

Climate Monitoring and Prediction for the Maldives – April 2019

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May 27, 2019

PACIFIC SEAS STATE

April 19, 2018

SSTs in the tropical Pacific maintained a weak El Niño level during March and early April, while temperature anomalies of subsurface waters decreased somewhat but continued to be positive. Patterns in the atmosphere show weak El Niño conditions. Collective model forecasts show a continuation of at least weak El Niño-level SSTs lasting through 2019.

(Text Courtesy IRI)

INDIAN OCEAN STATE

May 15, 2019

1 °C above average SST was observed around Maldives.

MJO INDEX

The MJO was significant in Phase 2 from Apr 21-23; in Phase 3 from Apr 24-27; and in Phase 4 from Apr 28-30. Usually rainfall in Maldives is augmented in Phase 2.



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Highlights

Monitored: During April, northern parts of the country received rainfall above than is normal for the season by more than 100 mm; and central and southern islands received normal rainfall. The northern islands received up to 300 mm of total rainfall; and central and southern islands up to 210 mm. The sea surface temperature around Maldives was 1 °C above normal. This is extremely warm.

Predictions: IMD GFS model predicts up to 40 mm of rainfall in the central islands and up to 20 mm in the southern and northern islands on May 27th. On the 28th, rainfall up to 70 mm is expected in central islands and up to 40 mm in the southern and northern islands. On the 29th, rainfall up to 40 mm of is expected in the southern islands and up to 20 mm in the central and northern islands. Long Range Weather prediction models simulations anticipate total rainfall up to 75 mm for the central parts of the country next week.

Summary

CLIMATOLOGY

Monthly Climatology: In April, central and southern islands received rainfall up to 180 mm above the monthly average; and the northern islands up to 90 mm below the average. The northern islands received up to 150 mm of total rainfall; central and southern islands up to 450 mm.

MONITORING

Weekly Rainfall Monitoring:

Date	Rainfall
19 th April	Up to 20 mm in northern and central islands.
20 th April	Up to 50 mm in northern and central islands and up to 20 mm in southern islands.
21 st April	Up to 50 mm in southern islands.
22 nd – 28 th April	No Rainfall.
29 th April	Up to 10 mm in northern islands.
30 th April	Up to 50 mm in northern islands.
1 st May	Up to 20 mm in northern islands.
2 nd May	Up to 30 mm in northern islands.
3 rd May	Up to 20 mm in northern and central islands.

Monthly and Seasonal Rainfall Monitoring: In April, southern and central islands received normal rainfall for the season; and northern islands received up to 100 mm rainfall above than normal. The northern islands received up to 300 mm of total rainfall; central and southern islands up to 210 mm.

PREDICTIONS

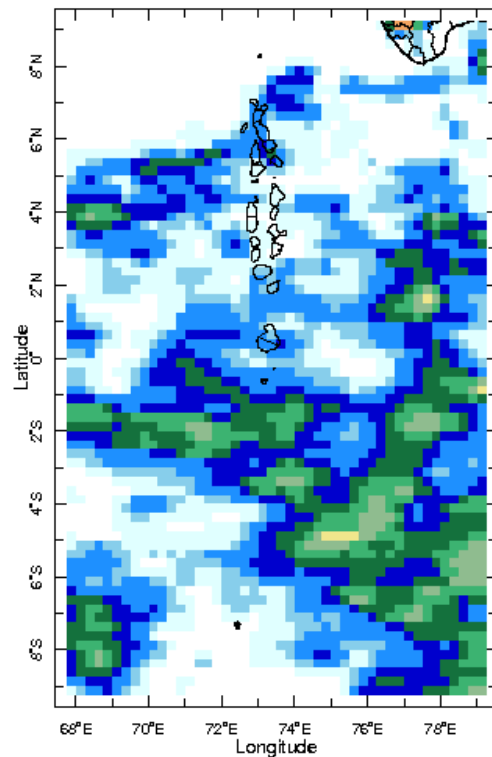
Weekly Rainfall Forecast: According to IMD GFS rainfall up to 40 mm of is expected in the central islands and up to 20 mm in the southern and northern islands on May 27th. On the 28th, rainfall up to 70 mm is expected in central islands and up to 40 mm in the southern and northern islands. On the 29th, rainfall up to 40 mm of is expected in the southern islands and up to 20 mm in the central and northern islands. On the 30th, rainfall up to 40 mm is expected in the central islands and up to 10 mm in the southern islands. On June 1st rainfall up to 20 mm is expected in the central and northern islands and up to 10 mm in the southern islands. On the 2nd rainfall up to 40 mm is expected in the northern islands and up to 10 mm in the central islands. On the 3rd rainfall up to 40 mm is expected in the northern islands and up to 10 mm in the central and southern islands.

Inside this Issue

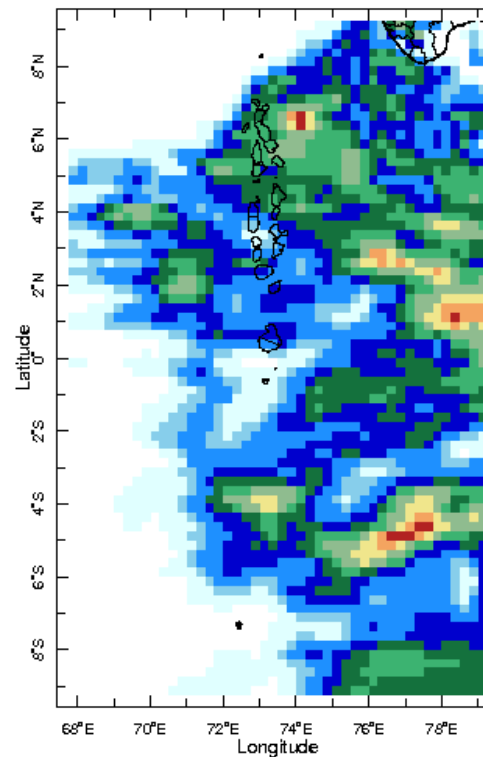
1. Rainfall Monitoring
 - a. Daily Satellite derived Rainfall Estimates
 - b. Monthly Rainfall derived from Satellite Rainfall Estimate
 - c. Monthly and Seasonal Monitoring
2. Ocean Surface Monitoring
3. Rainfall Predictions
 - a. Weekly Predictions from NOAA/NCEP
 - b. Seasonal Predictions from IRI¹

Daily Rainfall Monitoring

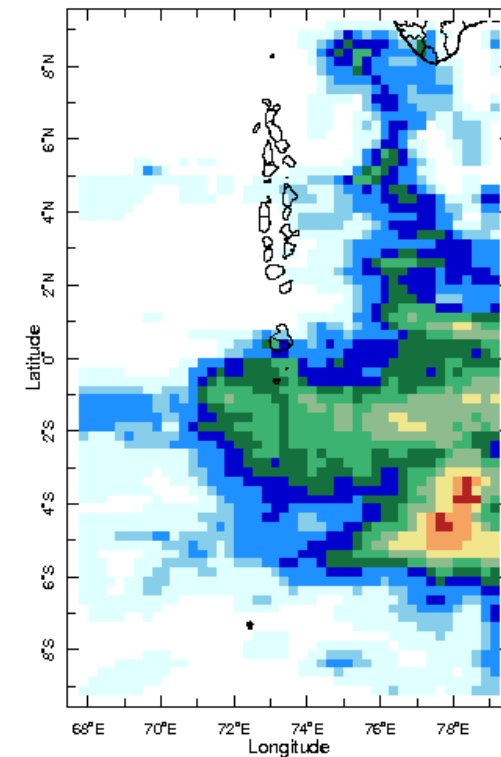
The following figures show the observed rainfall in the last 15 days in Maldives.



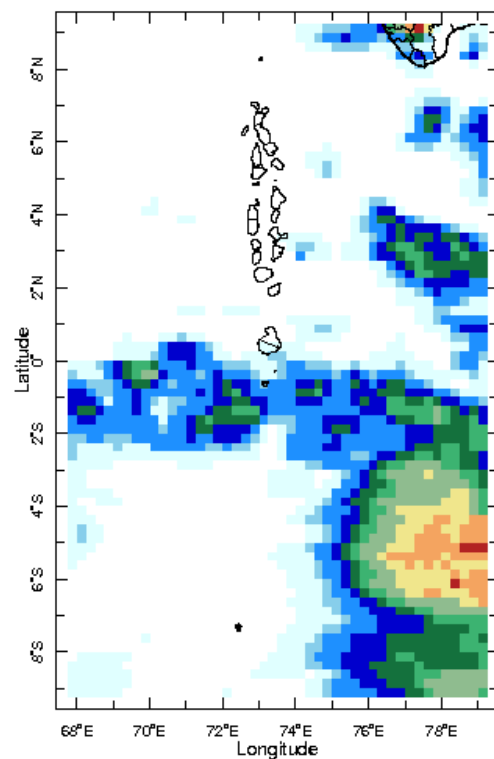
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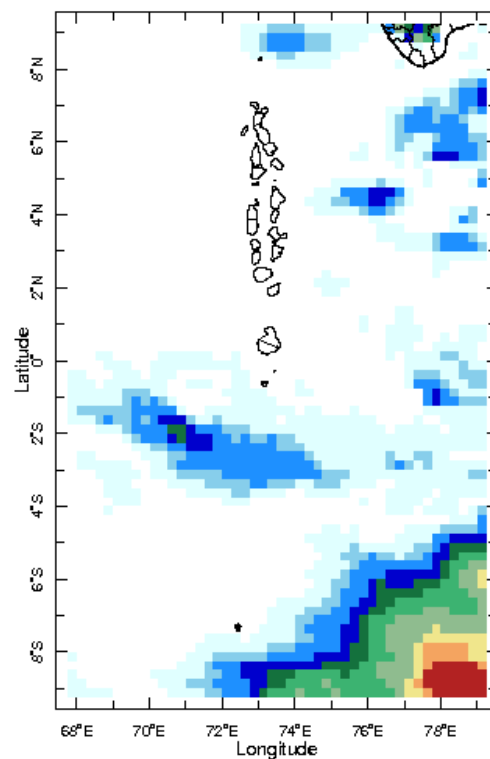
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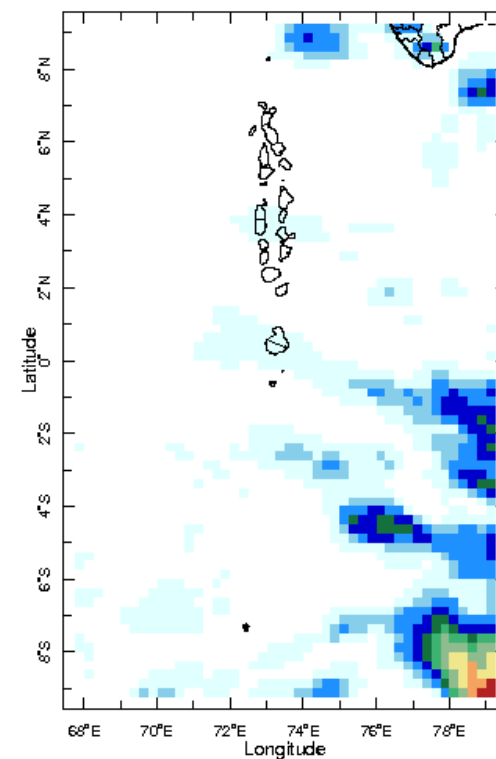
21 Apr 2019



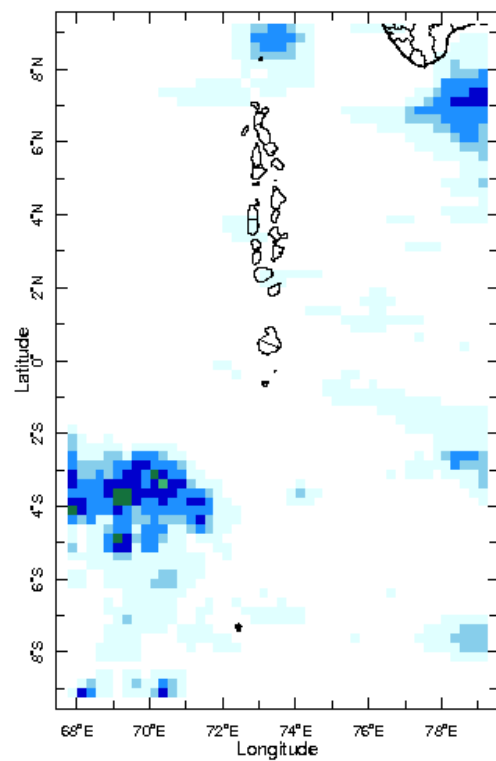
22 Apr 2019



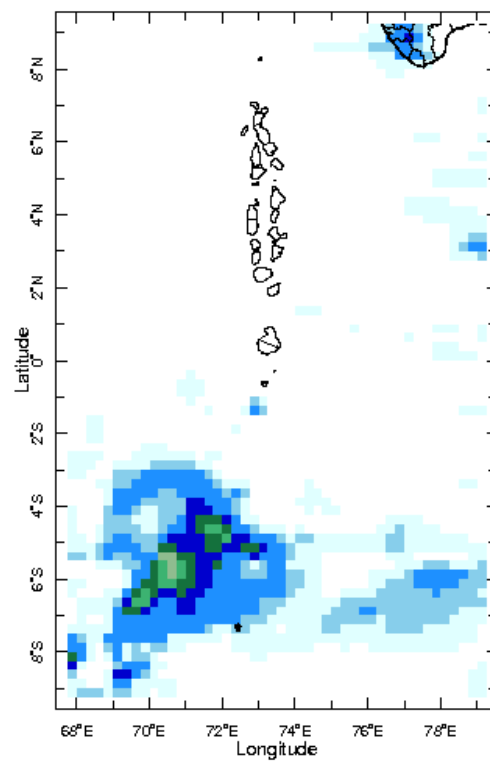
23 Apr 2019



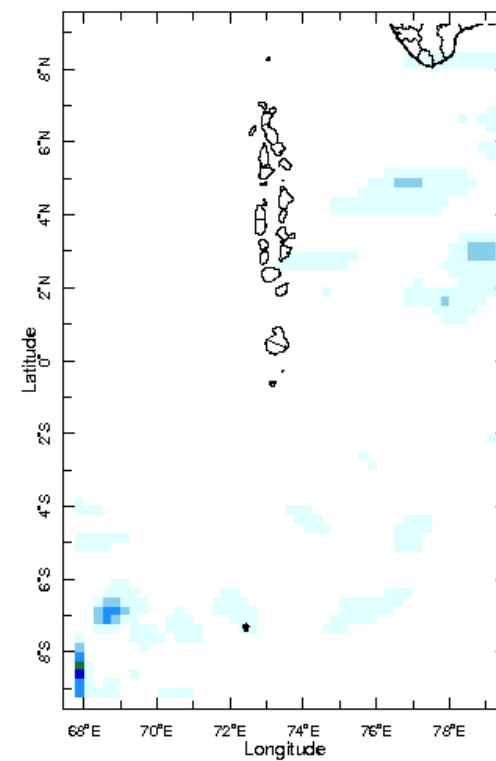
24 Apr 2019



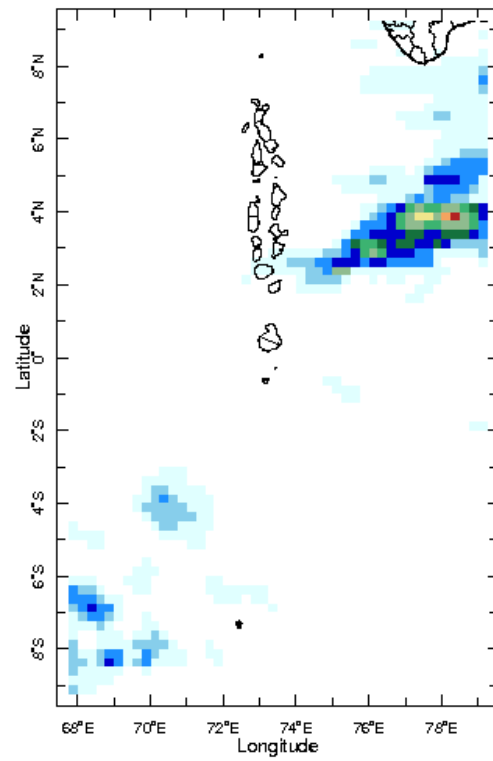
25 Apr 2019



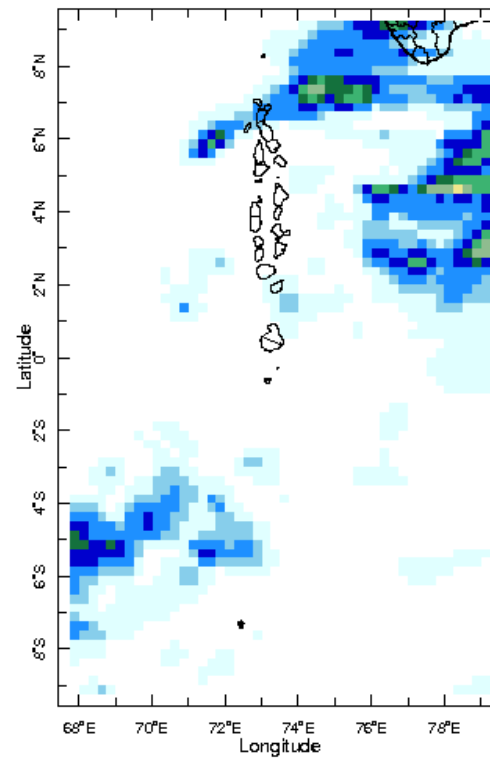
26 Apr 2019



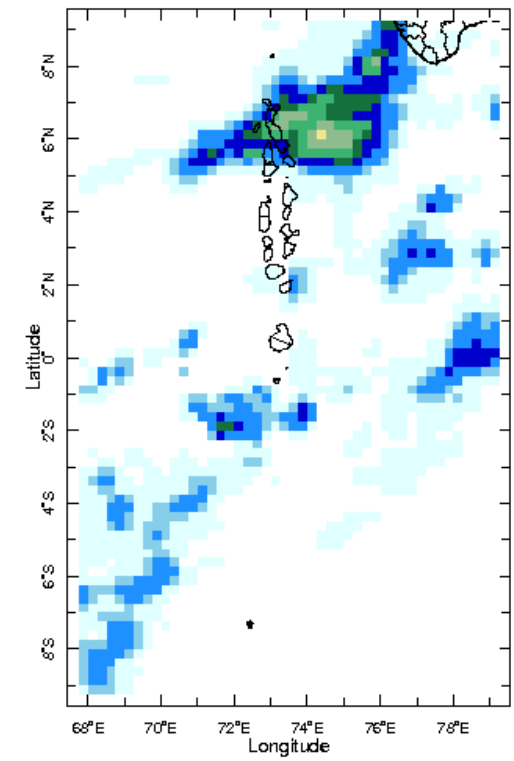
27 Apr 2019



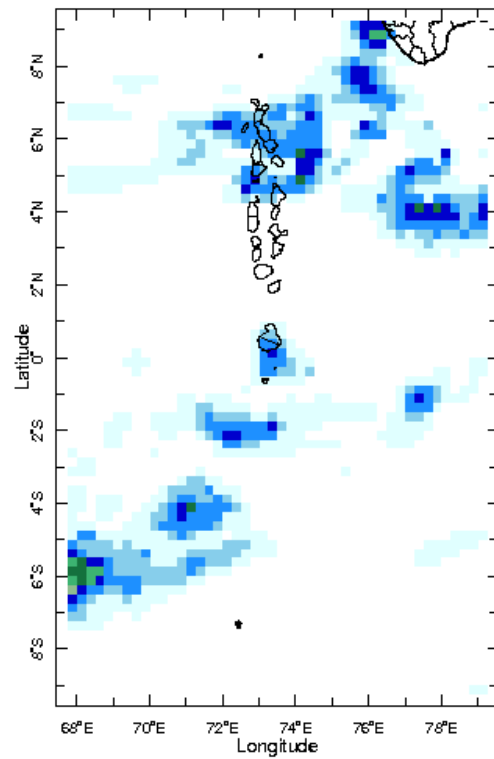
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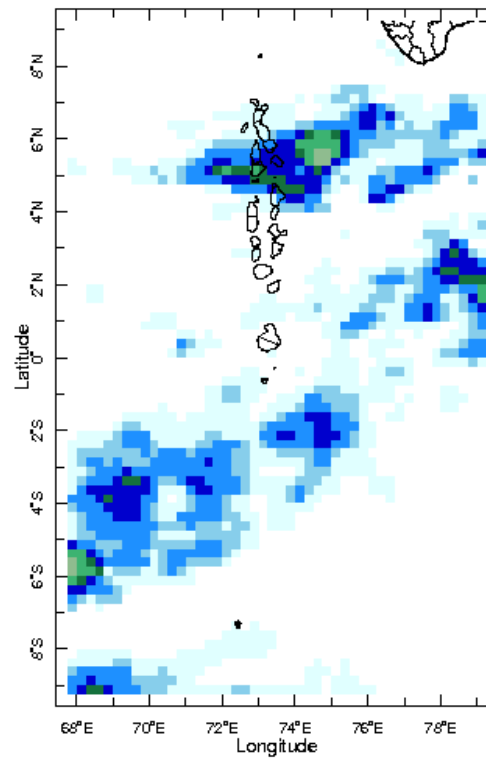
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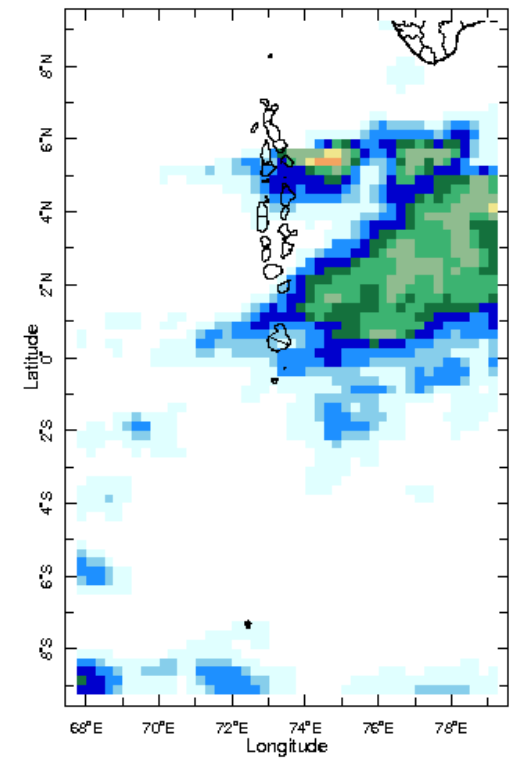
30 Apr 2019



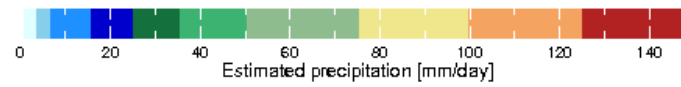
1 May 2019

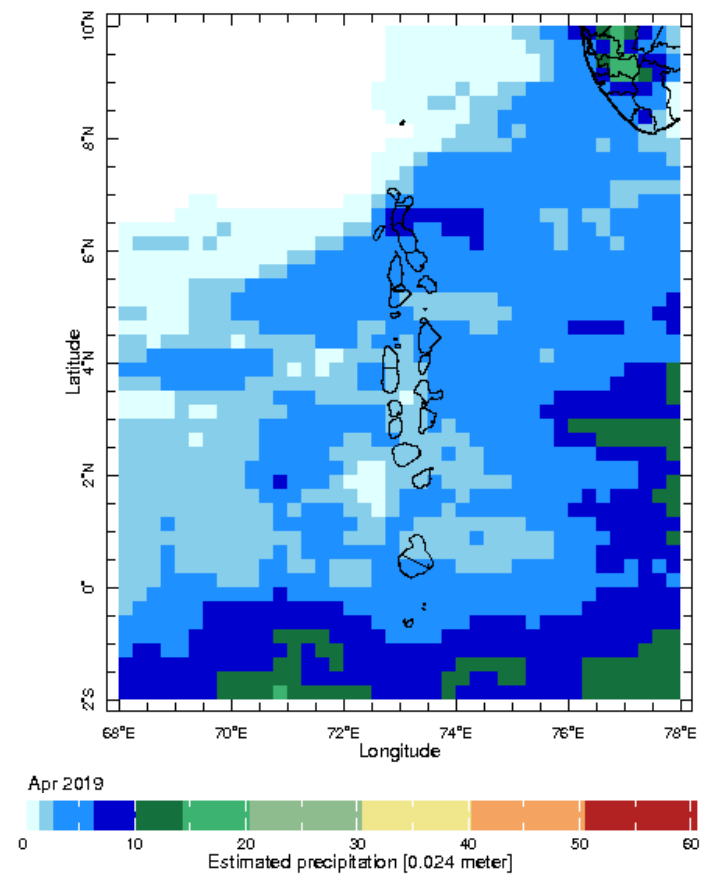


2 May 2019



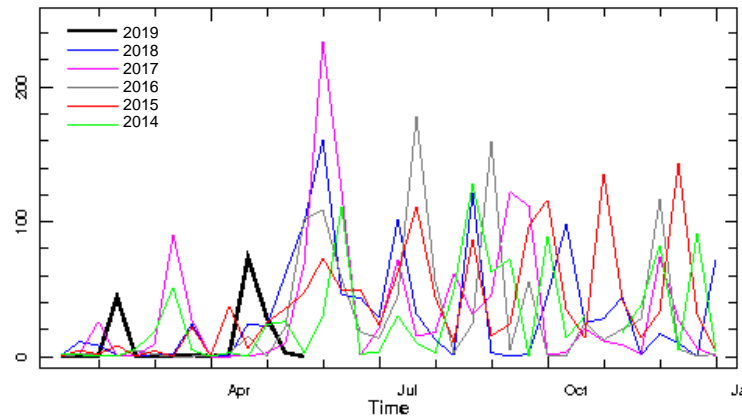
3 May 2019





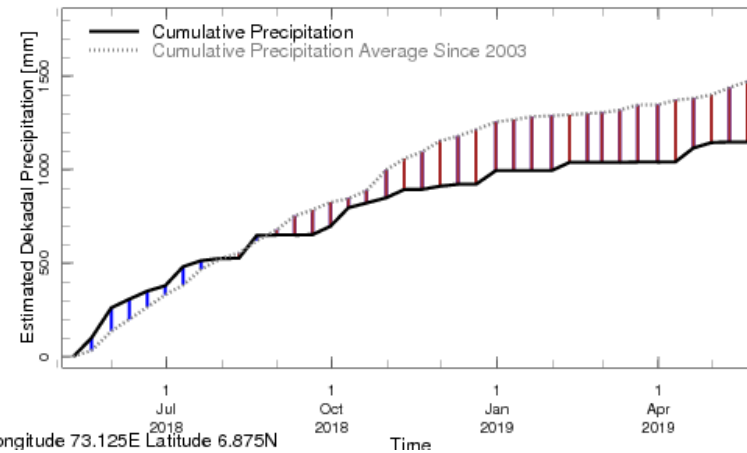
Monthly and Seasonal Monitoring

Northern Maldives:



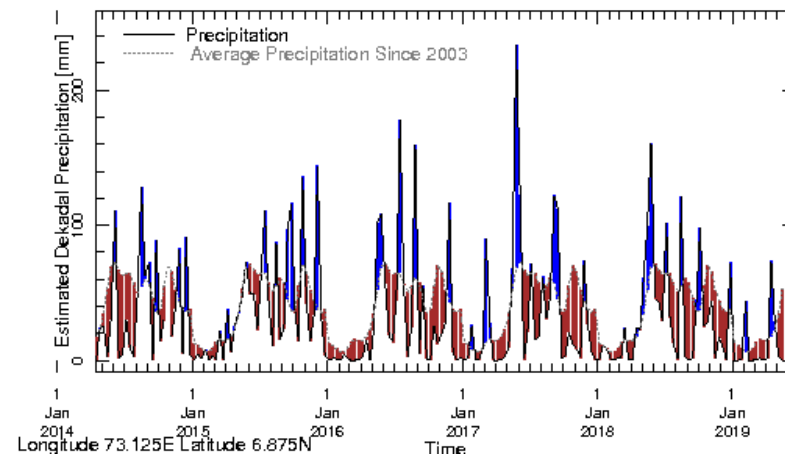
Longitude 73.125E Latitude 6.875N

Rainfall in the current year (black) compared to rainfall in previous 5 years



Longitude 73.125E Latitude 6.875N

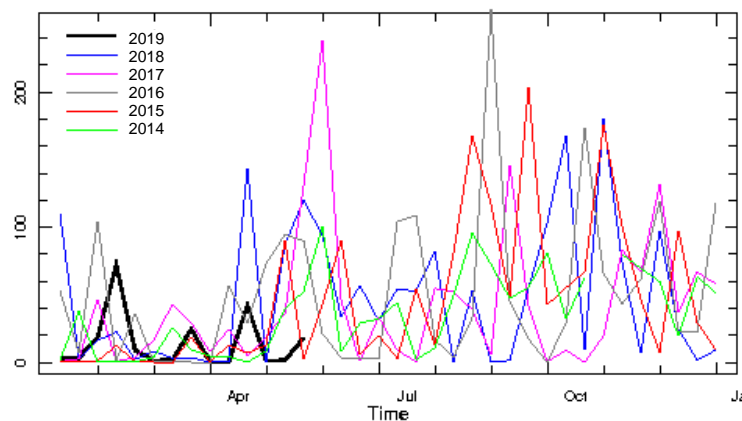
Rainfall of past 365 days (black) compared to average rainfall since 2003.



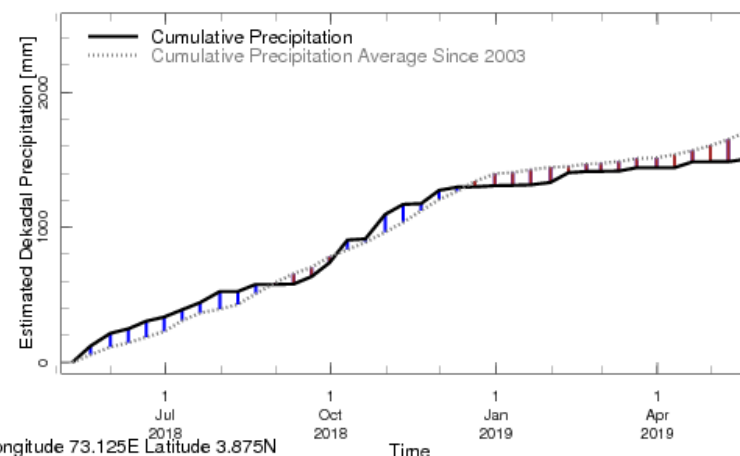
Longitude 73.125E Latitude 6.875N

Rainfall in the past 5 years with above-average rainfall hatched in blue and below-average hatched in brown

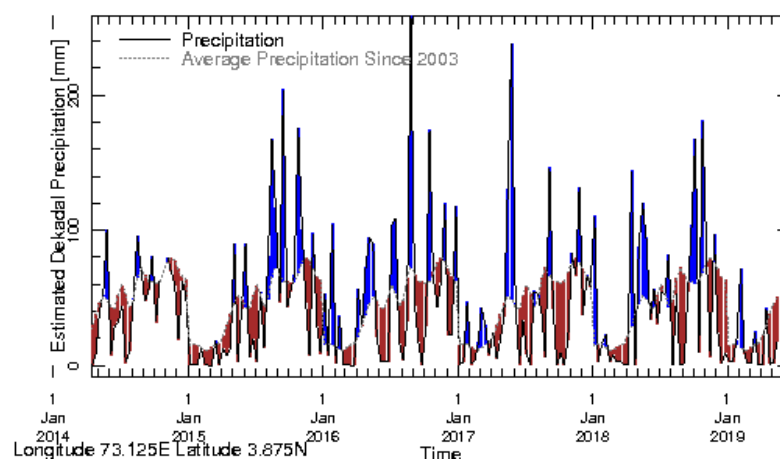
Central Maldives:



Rainfall in the current year (black) compared to rainfall in previous 5 years

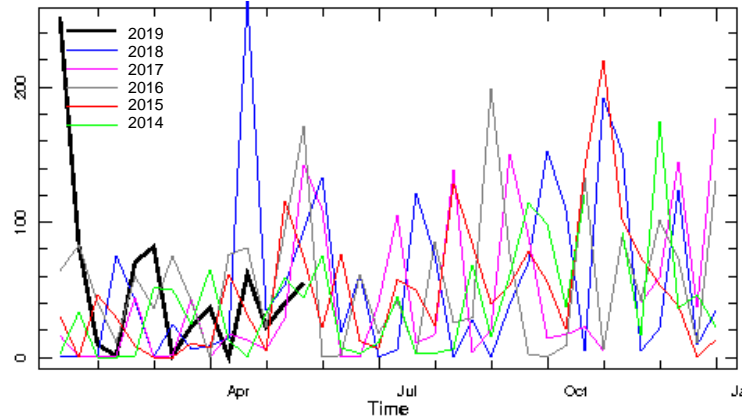


Rainfall of past 365 days (black) compared to average rainfall since 2003.



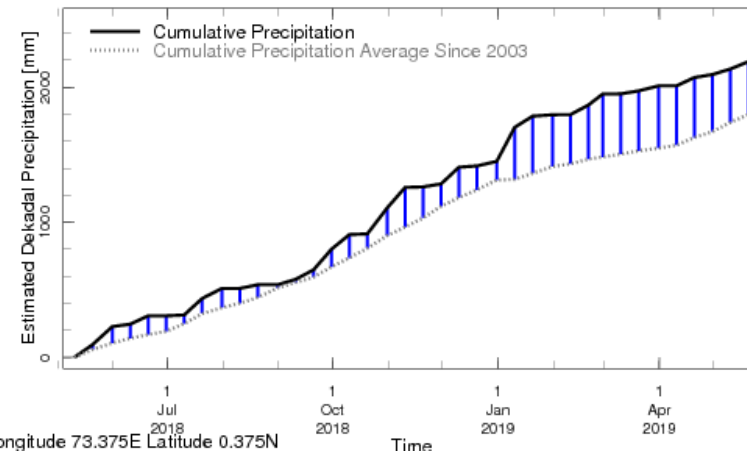
Rainfall in the past 5 years with above-average rainfall hatched in blue and below-average hatched in brown

Southern Maldives:



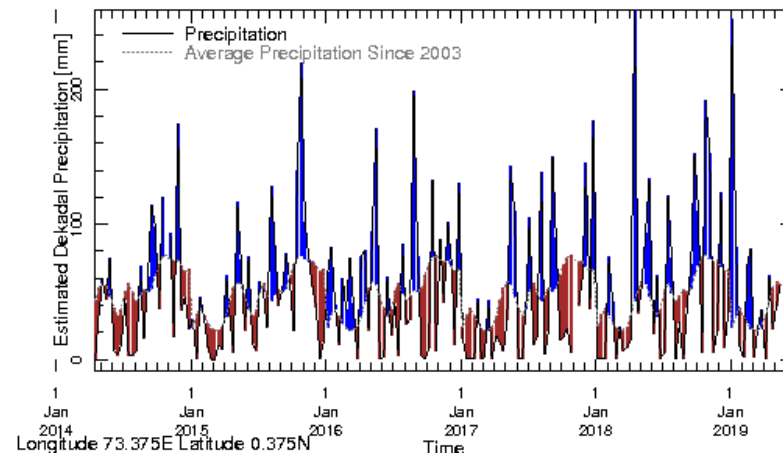
Longitude 73.375E Latitude 0.375N

Rainfall in the current year (black) compared to rainfall in previous 5 years



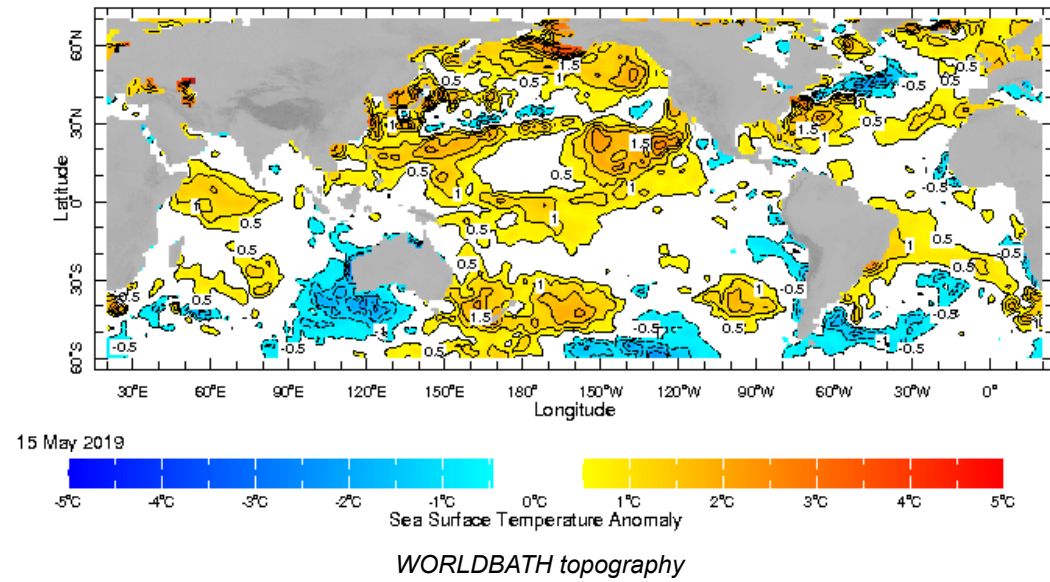
Longitude 73.375E Latitude 0.375N

Rainfall of past 365 days (black) compared to average rainfall since 2003.



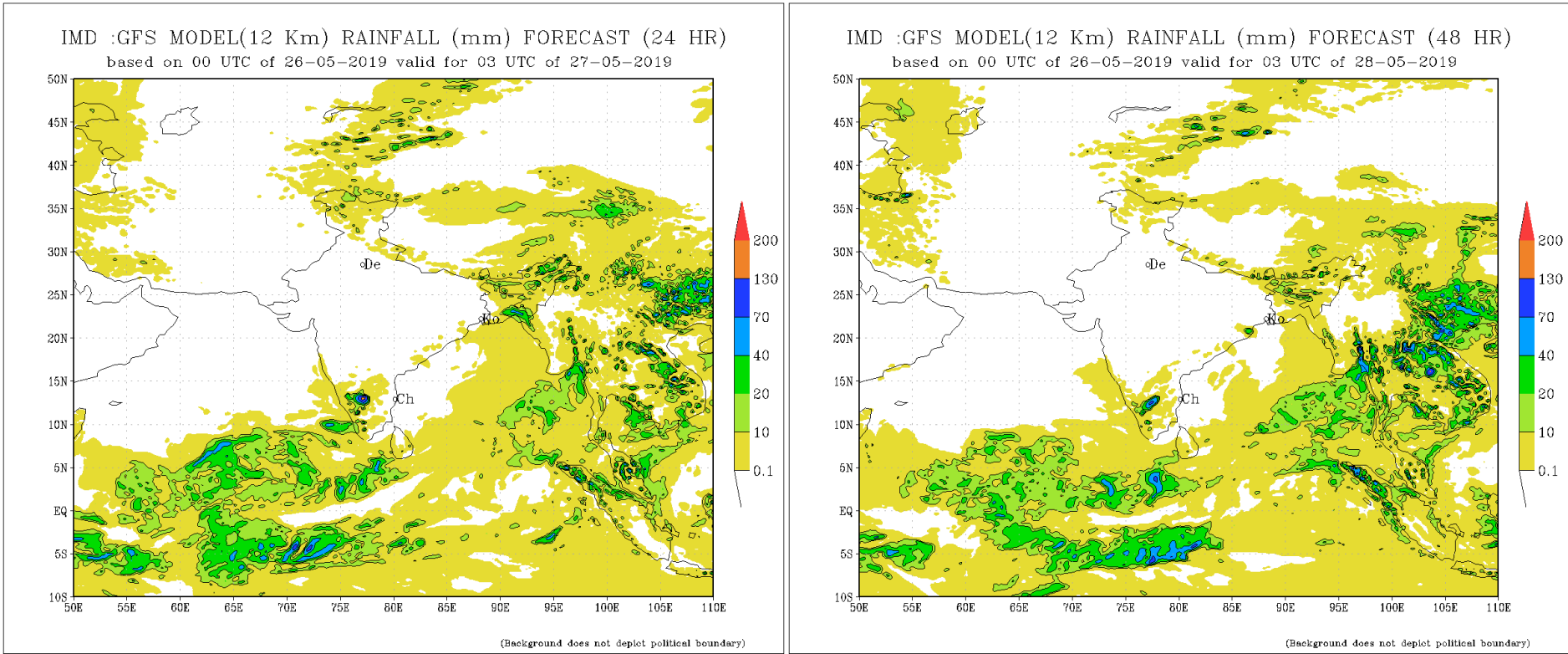
Rainfall in the past 5 years with above-average rainfall hatched in blue and below-average hatched in brown

Ocean Surface Monitoring



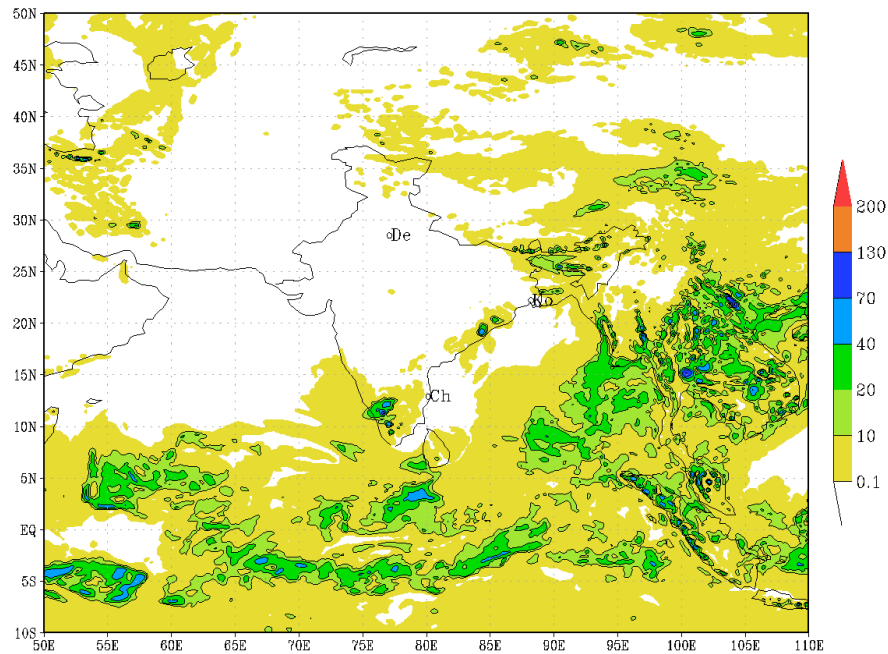
Daily Rainfall Forecast

Daily Rainfall forecasts (up to 7 days ahead) from the IMD is provided in figures below. These predictions are from the GFS (T1534) model covering the entire south Asian region.



IMD :GFS MODEL(12 Km) RAINFALL (mm) FORECAST (72 HR)

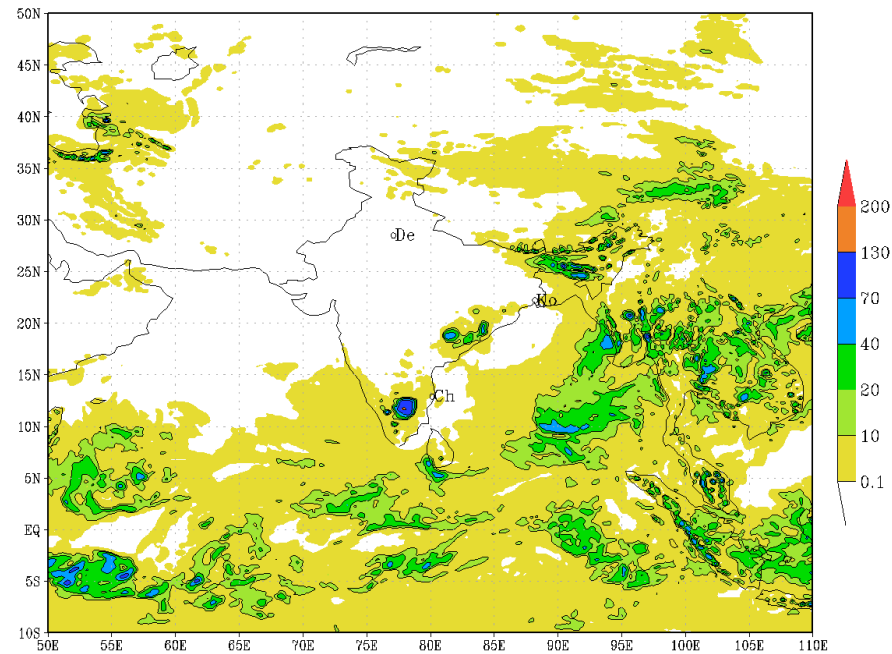
based on 00 UTC of 26-05-2019 valid for 03 UTC of 29-05-2019



(Background does not depict political boundary)

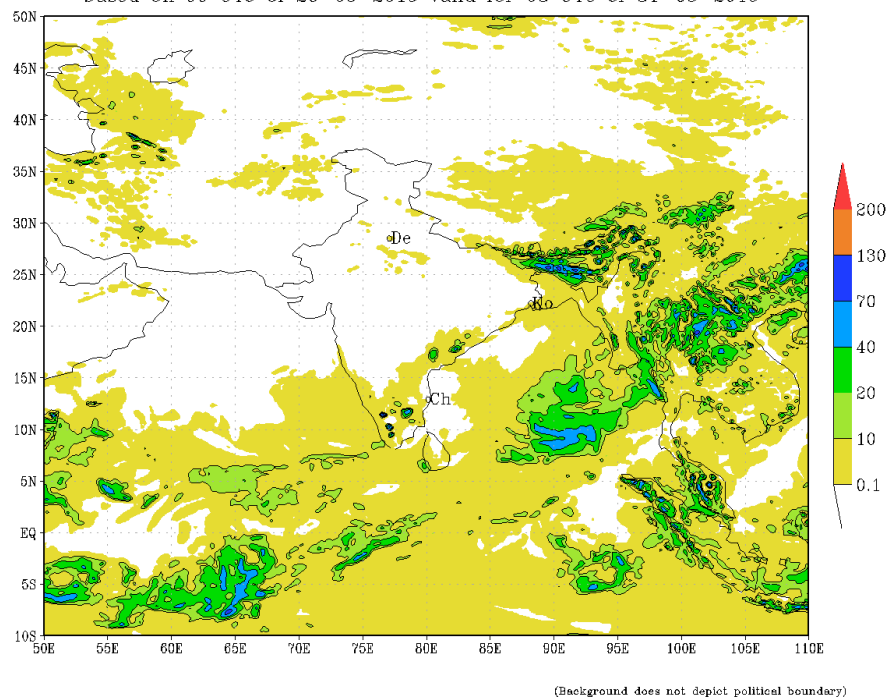
IMD :GFS MODEL(12 Km) RAINFALL (mm) FORECAST (96 HR)

based on 00 UTC of 26-05-2019 valid for 03 UTC of 30-05-2019

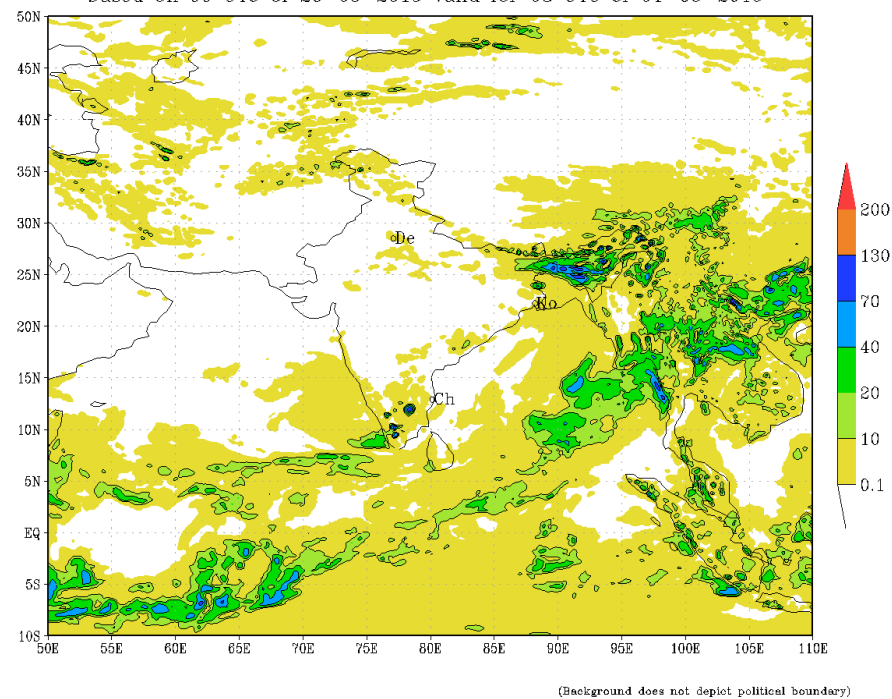


(Background does not depict political boundary)

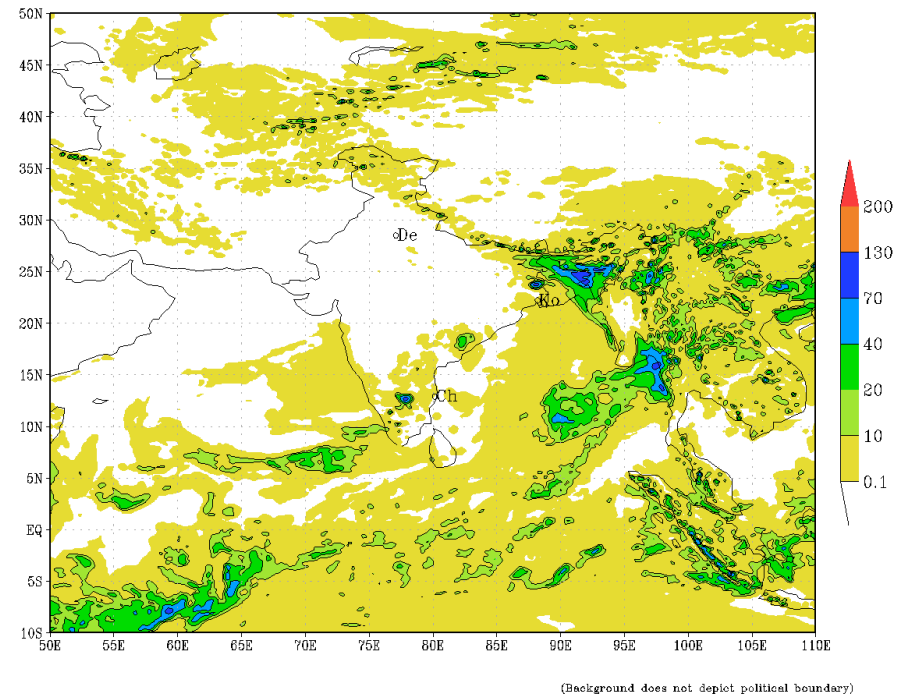
IMD :GFS MODEL(12 Km) RAINFALL (mm) FORECAST (120 HR)
based on 00 UTC of 26-05-2019 valid for 03 UTC of 31-05-2019



IMD :GFS MODEL(12 Km) RAINFALL (mm) FORECAST (144 HR)
based on 00 UTC of 26-05-2019 valid for 03 UTC of 01-06-2019



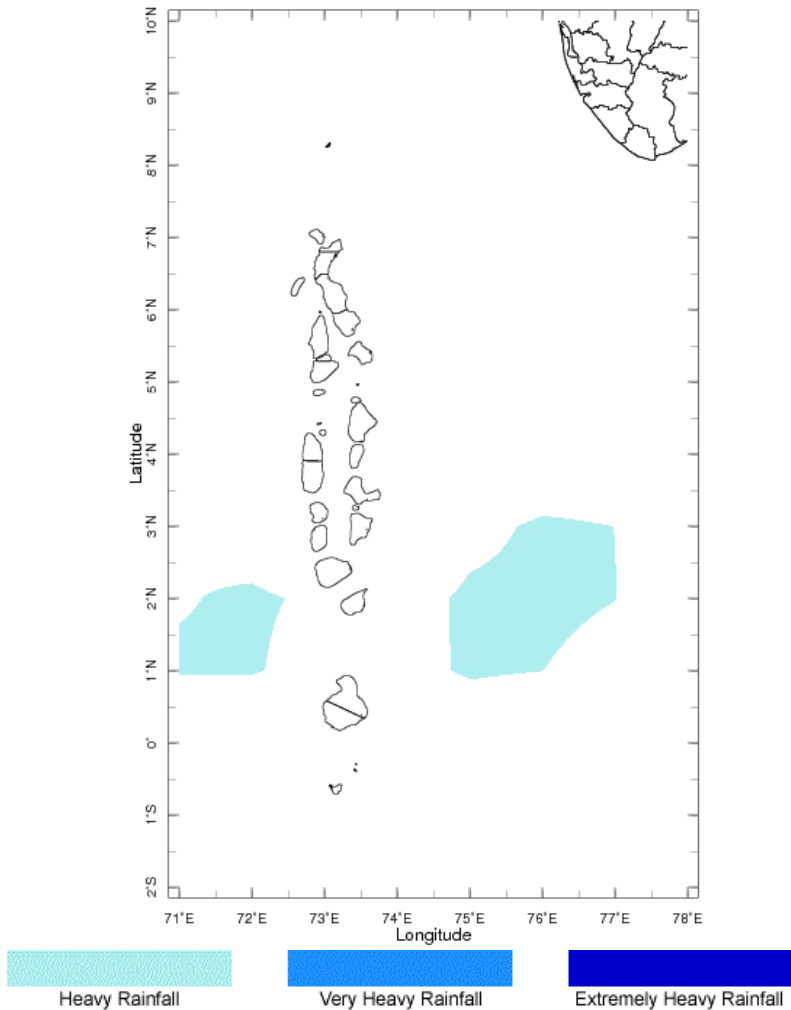
IMD :GFS MODEL(12 Km) RAINFALL (mm) FORECAST (168 HR)
based on 00 UTC of 26-05-2019 valid for 03 UTC of 02-06-2019



Weekly Rainfall Forecast

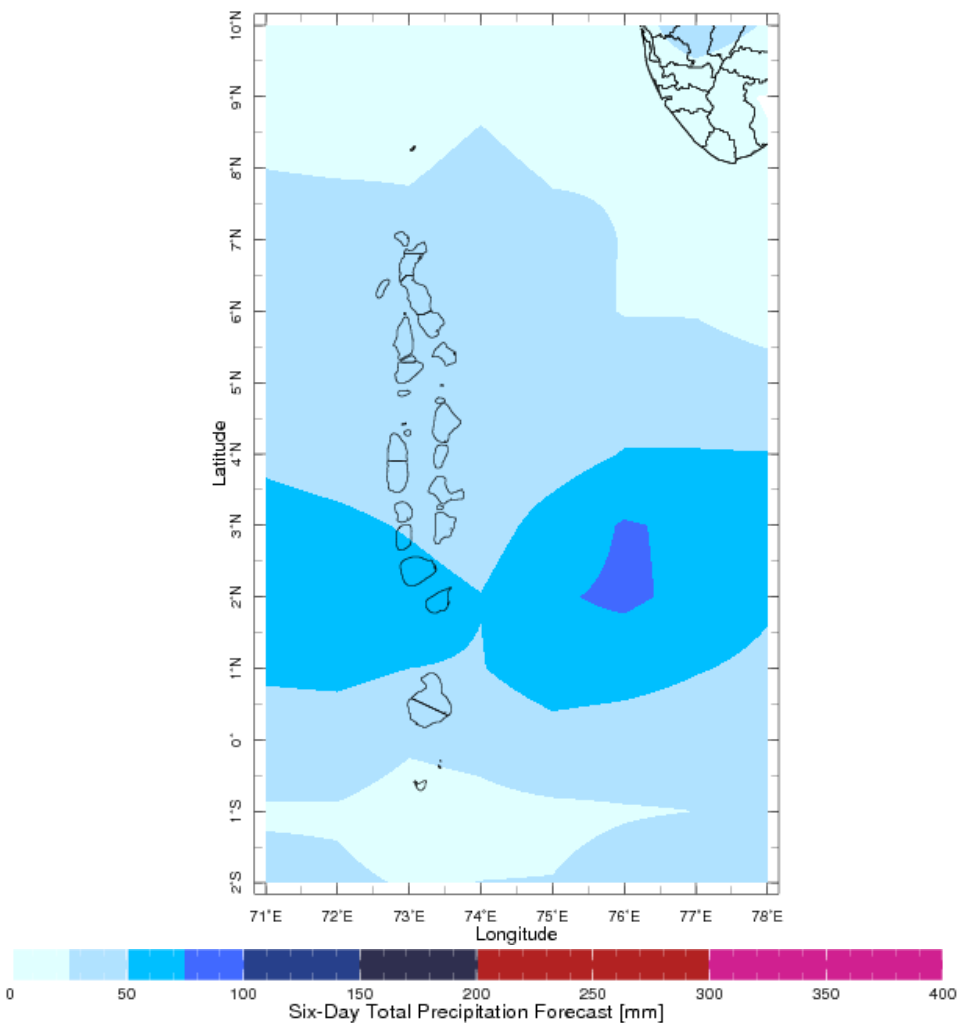
Total rainfall forecast from the IRI for next six days is provided in figures below. The figure to the left shows the expectancy of heavy rainfall events during these six days while the figure to the right is the prediction of total rainfall amount during this period.

Forecast for 25-30 May 2019 Issued 0000 25 May 2019



Extreme Rainfall Forecast

Forecast for 25-30 May 2019 Issued 0000 25 May 2019



Total Six Day Precipitation Forecast