



F.2 (E)/2023-NDMA (MW/Advisory-II)
Government of Pakistan
Prime Minister's Office
National Disaster Management Authority
ISLAMABAD



Dated: 6 July 2023

Subject: **Weather Advisory (As per Multiple Models) 6th- 11th July 2023**

According to the latest meteorological analysis using models enclosed as **Annex A**, the deep trough of westerly wave, along with strong monsoon currents is approaching the upper air circulation. This is expected to result in **heavy to very heavy rainfall**, with **extremely heavy rainfall** forecasted over the **upper catchments of rivers Sutlej, Ravi, and Chenab**. As a result, there is a high risk of **high flow** particularly in the river Chenab. The flood levels in rivers Ravi and Sutlej will depend on the release of water from India. Additionally, **high to very high flows** are anticipated in the nullahs of river Ravi and Chenab.

2. **Western Disturbance and Monsoon Surge on 7th - 8th July 2023**

- a. Western Disturbance system extending southward, impacting areas beyond the western mountain ranges.
- b. Possibility of severe thunderstorms and heavy rainfall in **Northern and Northeastern Punjab** (including **Lahore, Sialkot, Narowal**) and Kashmir regions.
- c. Potential for urban flooding in Metropolitan cities and landslides in hilly regions.
- d. Monsoon surge entering the eastern and southeastern regions. Thunderstorms and showers expected in areas such as Tharparkar.

3. **Extended Forecast from 8th- 11th July 2023**

- a. Weather system influencing in Southern Punjab, Southeastern Punjab, and Eastern Punjab.
- b. Significant rainfall expected in these regions.
- c. Possibility of moderate to heavy rainfall in central and northern Sindh.
- d. Intermittent rainfall pattern until 11th July 2023.

4. **Hydrological Situation.** **All major rivers are currently flowing within their normal levels.** However, **flash flooding is expected in the Hill Torrents of D.G. Khan Division and local Nullahs of North Balochistan** during the next 48 hours.

5. **Meteorological Features**

- a. The deep trough of westerly wave observed over Northeast Afghanistan and adjoining areas continues to persist.
- b. The upper air cyclonic circulation previously present over Northwest Bay of Bengal is now located over West Bengal, India.
- c. Moderate to strong monsoon currents from the Bay of Bengal are penetrating the upper parts of the country, up to 5000 feet.

- d. A seasonal low is situated over Balochistan, with its trough extending northwards.
6. Relevant stakeholders are requested to ensure the corresponding actions: -
- a. City / District Administrations to ensure contingency traffic plans for areas vulnerable to flooding in cities, (especially in Lahore, Gujranwala, Sialkot and Faisalabad) catering for prompt de-watering operations in flooded underpasses.
 - b. All District Administrations to ensure completion of stock taking and reconnaissance and public awareness / information in vulnerable areas, especially Marala Headworks on River Chenab and Jassar on River Ravi with respect to chances of flood flows until 20 July.
 - c. PMD being part technical expertise at NEOC – NDMA will provide relevant input based on projections after which NDMA will issue regular consolidated updates.
 - d. Rescue Services and leading NGOs will ensure availability of personnel in the indicated areas.
 - e. All stakeholders to maintain proactive coordination in order to ensure prompt and streamlined response down to grassroots level.
7. **Press Information Department (PID) Only.** Please ensure dissemination of information on all mediums focusing on related debates by experts with GoP / NDMA data only.
8. Forwarded for information / further necessary action, please.



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Cc: Secretary to Prime Minister, Prime Minister's Office, Islamabad
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ID: PRO
DD (ICT)

Based on the analysis conducted using the following meteorological models:-

- a. ECMWF (European Centre for Medium-Range Weather Forecasts).
- b. GLOFAS (Global Flood Awareness System).
- c. FEWS (Flood Early Warning System).
- d. IFAS (Integrated Flood Analysis System).
- e. UM (Unified Model).
- f. GEM (Global Ensemble Models).
- g. GEM (Global Environmental Multiscale Model).
- h. MoM (Models of Models).
- i. Dartmouth Flood Observatory.
- j. GFMS (Global Flood Monitoring System).

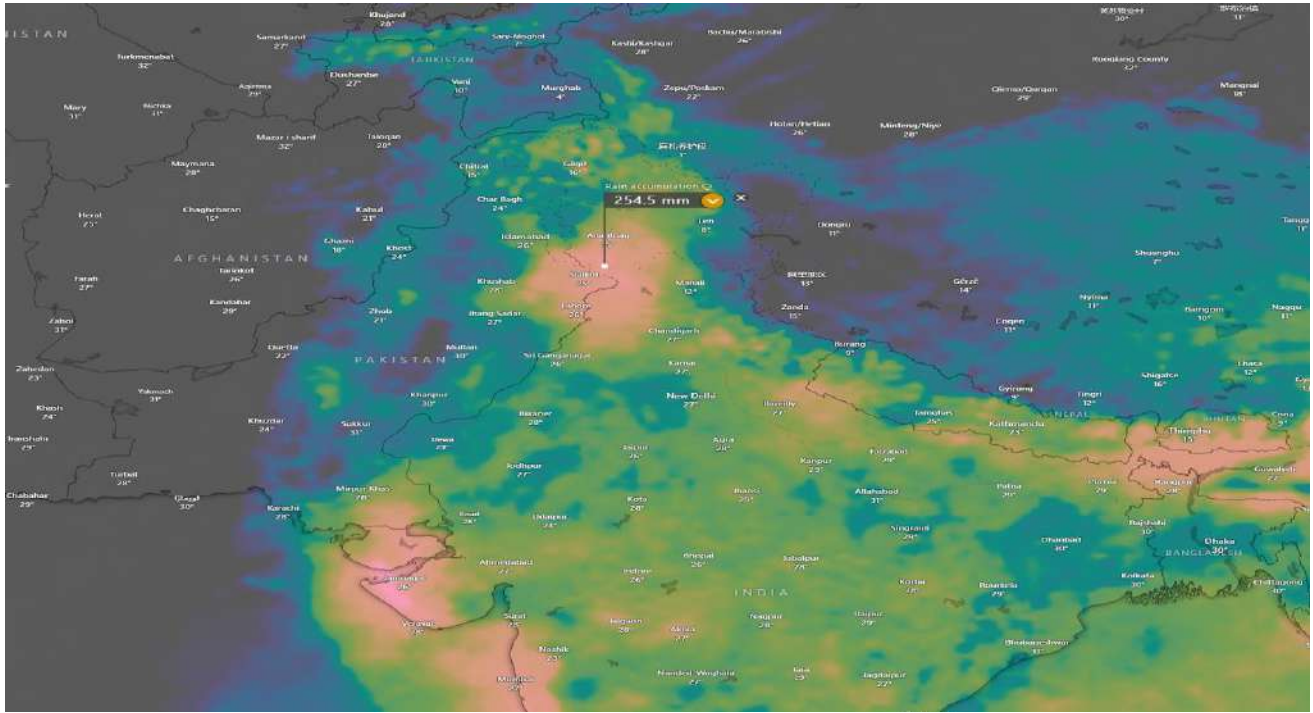


Figure 1 ECMWF Forecast Whole Spell

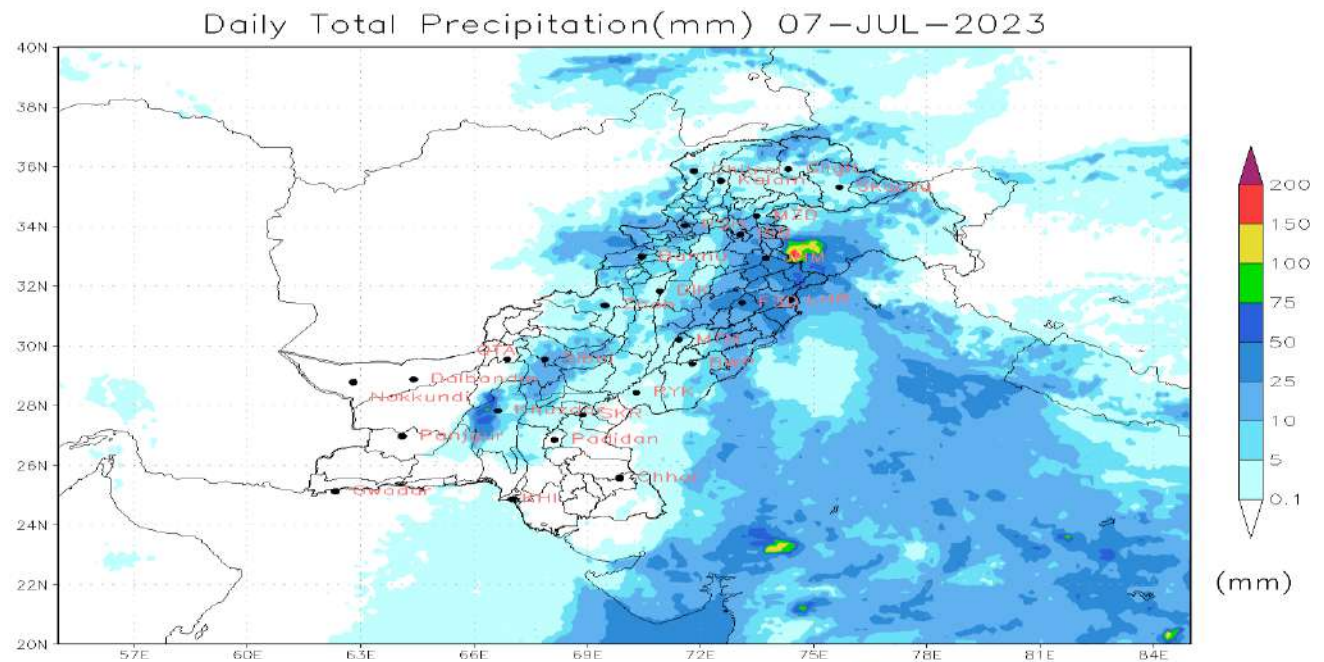


Figure 2: ICON Model Forecast 7th July

Daily Total Precipitation(mm) 09-JUL-2023

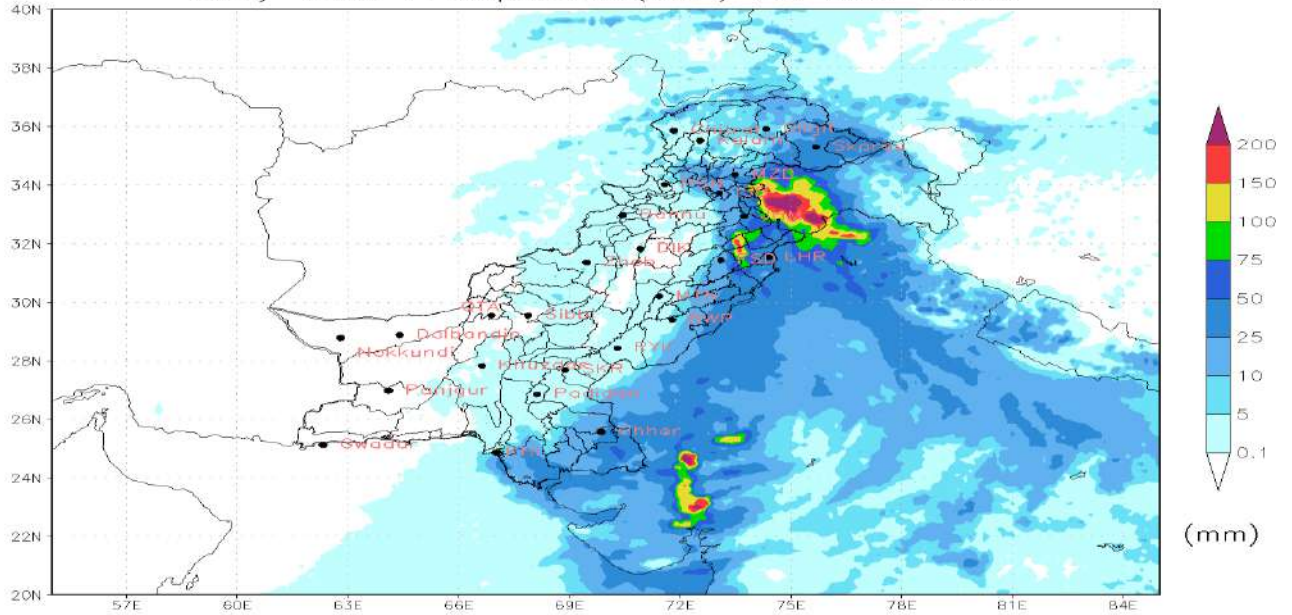


Figure 4: ICON Model Forecast 9th July

Daily Total Precipitation(mm) 10-JUL-2023

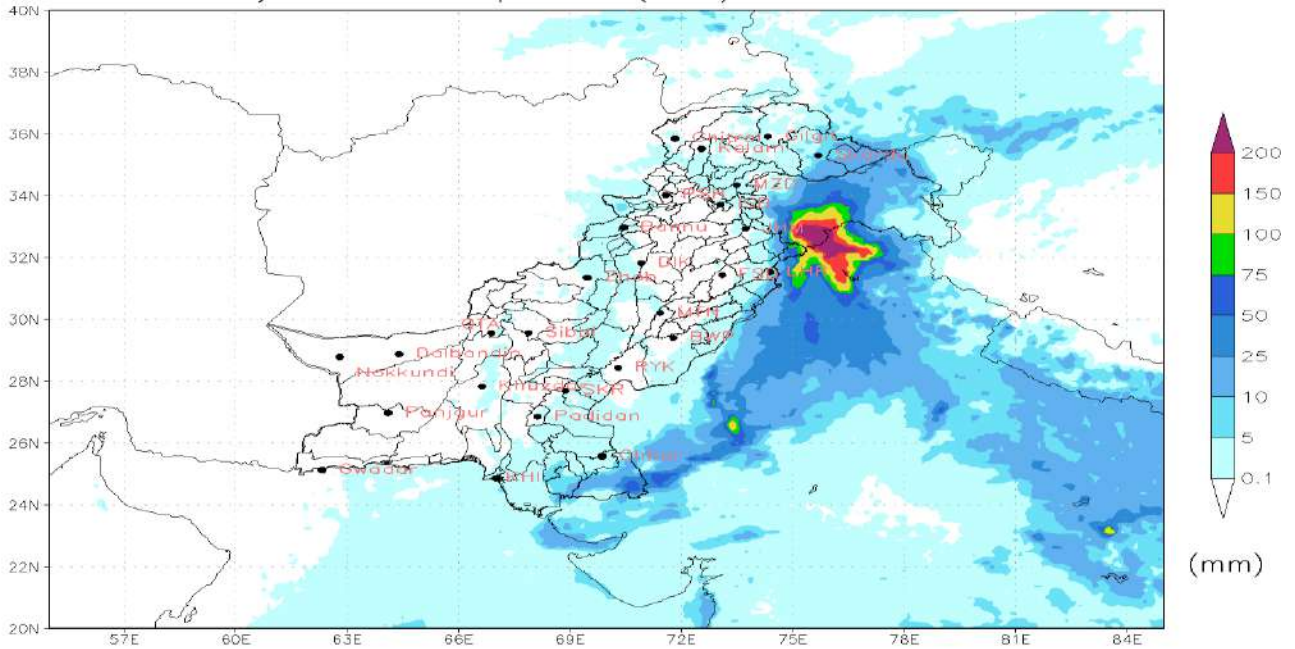


Figure 5: ICON Model 10th July

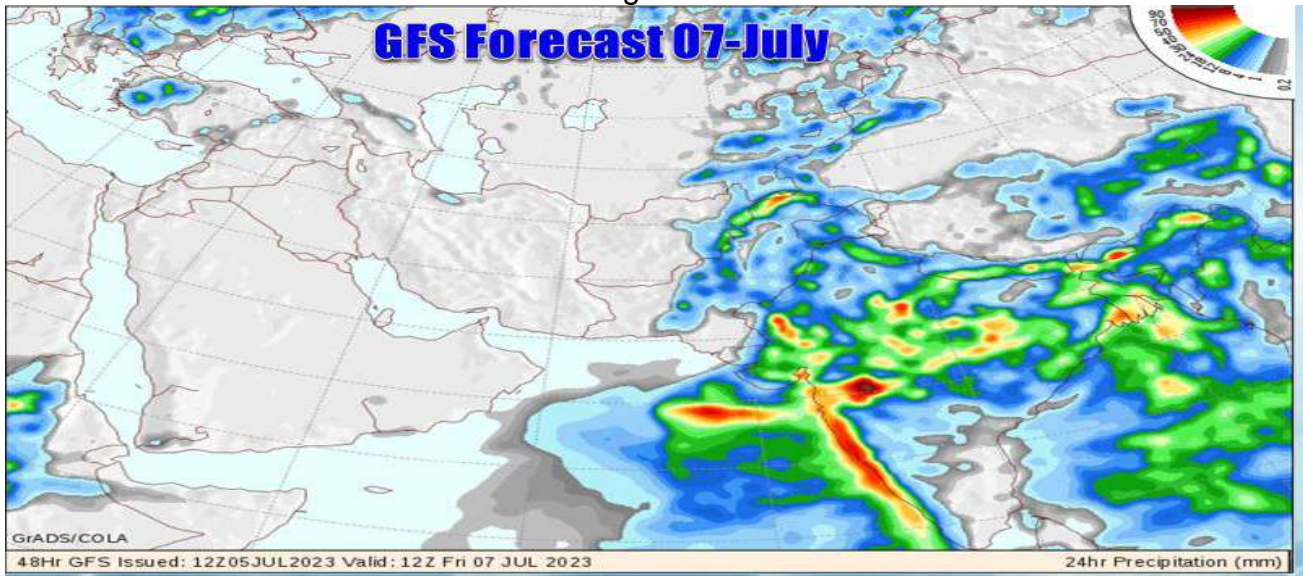


Figure 6: GFS Model 8th July

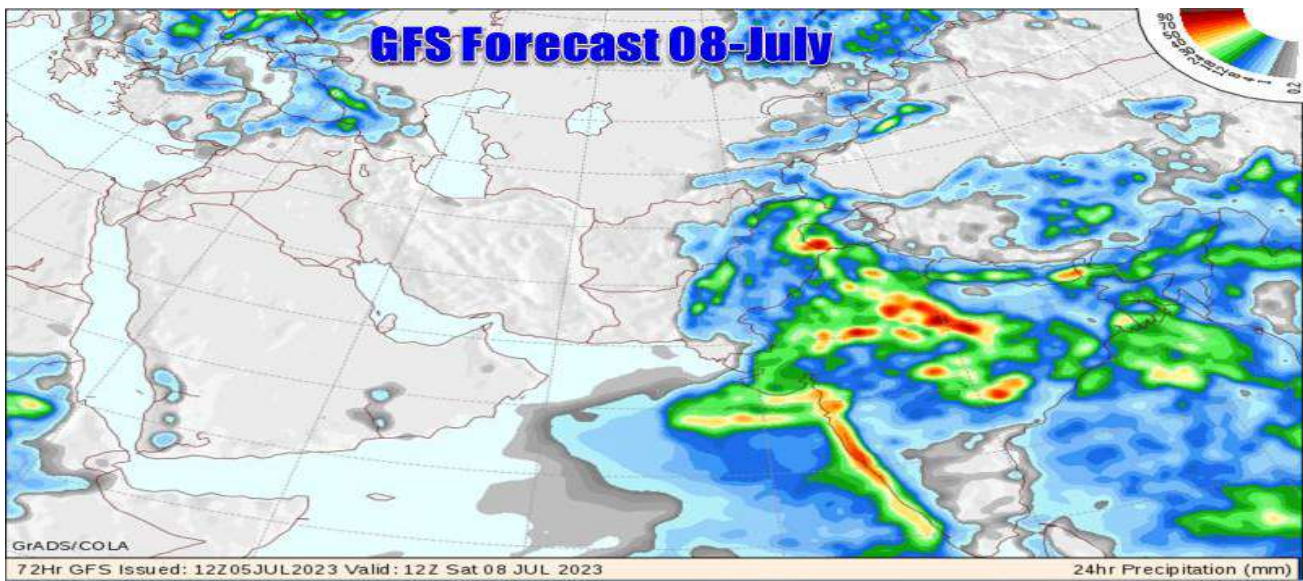


Figure 7 GFS Model Forecast 8th July

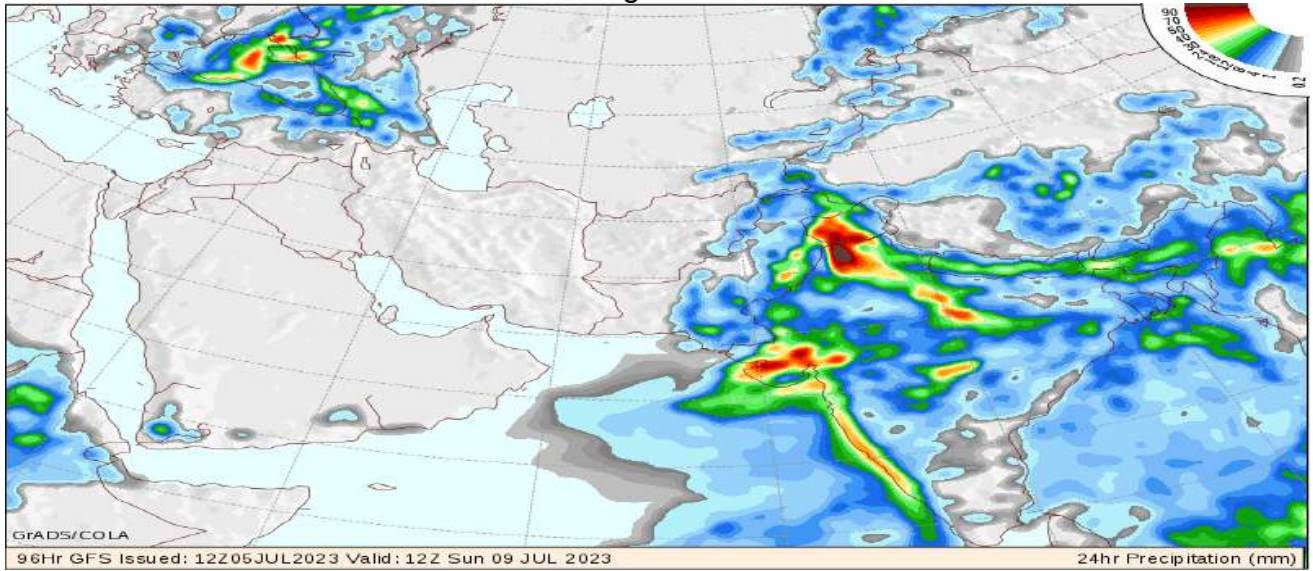


Figure 8: GFS Model Forecast 9th July

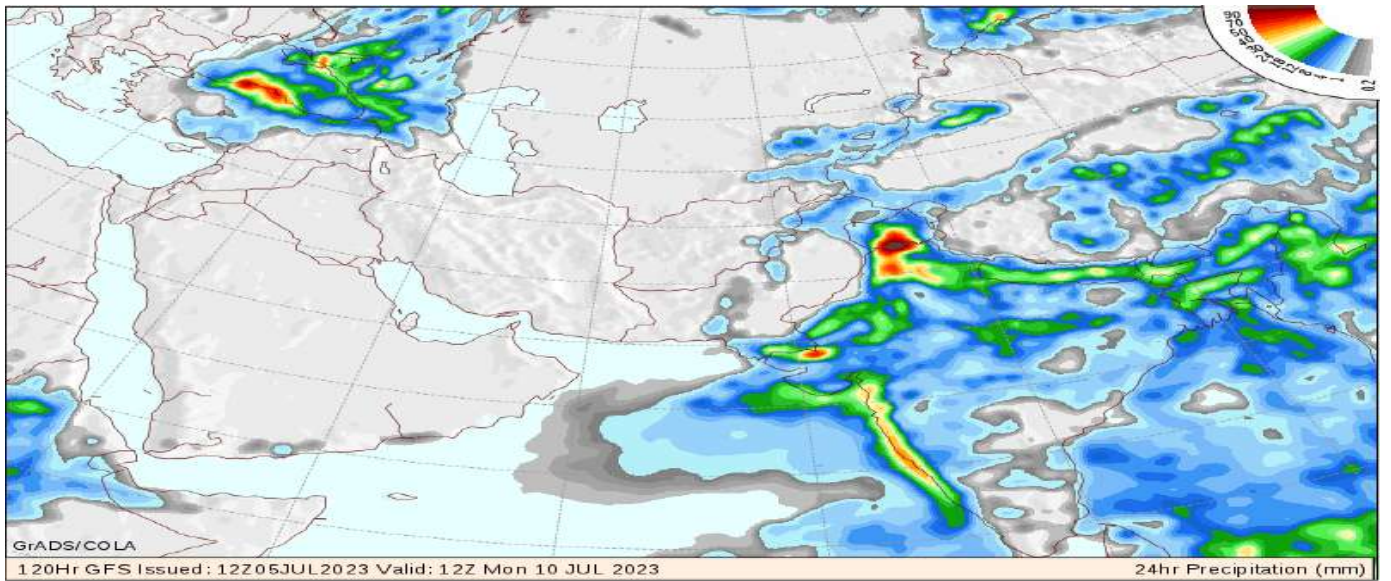


Figure 9: GFS Model Forecast 10th July

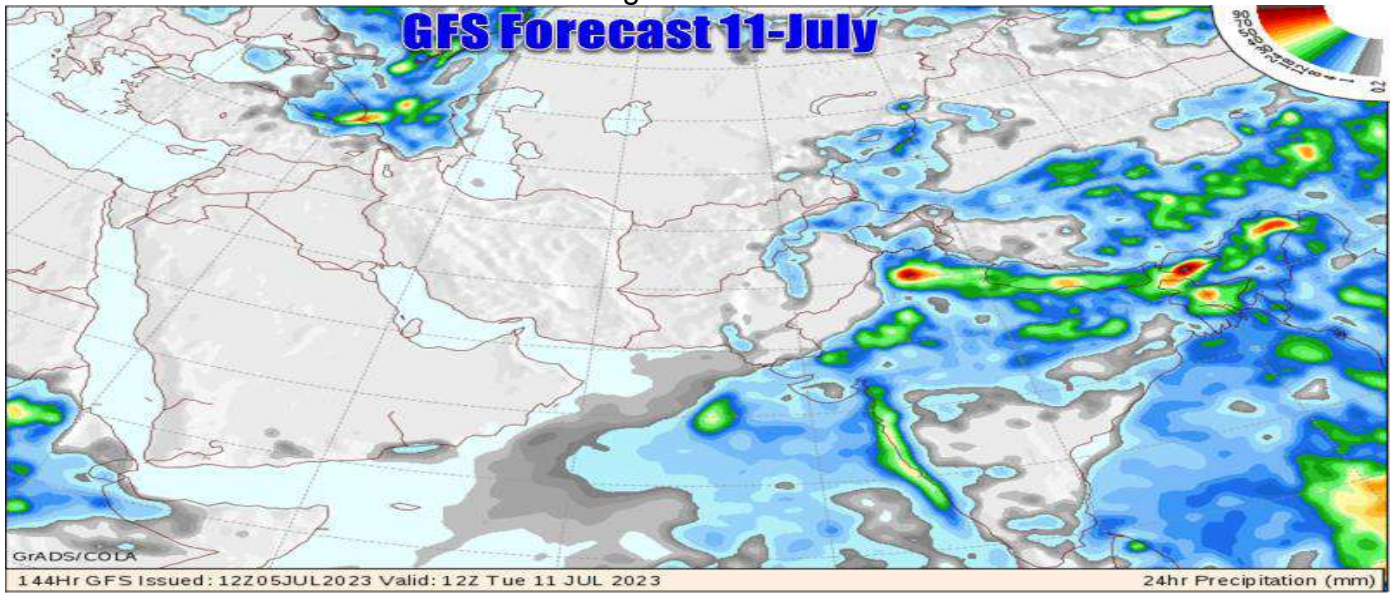


Figure 10: GFS Model Forecast 11th July