FECT Foundation for Environment Climate and Technology

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Experimental Climate Monitoring and Prediction for the Maldives –January 2013

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 January 2013

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www.tropicalclimate.org/ maldives

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PACIFIC SEAS STATE

January 17, 2013

Most of the ENSO prediction models predict neutral ENSO conditions through the first half of 2013. During early January the observed SST conditions have become below average, but in the neutral range

(Text Courtesy IRI)

INDIAN OCEAN STATE

January 17, 2013

In the Pacific, the El Nino state has weakened to neutral although there is weak warming remnant in the El Nino index areas. The unusually warmer sea surfaces of the Arabian Sea/Central Western and South-Eastern Indian Ocean remain. **Highlights²** December 2012 has been a dry month for all of Maldives. The rainfall deficit compared to the last 8 year's average has been growing for all Northern, Central and Southern islands of Maldives. Dry conditions are expected to be sustained during January. There is a higher than average chance of above normal precipitation in Central Maldives from February to April. The chances of above normal temperature, when the January to March period is taken in aggregate, is higher than normal throughout Maldives particularly in the Central Region.

Summary²

CLIMATOLOGY

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Monthly Climatology: The climatology refers to the average conditions experienced historically for a given month. Usually the climatology is a good guide to what one may expect in a given month absent other information. The historical average rainfall for the Northern islands is high in July (200-250 mm), higher in August (250- 300 mm) and drops in September & October (100- 200 mm). In the Central islands rainfall is usually moderate (150- 200 mm) during the August – October period. Heavy rainfall is typical for the Southern islands during these four months. The winds over the Northern & Central islands are usually westerly (from West to East) and wind speeds are expected to be high. For Southern islands, low wind speeds are expected for July and August but stronger westerly winds in September and October.

MONITORING

Weekly Monitoring: From 10th to 15th of January 2013, light rainfall was observed on the 14th of January on Northern Islands of Maldives. Apart from that no rainfall was observed during this time period.

Monthly and Seasonal Monitoring: Dry conditions persist throughout Maldives. Rainfall deficit compared to the average of past 8 years continues to increase for the whole country.

Sea Surface Temperatures and ENSO state: In the Pacific, the El Nino state has weakened to neutral although there is weak warming remnant in the El Nino index areas. The unusually warmer sea surfaces of the Arabian Sea/Central Western and South-Eastern Indian Ocean remain although it has weakened.

PREDICTIONS

Weekly Rainfall Forecast: Extreme rainfall events are not expected during 22nd to 27th of January.

Seasonal Rainfall and Temperature Prediction: As per IRI Multi Model Probability Forecast for February to May 2013, aggregate precipitation shall be 50- 60% above normal in Central Maldives. Furthermore, there is a 50- 70% probability for Temperature to be above normal.

Inside this Issue

- **1.** Monthly Climatology
- 2. Rainfall Monitoring
 - a. Daily Satellite derived Rainfall Estimates
 - b. Monthly Rainfall derived from Satellite Rainfall Estimate
 - c. Monthly and Seasonal Monitoring
 - d. 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.

² These interpretations of climatic conditions are an experimental product. Please consult with the Maldives Meteorological Services for advice on interpretation.

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1). Monthly Climatology (CAMS-OPI):

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a) Rainfall: Maps: January, February, March, April (Left-Right)

Time Jan Pressure 925. mb

January







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2) Rainfall Monitoring





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b) Monthly Rainfall (September to December 2012), Derived from Satellite Rainfall Estimates



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c) Seasonal to Annual Rainfall Monitoring

i) For Northern Maldives

1) Rainfall in 2013 (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



1) Rainfall in 2013 (black) compared to rainfall in previous 5 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.





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iii) For Southern Maldives

Website



1) Rainfall in 2013 (black) compared to rainfall in previous 5 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.



d) Weekly Average SST Anomalies (⁰C), 6th -12th January, 2013



Base Period of Climatology: 1971-2000

3). Predictions



a) Weekly Precipitation Forecast for 22nd - 27th January, 2013: Issued 22nd January, 2013



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b) Seasonal Rainfall and Temperature Predictions from IRI



IRI Multi-Model Probability Forecast for Precipitation for March-April-May 2013, Issued January 2013



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b) Seasonal Climate Predictions (IRI) continued



