

HIGHLIGHTS

Rainfall Prediction



• The Central province is expected to receive up to 85 mm of fairly heavy rainfall from 9th - 15th Mar, while the North Western, North Central, and Eastern provinces are expected to receive up to 55mm.

Monitored Rainfalls



• Fairly heavy rainfall was experienced in the Eastern, Uva, Southern, Central & Sabaragamuwa provinces with a max of 72.5 mm in Inginiyagala on 2nd Mar.

Monitored Wind



• From 28th Feb - 6th Mar, up to 8m/s Northeasterlies were experienced over the island.

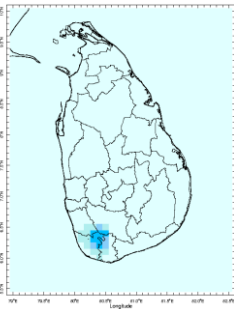
Monitored Sea Surface



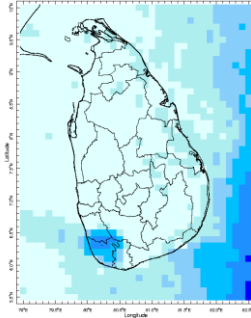
• Sea surface temperatures were neutral around the entire island.

Monitoring Rainfall

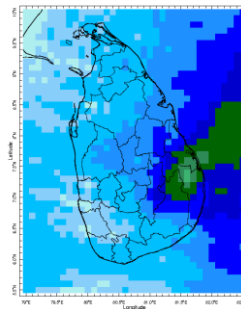
Daily Estimates for Rainfall from 28th February – 7th March 2022



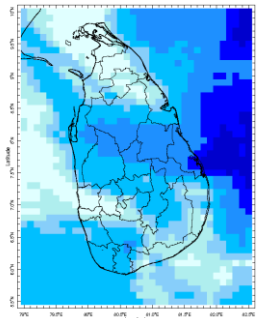
28 February



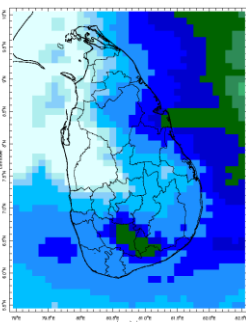
1 March



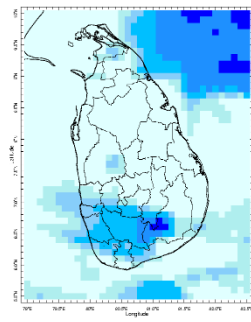
2 March



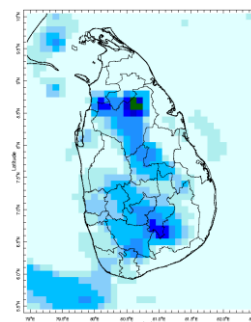
3 March



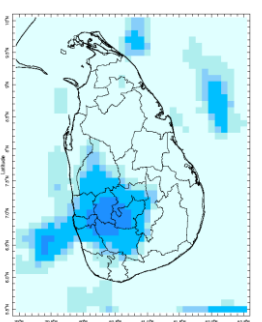
4 March



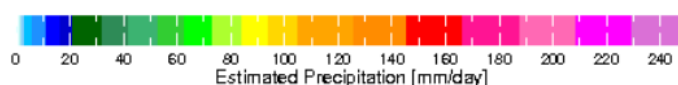
5 March



6 March



7 March



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Ocean State *(Text Courtesy IRI)*

Pacific sea state: March 2, 2022

Equatorial sea surface temperatures (SSTs) are below average across the East Central and Eastern Pacific Ocean in early-March. A large majority of the models indicate La Niña to prevail (with Negative Indian Ocean Dipole) through Northern Hemisphere spring 2022. A transition to ENSO-neutral is expected in May-July 2022.

Indian Ocean State

Sea surface temperatures were neutral around the entire island.

Predictions

Rainfall

14-day prediction: NOAA NCEP models

From 9th – 15th March:

Total rainfall by Provinces:

Rainfall	Provinces
85 mm	Central
55 mm	North Central, Eastern, North Western
45 mm	Western, Sabaragamuwa
35 mm	Southern, Eastern, Uva

From 16th – 22nd March:

Total rainfall by Provinces:

Rainfall	Provinces
95 mm	Central
85 mm	North Western
65 mm	North Central, Eastern, Uva
55 mm	Sabaragamuwa
45 mm	Western, Southern
35 mm	Northern

MJO based OLR predictions

For the next 15 days:

MJO shall be active from 9th – 23rd March, giving slightly enhanced rainfall from 9th – 18th March; and neutral during 19th – 23th March for the entire island.

Interpretation

Monitoring

Rainfall: During the last two weeks, there had been heavy rainfall over the following province: Eastern, Uva, Southern, Sabaragamuwa and Central.

Wind: Northeasterly winds prevailed in the sea area surrounding the island last week.

Temperatures: The temperature anomalies were below normal for the North Central and North Western provinces and near-neutral for the rest of the country, driven by the warm SST's.

Predictions

Rainfall: During the next week (9th – 15th March) fairly heavy rainfall is predicted for Central, North Western, North Central and Eastern provinces.

Temperatures: The temperature remains slightly above normal in the Northern and Western province during 11th – 19th March.

Teleconnections:

La Nina - The SST forecast indicates that La Niña is prevailing (with Negative Indian Ocean Dipole) through the Northern Hemisphere spring.

MJO shall be active from 9th – 23rd March, giving slightly enhanced rainfall from 9th – 18th March; and neutral during 19th – 23th March for the entire island.

Seasonal Precipitation:

The precipitation forecast for the March-April-May season shows above-normal precipitation for the Northern and neutral the rest of the Island.

Terminology for Rainfall Ranges

	Rainfall (During 24 hours of period)
Light Showers	Less than 12.5 mm
Light to Moderate	Between 12.5 mm and 25 mm
Moderate	Between 25 mm and 50 mm
Fairly Heavy	Between 50 mm and 100 mm
Heavy	Between 100 mm and 150 mm
Very Heavy	More than 150 mm

Tropical Climate Guarantee, Federation of Environment, Climate and Technology, Columbia University Water Center, ¹ International Research Institute for Climate and Society, , Earth Institute at Columbia University, New York.



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Weekly Climate Bulletin for Sri Lanka

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2. Predictions

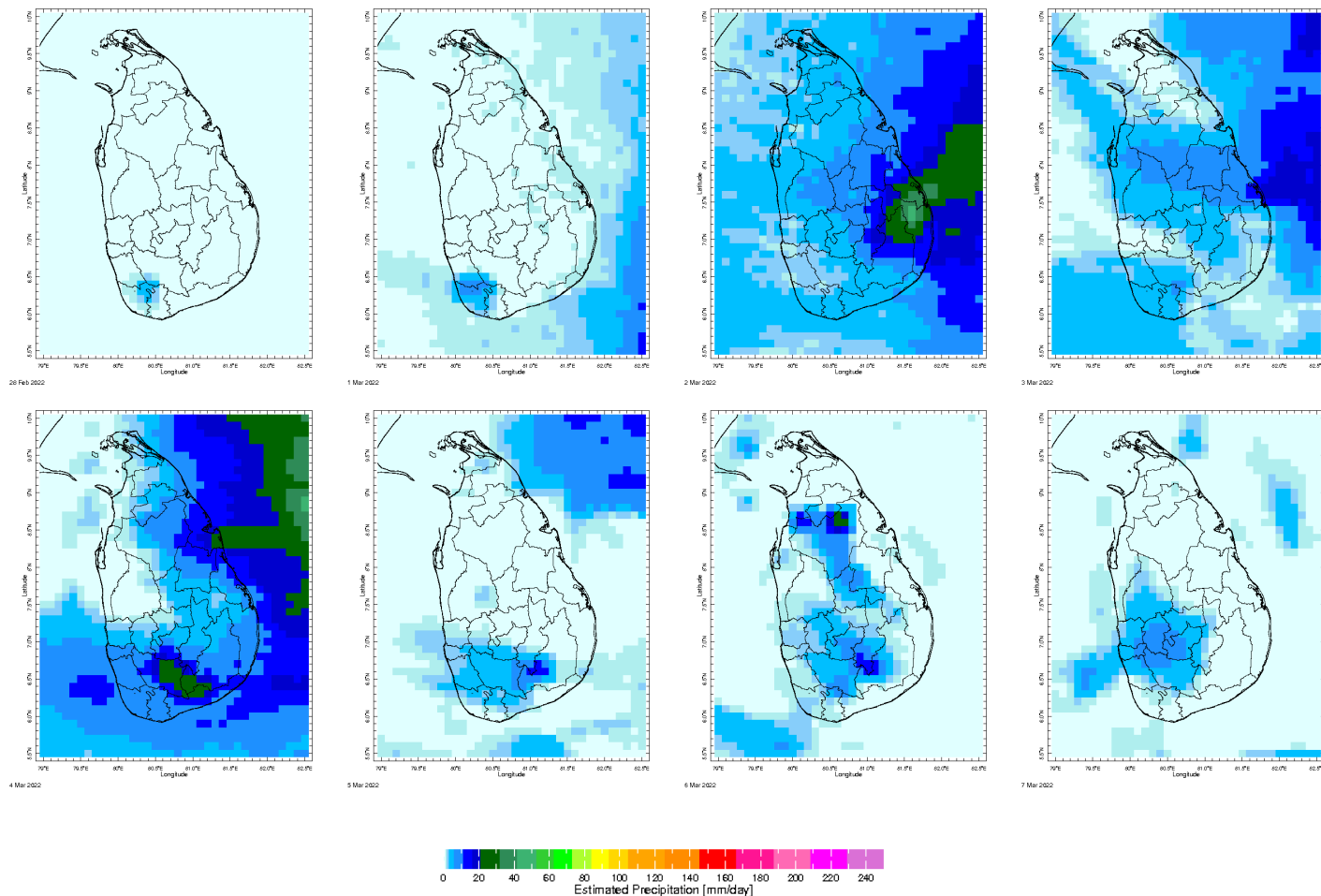
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MONITORING

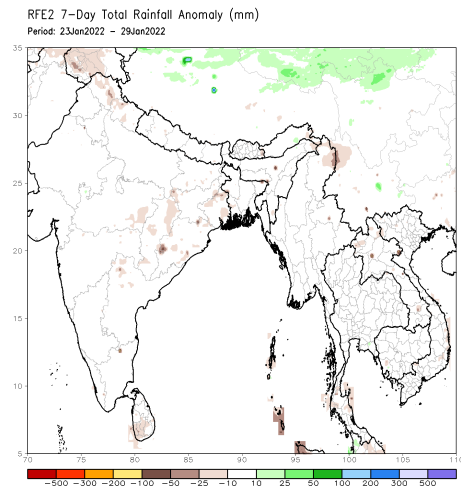
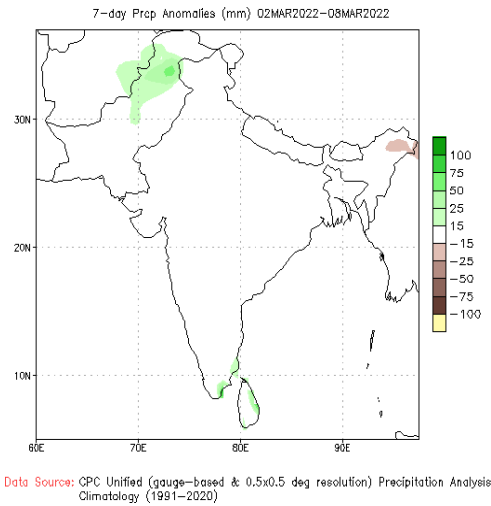
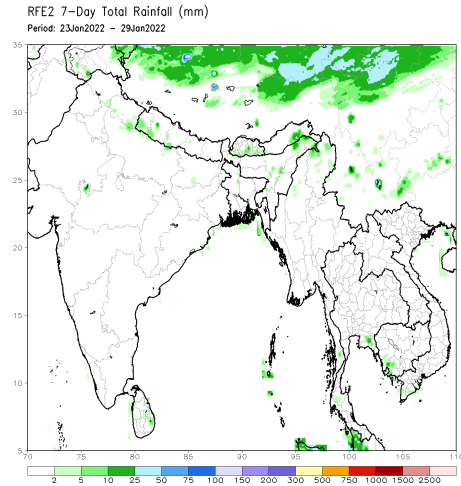
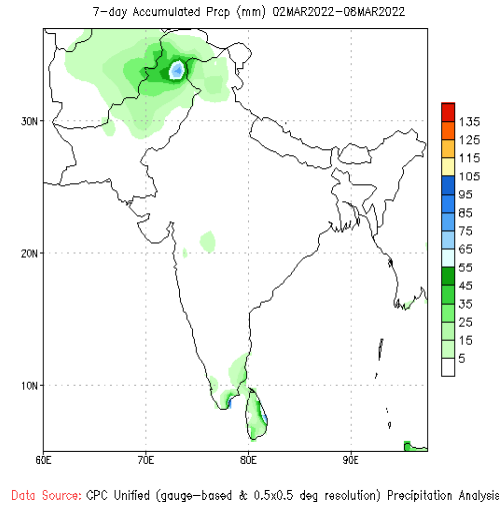
Daily Rainfall Monitoring

The following figures show the satellite observed rainfall in the last 7 days in Sri Lanka.



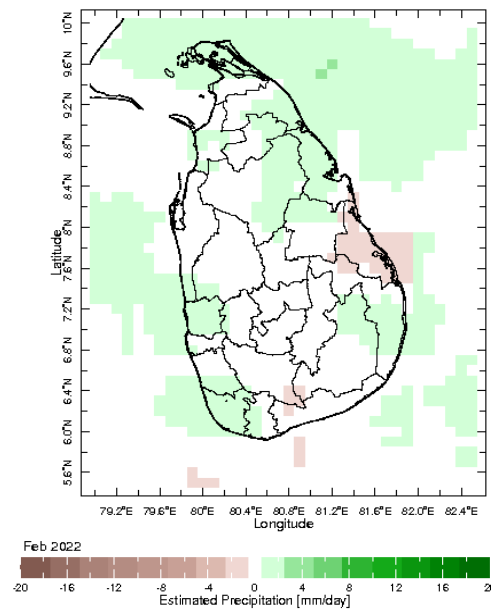
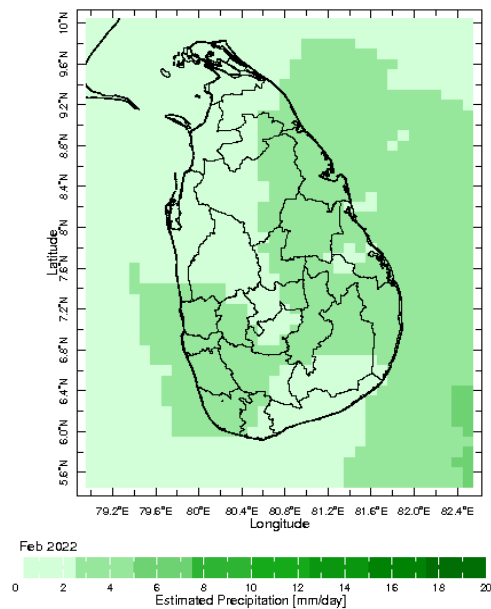
Weekly Rainfall Monitoring

The following figures show the total satellite observed rainfall in the last week in Sri Lanka. The figure in the left is the total 7-day rainfall from NOAA Climate Prediction Center (CPC) Unified Precipitation Analysis and the figure in the right is the total 7-day rainfall from CPC RFE 2.0 Satellite Rainfall Estimates. The bottom two figures are the respective anomalies.

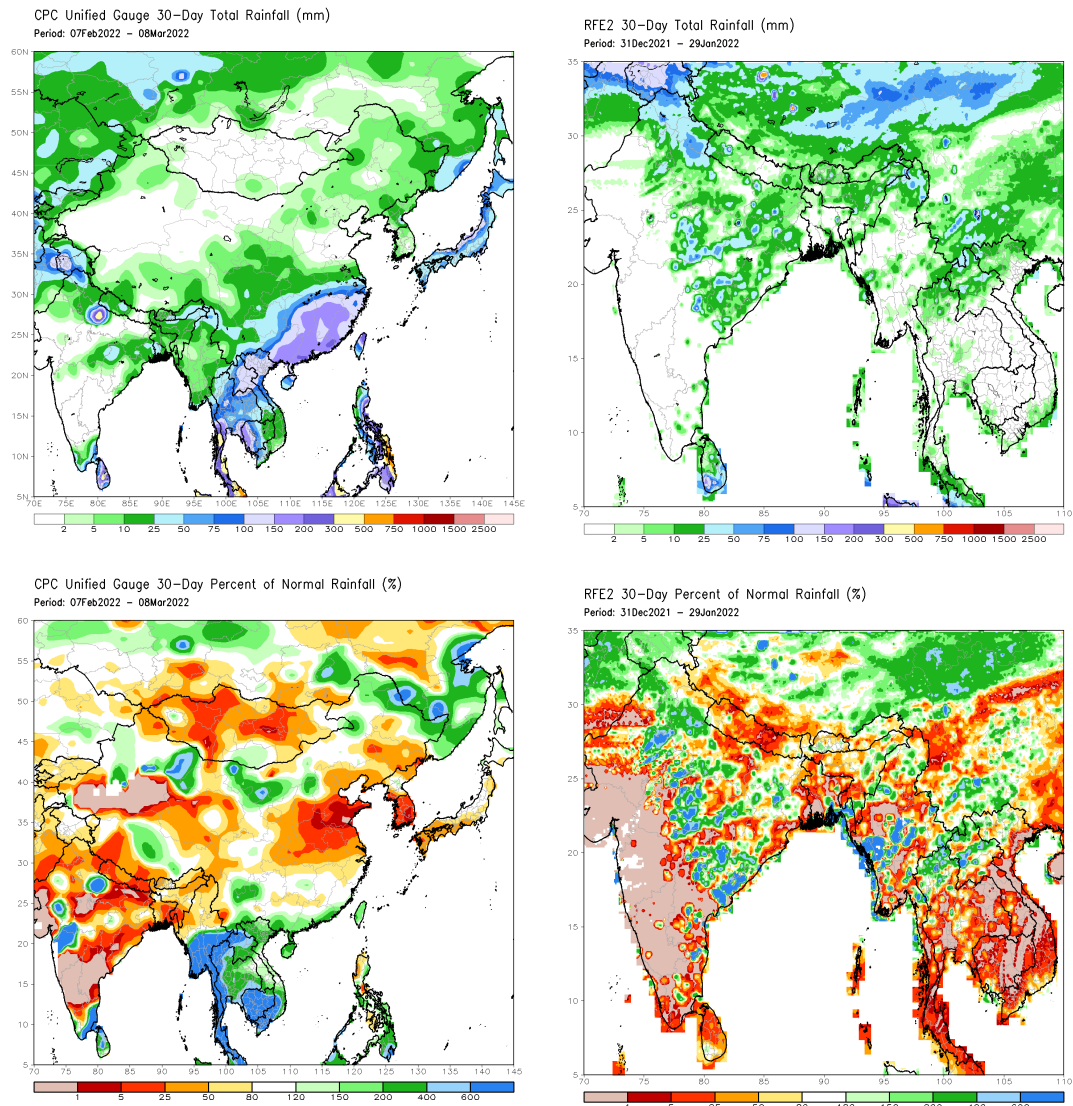


Monthly Rainfall Monitoring

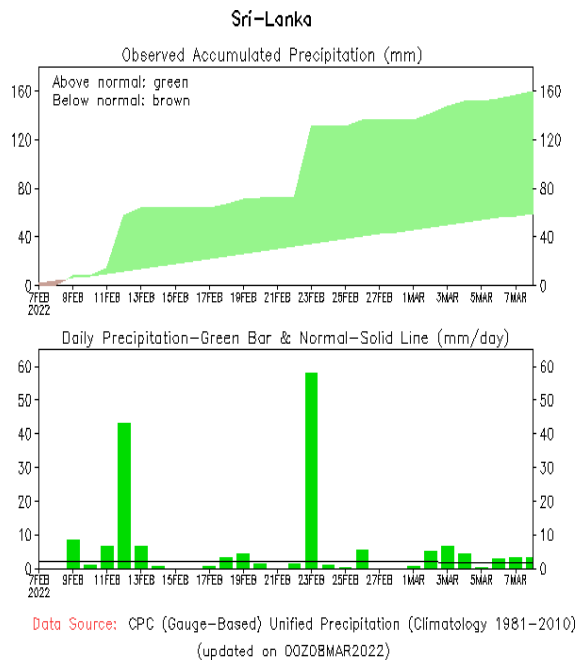
The figure in the left shows the average observed rainfall in the previous month. The rainfall anomaly in the previous month is shown in the figure to the right. The brown color in the anomaly figure shows places which received less rainfall than the historical average while the green color shows places with above average rainfall. Darker shades show higher magnitudes in rainfall



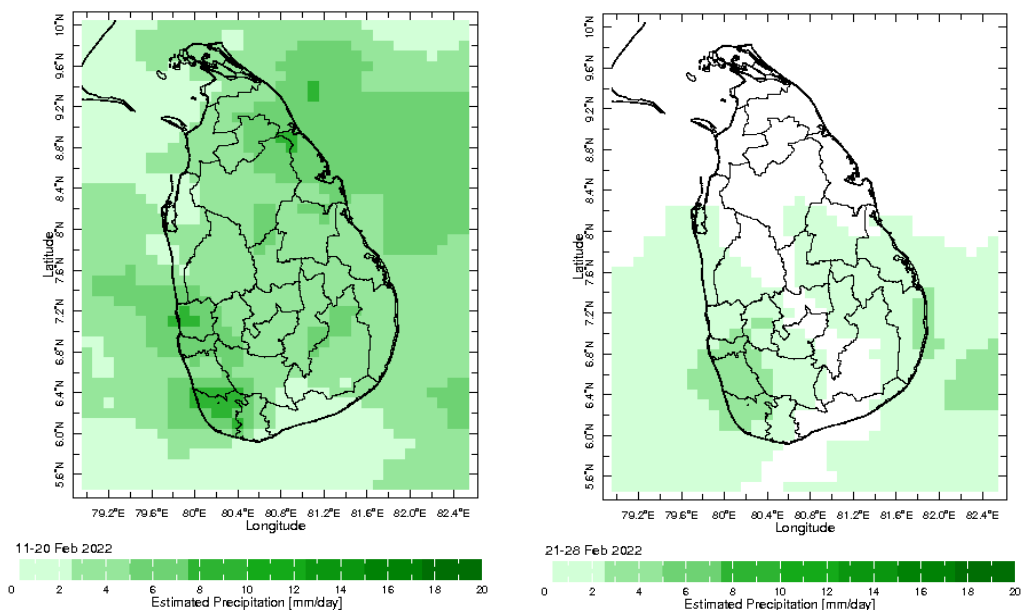
The figure in the top-left shows the total rainfall in the past 30 days from CPC Unified Precipitation Analysis while the figure in the top-right shows the total rainfall for the same period from RFE 2.0 Satellite Rainfall Estimates. The bottom two figures show the percentage of rainfall received in the past 30 days compared to normal rainfall in this period.



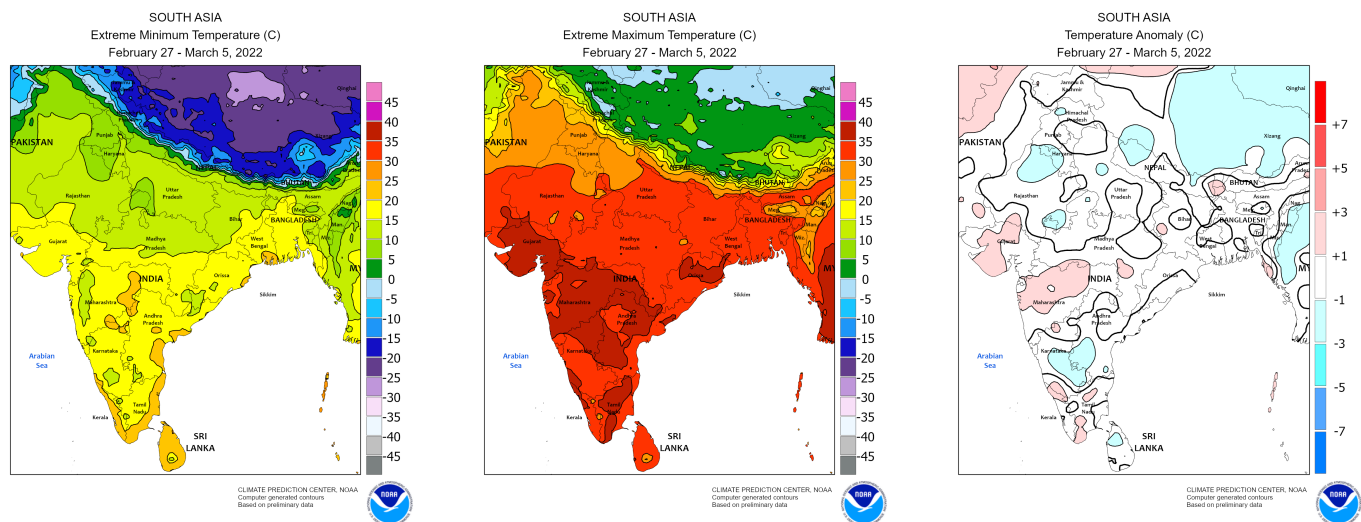
The following figure shows the observed accumulated rainfall (top) and daily observed rainfall (bottom) in Sri Lanka in the last 30 days.



Dekadal (10 Day) Satellite Derived Rainfall Estimates

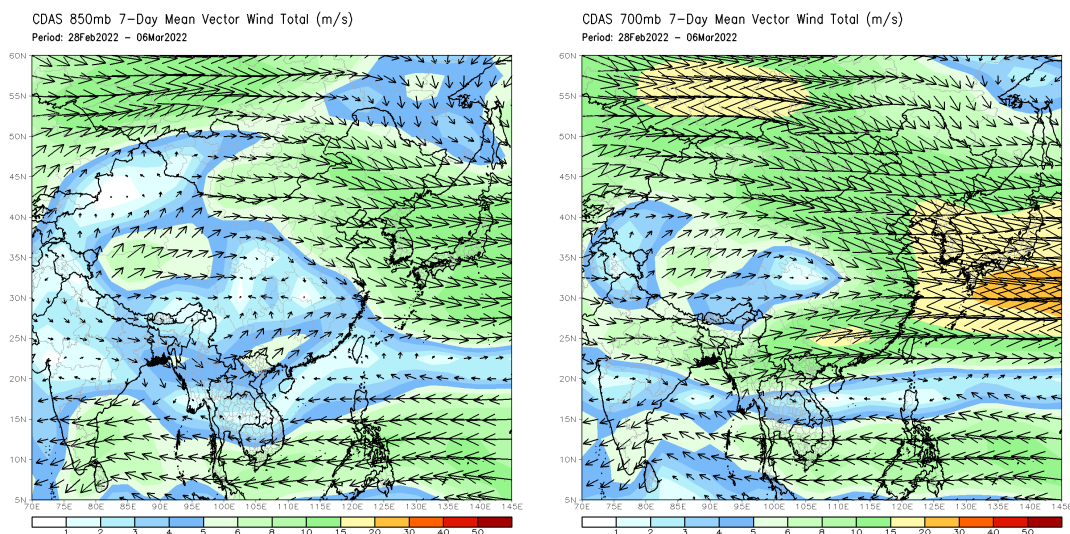


Weekly Temperature Monitoring



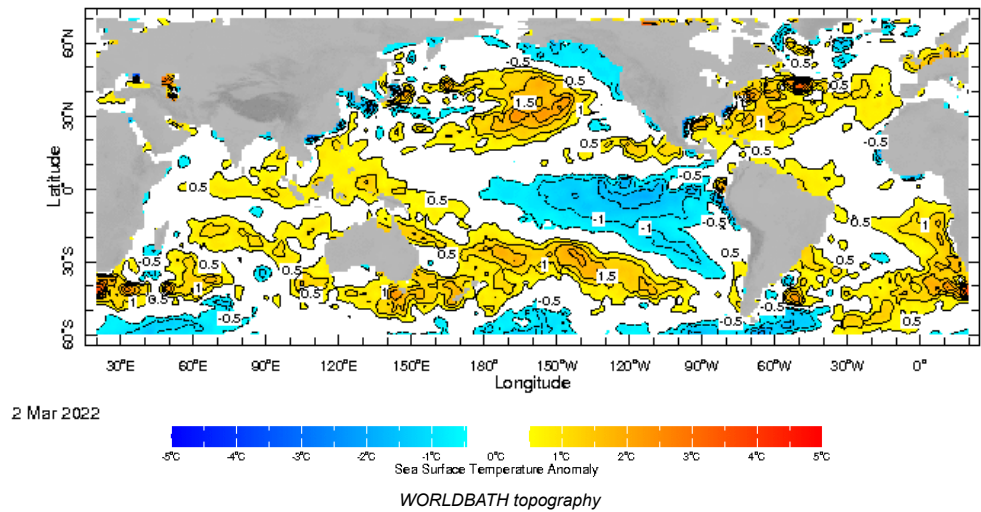
Weekly Wind Monitoring

The following figures show the mean vector wind total of the past 7 days near Sri Lanka at two levels. The figure on the left shows 850 mb (~1500 m) level and the figure on the right shows 700 mb (~3000 m) level.

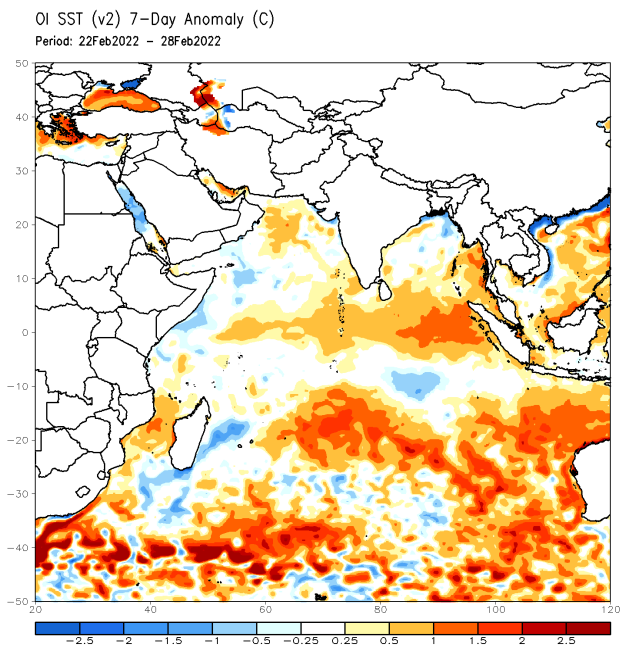


Weekly Average SST Anomalies

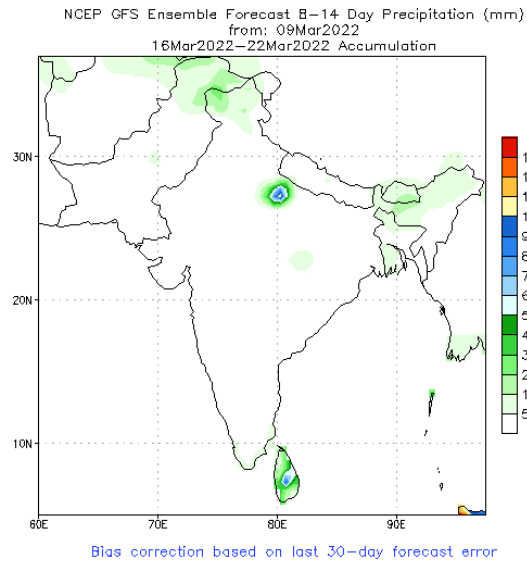
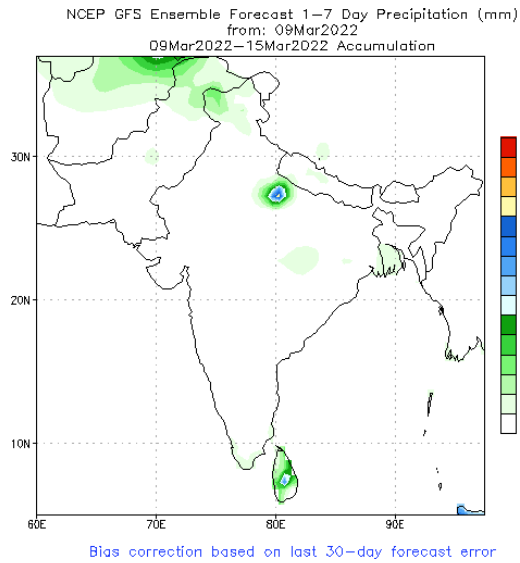
Weekly average Sea Surface Temperature (SST) anomaly in the world from NOAA NCEP



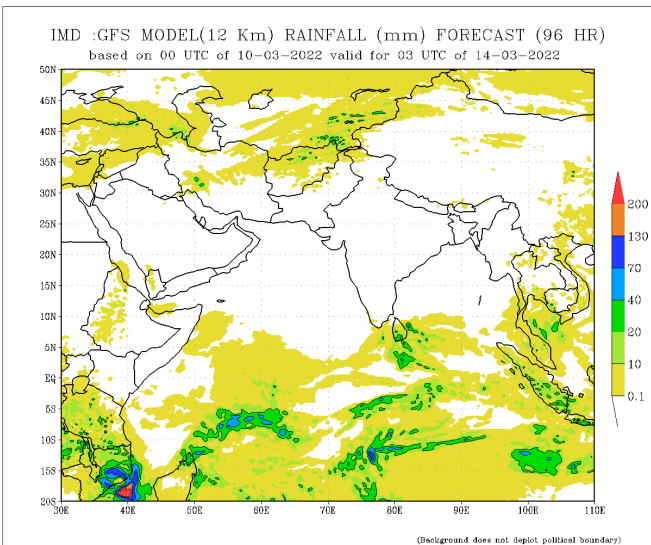
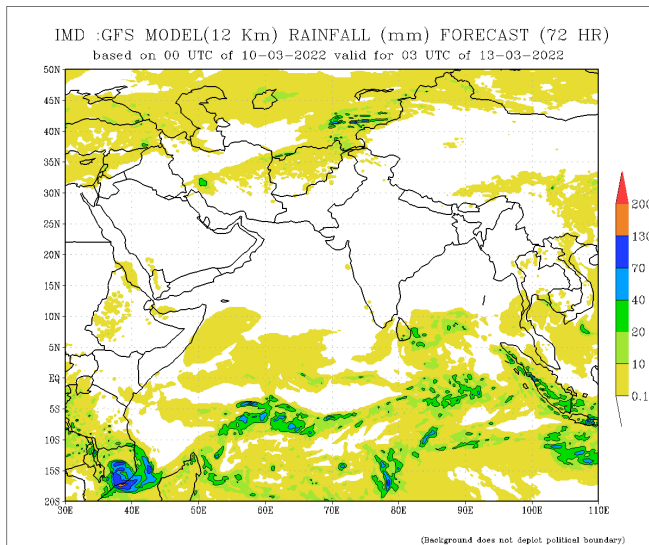
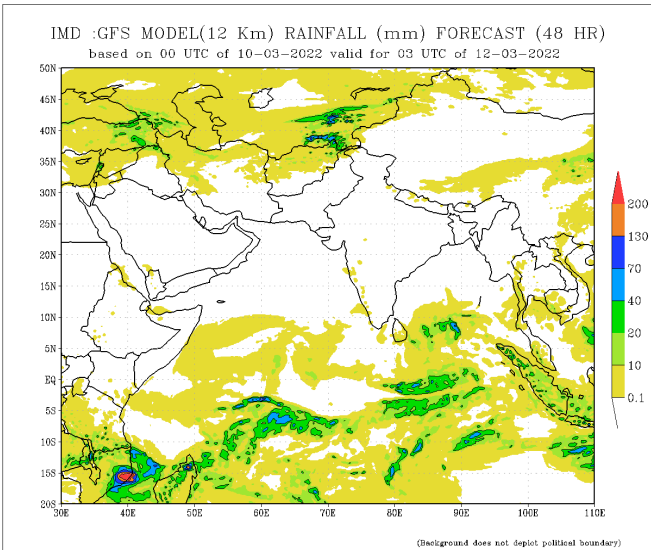
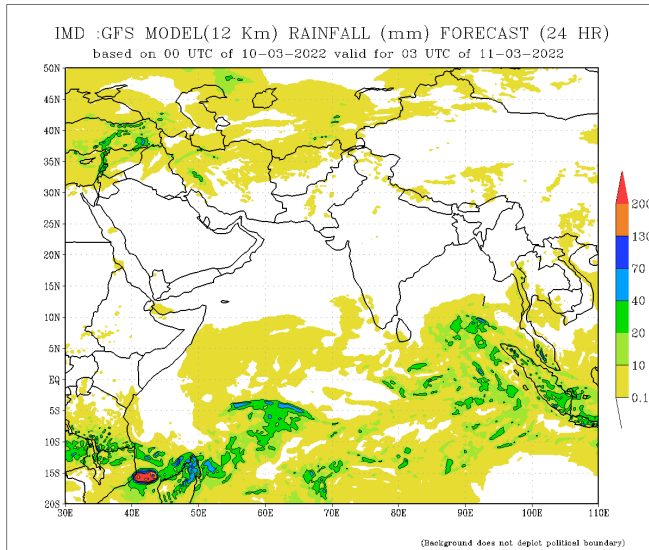
Optimum Interpolated Sea Surface Temperature Anomaly in the Indian Ocean from NOAA CPC

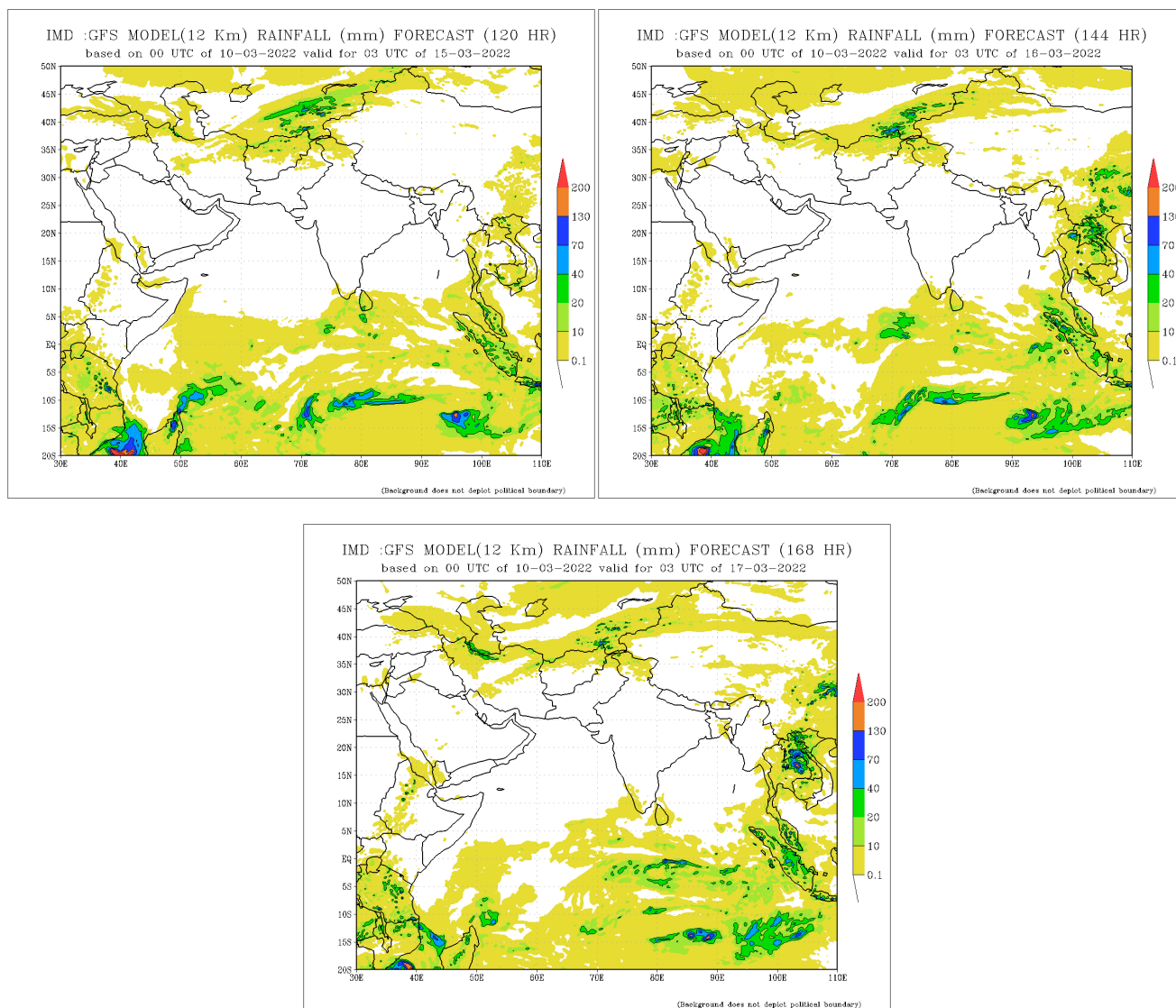


NCEP GFS 1- 14 Day prediction



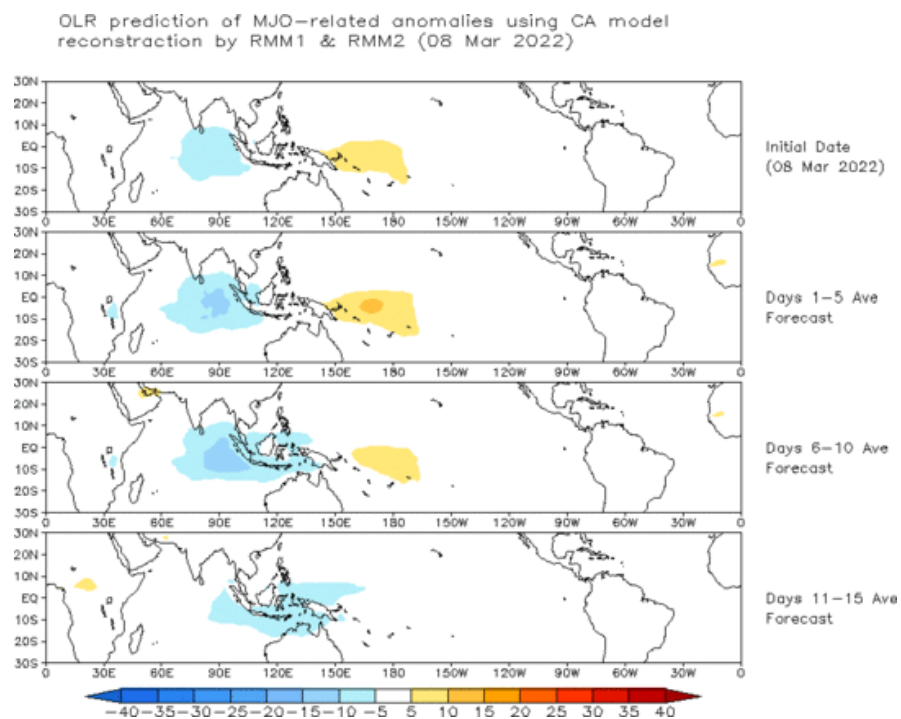
IMD GFS (T574) Model Rainfall Forecast from RMSC New Delhi, India





Madden Julian Oscillation (MJO) related Outgoing Longwave Radiation (OLR) Forecast

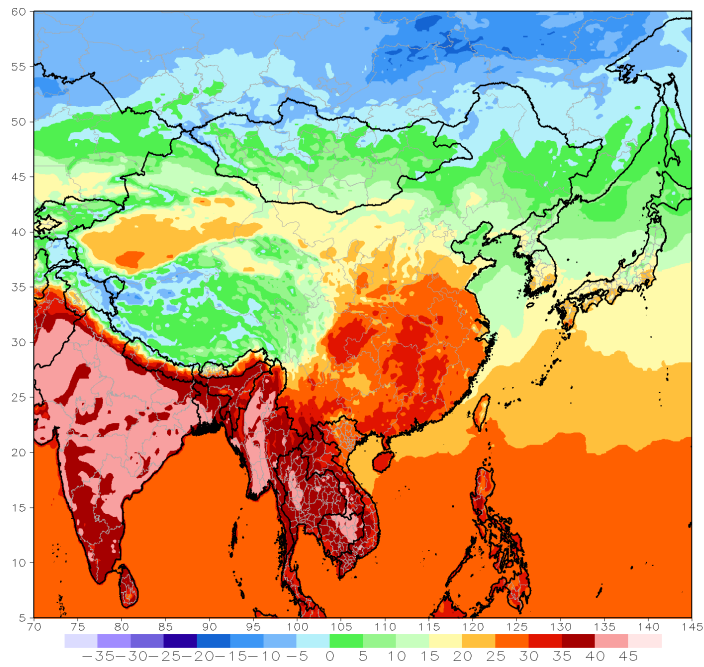
The Outgoing Longwave Radiation (OLR) is a proxy for rainfall. This can be used to identify convective rain clouds based on the MJO phase. Violet and Blue shading indicates enhanced tropical weather and Orange shading indicates suppressed conditions. The following figure shows the forecasts of MJO associated anomalous OLR for the next 15 days from the Constructed Analogue (CA) model forecasts.



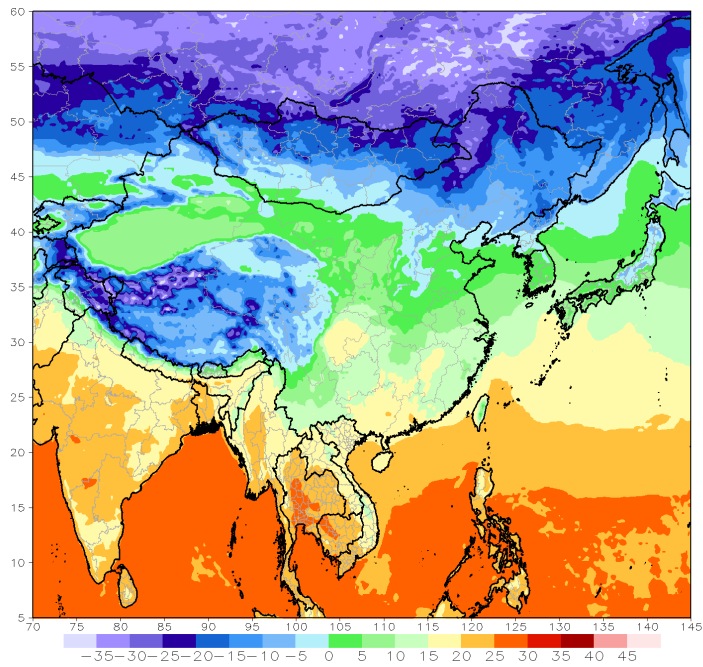
Weekly Temperature Forecast

Weekly Minimum and Maximum Temperature prediction from the GFS model (from NOAA CPC)

GFS week1 Temperature Max (C)
Period: 00z11Mar2022 - 00z17Mar2022



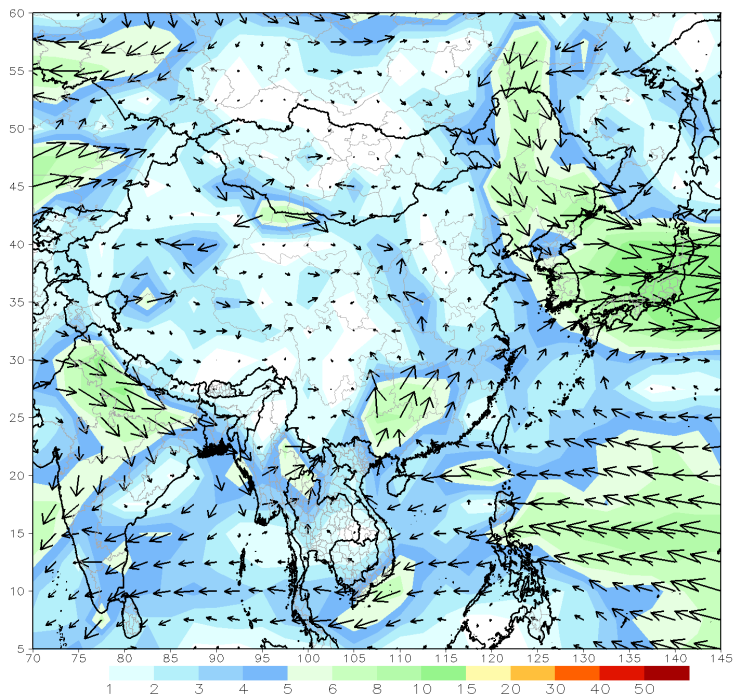
GFS week1 Temperature Min (C)
Period: 00z11Mar2022 - 00z17Mar2022



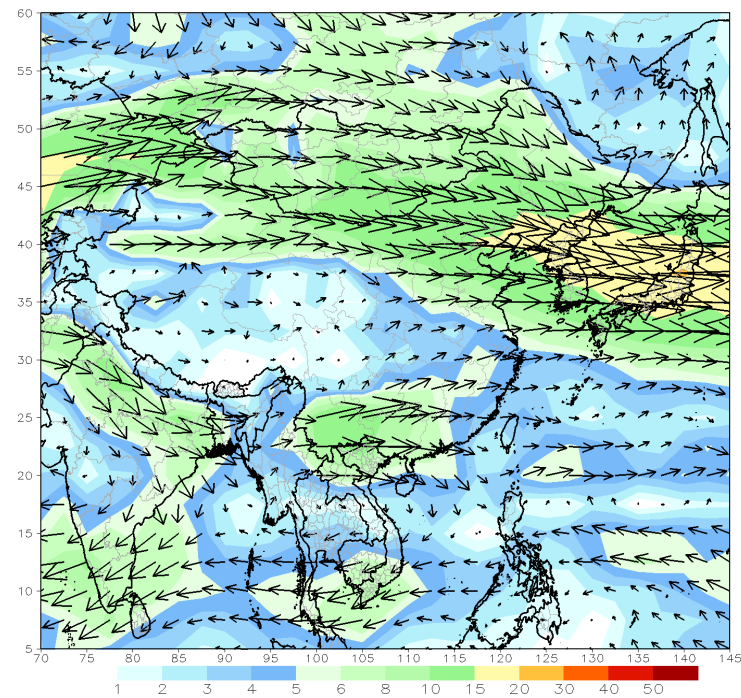
Weekly Wind Forecast

Weekly mean vector wind total prediction from the GFS model at 850 mb (left) and 700 mb (right) levels. (from NOAA CPC)

GFS 850mb week1 Mean Vector Wind Total (m/s)
Period: 00z11Mar2022 - 00z17Mar2022



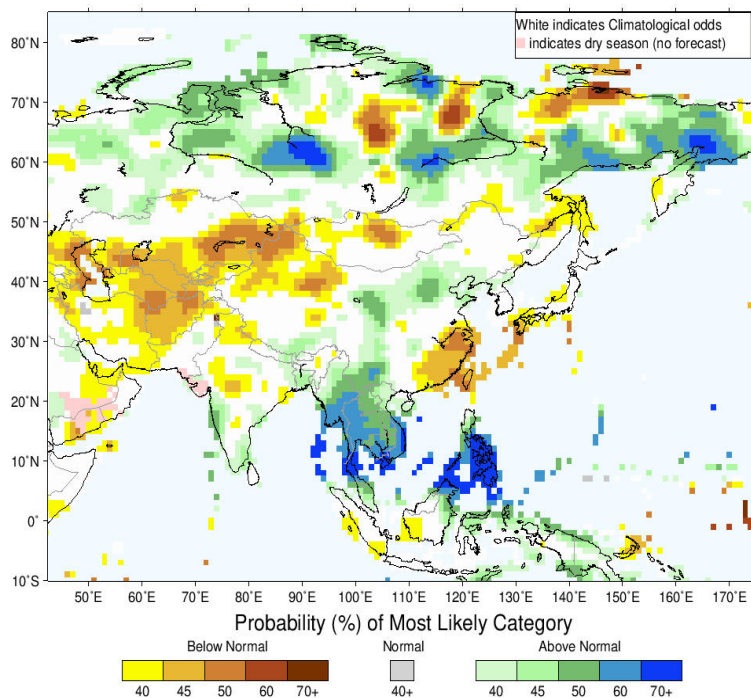
GFS 700mb week1 Mean Vector Wind Total (m/s)
Period: 00z11Mar2022 - 00z17Mar2022



Seasonal Rainfall and Temperature Forecast

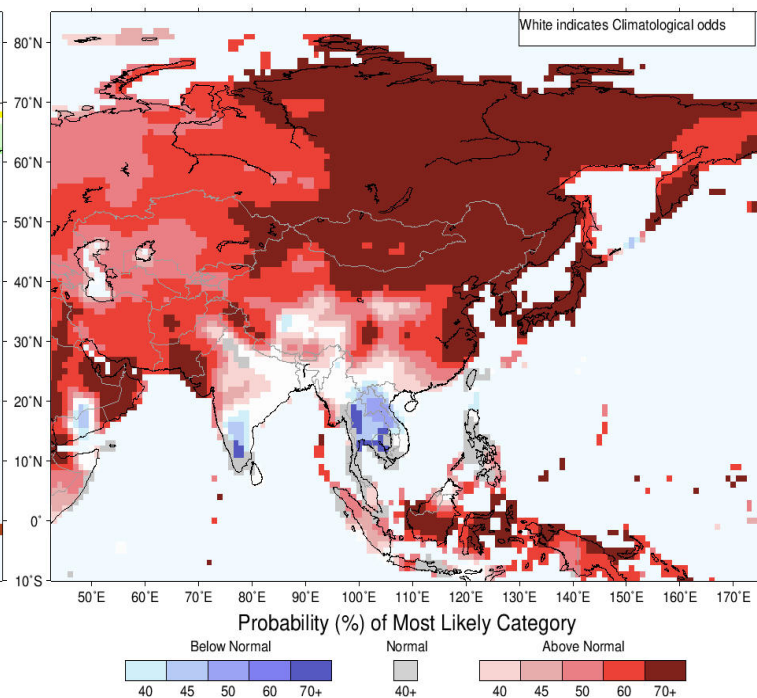
Following is the latest seasonal precipitation and temperature prediction for the next 3 months by the IRI. The color shading indicates the probability of the most dominant tercile -- that is, the tercile having the highest forecast probability. The color bar alongside the map defines these dominant tercile probability levels. The upper side of the color bar shows the colors used for increasingly strong probabilities when the dominant tercile is the above-normal tercile, while the lower side shows likewise for the below-normal tercile. The gray color indicates an enhanced probability for the near-normal tercile (nearly always limited to 40%).

IRI Multi-Model Probability Forecast for Precipitation for March–April–May 2022, Issued February 2022



Precipitation Forecast

IRI Multi-Model Probability Forecast for Temperature for March–April–May 2022, Issued February 2022



Temperature Forecast

About us

FECT is a federation of 7 organizations registered in four countries which works in countries across the Indian Ocean Islands and its littoral. Over the last 20 years, we have had operations in Africa, South Asia, South-East Asia but now it is mostly in the Indian Ocean Islands.

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