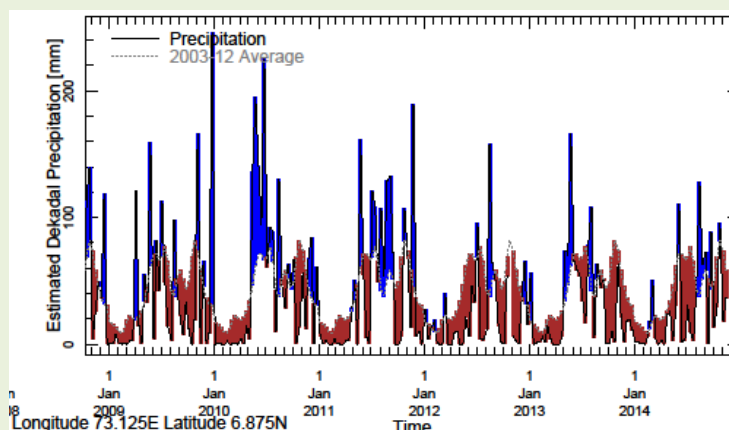
1) Rainfall in 2014 (black) compared to rainfall in previous 5 years



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

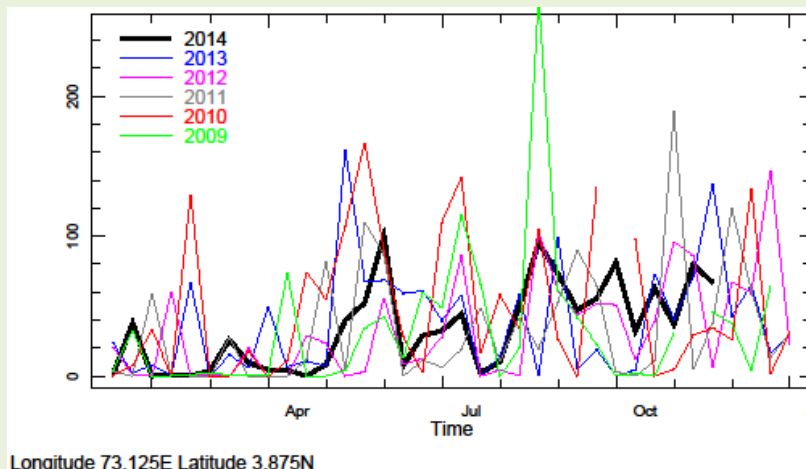


3) Rainfall for the past 5 years with above-average (compared to the last 8 years) hatched in blue and below normal in brown.

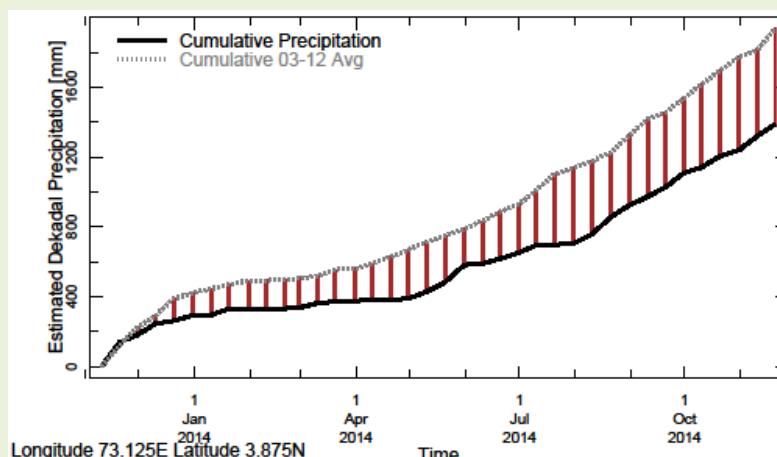


ii) For Central Maldives

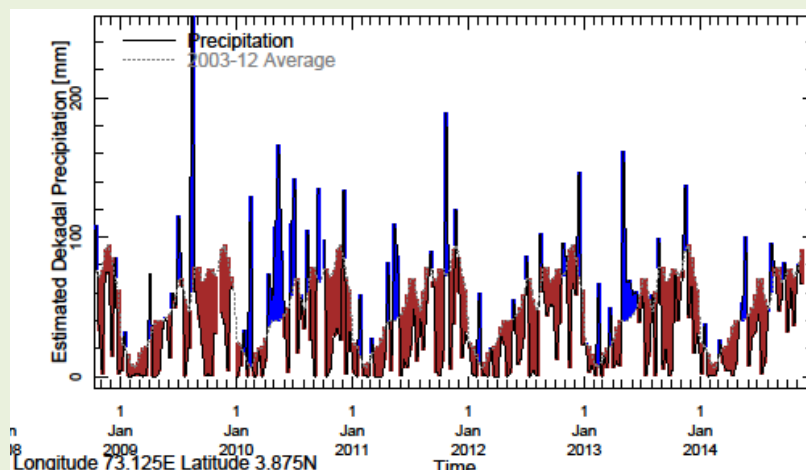
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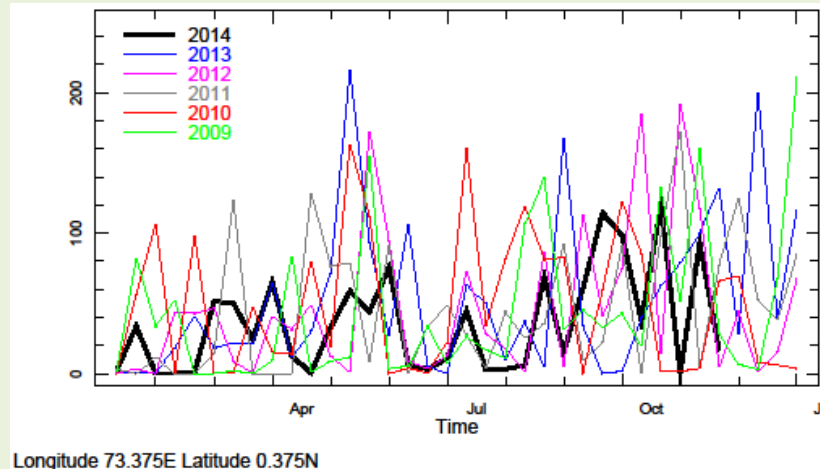


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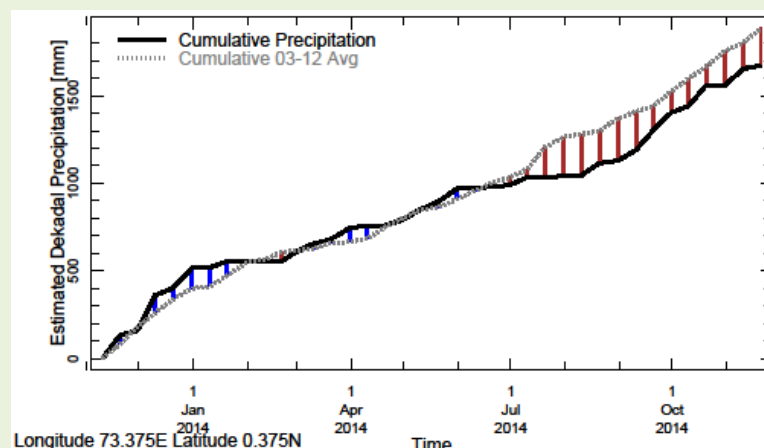


iii) For Southern Maldives

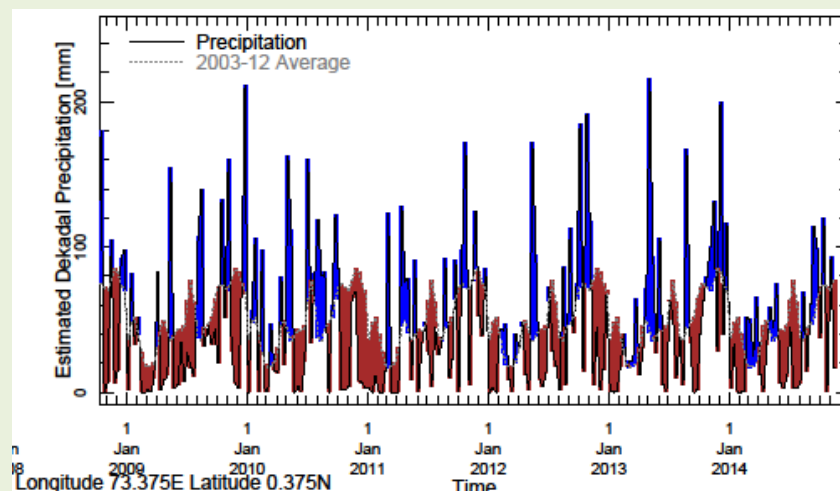
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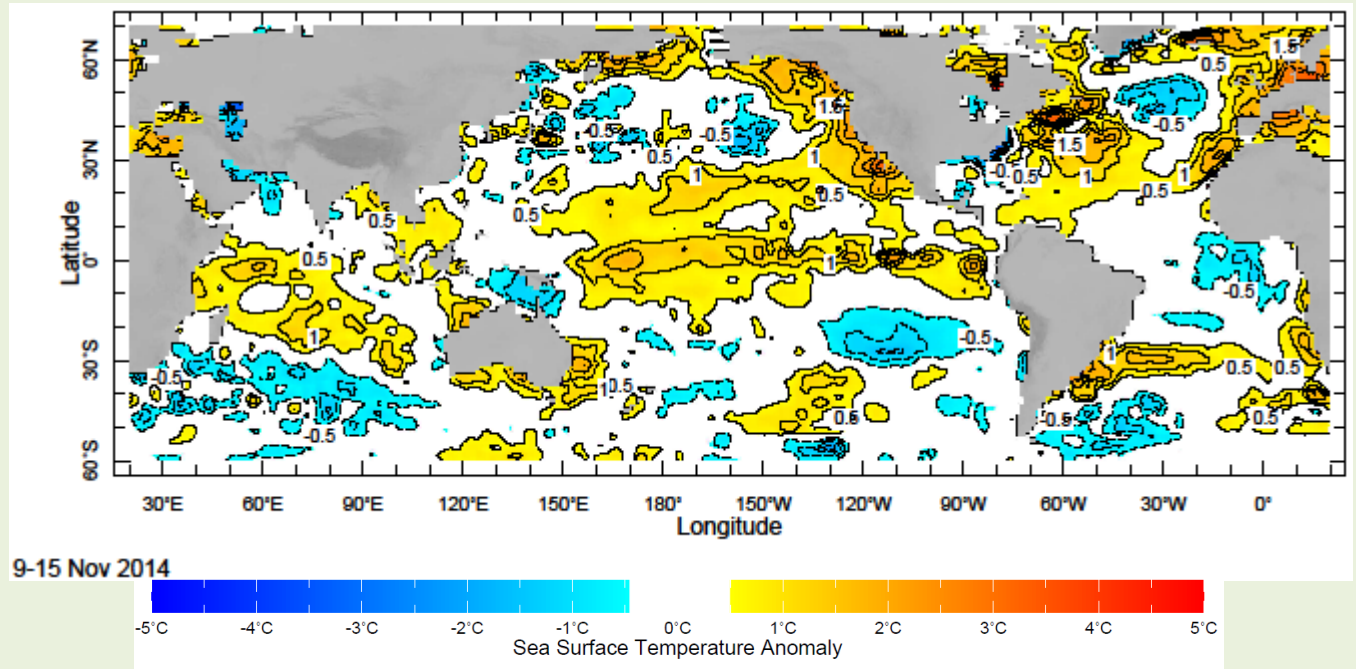
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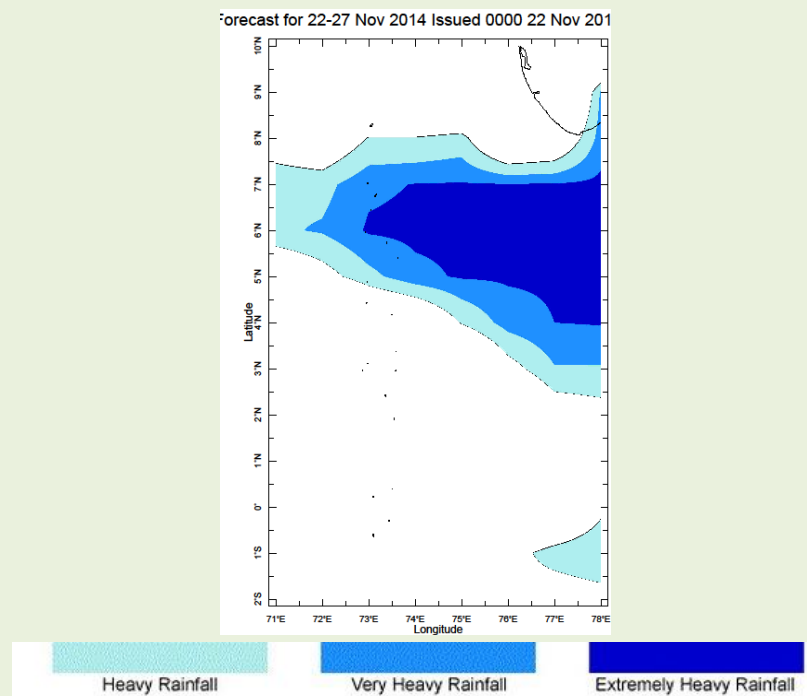
e) Weekly Average SST Anomalies ($^{\circ}\text{C}$), 9th - 15th November, 2014



Data Source: NCEP, Environmental Monitoring Center
Base Period of Climatology: 1971- 2000

3). Predictions

a) Weekly Precipitation Forecast for 22nd- 27th November, 2014: Issued 22nd November, 2014



b) Seasonal Rainfall and Temperature Predictions from IRI

