



DBCP Capacity Building Workshop on Ocean Observations for Operational Services in the Indian Ocean Region

National Report- Sri Lanka

**05 - 07 August 2025
Hyderabad, India**

SACHITH WICKRAMASURIYA

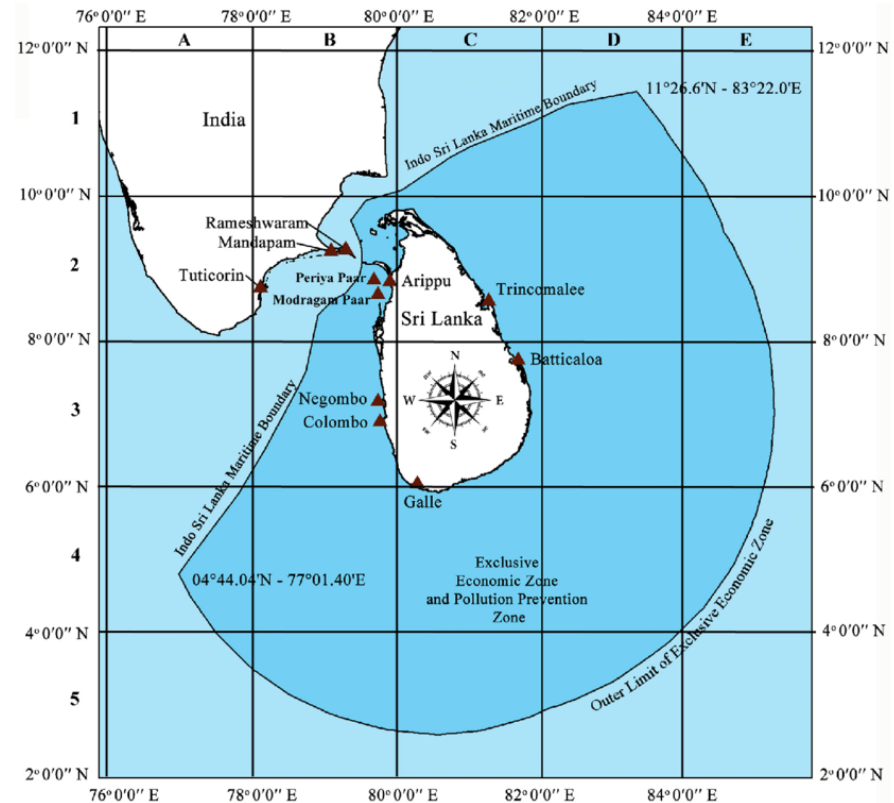
Meteorologist

Department of Meteorology Sri Lanka



Basic Marine Environment of Sri Lanka

- Main island of Sri Lanka has an area of 65,268 Km²
- The Exclusive Economic Zone (EEZ) covers an area about 510,000 Km²
- The Sri Lankan coastline is 1,340 km long
- It has 5 major ports and lots of minor ports.





Existing Capacities for Forecasting

- **WEATHER FORECAST FOR SEA AREAS AROUND THE ISLAND**
- ~ 2 times per day



කාලගුණ විද්‍යා දෙපාර්තමේන්තුව

வளிமண்டலவியல் திணைக்களம்

Department of Meteorology

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ශ්‍රී ලංකාව සඳහා සාමාන්‍ය කාලගුණ අනාවැකිය

GENERAL WEATHER FORECAST FOR SRI LANKA

ජාතික කාලගුණ විද්‍යා මධ්‍යස්ථානයේ, අනාවැකි අංශය මගින් නිකුත් කරන ලදි

Issued by Forecasting Division, National Meteorological Centre

WEATHER FORECAST FOR SEA AREAS AROUND THE ISLAND DURING NEXT 24 HOURS

Issued at 2.00 p.m. on 25 July 2025

Condition of Rain:

Showers will occur at times in the sea areas off the coast extending from Puttalam to Matara via Colombo and Galle.

Winds:

Winds will be westerly to south-westerly and wind speed will be **(35-45) kmph.**

Wind speed can increase up to **(60-65) kmph** at times in the sea areas off the coast extending from Kalpitiya to Kankasanthurai via Mannar.

Wind speed can increase up to **(50-55) kmph** at times in the sea areas off the coast extending from Hambantota to Pottuvil and from Kankasanthurai to Trincomalee via Mullaittivu.

State of Sea:

The sea areas off the coast extending from Kalpitiya to Kankasanthurai via Mannar will be rough or very rough at times. Naval and fishing communities are advised not to venture into these sea areas for next 24 hours.



Existing Capacities for Forecasting

➤ 8 DAY FORECAST FOR COASTAL AREAS AROUND SRI LANKA

~ 1 time per day

ශ්‍රී ලංකාවේ වෙරළ තීරයට දින 8 ක් සඳහා කාලගුණ අනාවැකිය

8 DAY FORECAST FOR COASTAL AREAS AROUND SRI LANKA

Issued at 4.00 p.m. on 03 December 2023

Marine Weather Division, National Meteorological Centre, Department of Meteorology.

2023 දෙසැම්බර් මස 03 දින ප.ව 4.00 ට නිකුත් කරන ලදී.
සමුද්‍රීය කාලගුණ විද්‍යා අංශය, කාලගුණ විද්‍යා දෙපාර්තමේන්තුව.

The Deep Depression over Southwest Bay of Bengal has intensified in to a Cyclonic storm located near latitude 11.8° and longitude 82.2°E, at 1330 hrs of 03 December and about 170 km northeast of Point Pedro, Jaffna. The Cyclonic storm has named "MICHAUNG" (PRONOUNCED AS "MIGJAUM"). The system is expected to move northwestward near North coast of Sri Lanka towards North Tamil Nadu coast of India. Thereafter, it would move northwards and cross South Andhra Pradesh coasts around December 05, 2023. Fishing and naval community are requested to be attentive to future forecasts issued by the Department of Meteorology in this regard.

නිරිතදිග බෙංගාල බොක්ක ශුඛුද්‍ර ප්‍රදේශයේ වායුගෝලයේ පවතින ගැඹුරු පීඩන අවපාතය, දෙසැම්බර් 03 දින පැය 1330 වන විට ශුඛු කුණාටුවක් දක්වා වර්ධනය වී උතුරු ආක්ෂාංශ 11.4° සහ නැගෙනහිර දේශාංශ 82.5° ආසන්න ප්‍රදේශයේ, යාපනයේ පේදුරු තුඩුවේ සිට කි.මී. 170 ක් පමණ ඊසාන දෙසින් පවතුනි. මෙම ශුඛු කුණාටුව "මිජවුම්" (MICHAUNG) ලෙස නම් කර ඇති අතර එය ශ්‍රී ලංකාවේ උතුරු වෙරළට ආසන්නයෙන් වයඹ දෙසට ගමන් කරමින් උතුරු නමැල්නාවුව දෙසට ගොස් පසුව උතුරු දෙසට ගමන් කර 2023 දෙසැම්බර් 05 දින වන විට දකුණු අන්දරා ප්‍රදේශයේ වෙරළ තීරයෙන් ගොඩබිමට ඇතුළුවනු ඇතැයි බලාපොරොත්තුවේ. කාලගුණ විද්‍යා දෙපාර්තමේන්තුව මේ සම්බන්ධයෙන් නිකුත් කරන ඉදිරි අනාවැකි පිළිබඳව අවධානයෙන් සිටින ලෙස සහ නාවික ප්‍රජාවගෙන් ඉල්ලා සිටියි.

දිනය Date	සුළඟ සහ වර්ෂාපතනය Wind and Rainfall Forecast (පැය 24 සඳහා වර්ෂාපතනය) (Total precipitation for 24hrs)	මුහුදු රළු පස Significant wave height (මීටර් වලින්) (in meters)	විටින් විට වැඩිවිය හැකි සුළං වේගය Wind Gust (තත්පරයට මීටර්) (m/s)
	10m wind layer: Black wind flags (in knots) Total precpit on over: the last 24 hour 	Mean wave direction and height Black wind wave roses Significant wave height 	10m wind layer: Black wind flags (in knots) 10m maximum wind gust in the last 24 hour
2023.12.04	<p>Showers or thundershowers will occur at times in the sea areas around the island.</p> <p>දිවයින වටා වන මුහුදු ප්‍රදේශවල විටින් විට වැසි හෝ ගිගුරුම් සහිත වැසි ඇතිවේ.</p> <p>Wind speed will be 30-40 kmph in the sea areas around the island. Wind speed can be increase up to 60 kmph at times and sea condition can be very rough at times in the sea areas off the coast extending from Kankasanturai to Batticaloa via Trincomalee. Wind speed can be increase up to 50 kmph at times and sea condition can be rough at times in the other sea areas around the island.</p> <p>දිවයින වටා වන මුහුදු ප්‍රදේශවල සුළඟේ වේගය පැකි.මී. 30-40 පමණ වේ. කන්කසන්තුරය සිට, ත්‍රිකුණාමලය හරහා මඩකලපුව දක්වා මුහුදු ප්‍රදේශවල සුළඟේ වේගය විටින් විට පැකි.මී. 60 දක්වා වැඩි විය හැකි අතර එම මුහුදු ප්‍රදේශ විටින් විට ඉතා රළු විය හැක. දිවයින වටා වන සෙසු මුහුදු ප්‍රදේශවල සුළඟේ වේගය විටින් විට පැකි.මී. 50 දක්වා වැඩි විය හැකි අතර එම මුහුදු ප්‍රදේශ විටින් විට රළු විය හැක.</p>		



Existing Capacities for Forecasting

➤ Multi-day Boats Forecast ~ 1 time per day



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Web : www.meteo.gov.lk

Arabian Sea

Weather:

10N - 20N, 70E-78E : Showers or thundershowers at most places.
02N-10N, 60E-80E : Showers or thundershowers at several places.
Other sea areas : Showers or thundershowers at a few places.

Winds:

10N - 20N, 60E-65E : South-westerly / (50-60) kmph; **gusting up to (70-80) kmph.**
10N - 20N, 65E-80E : South-westerly to Westerly / (35-45) kmph; **gusting up to (55-65) kmph.**
05N - 10N, 60E-80E : South-westerly / (30-40) kmph; **gusting up to (50-60) kmph.**
Other sea areas : South-westerly / (30-40) kmph.

State of the Sea:

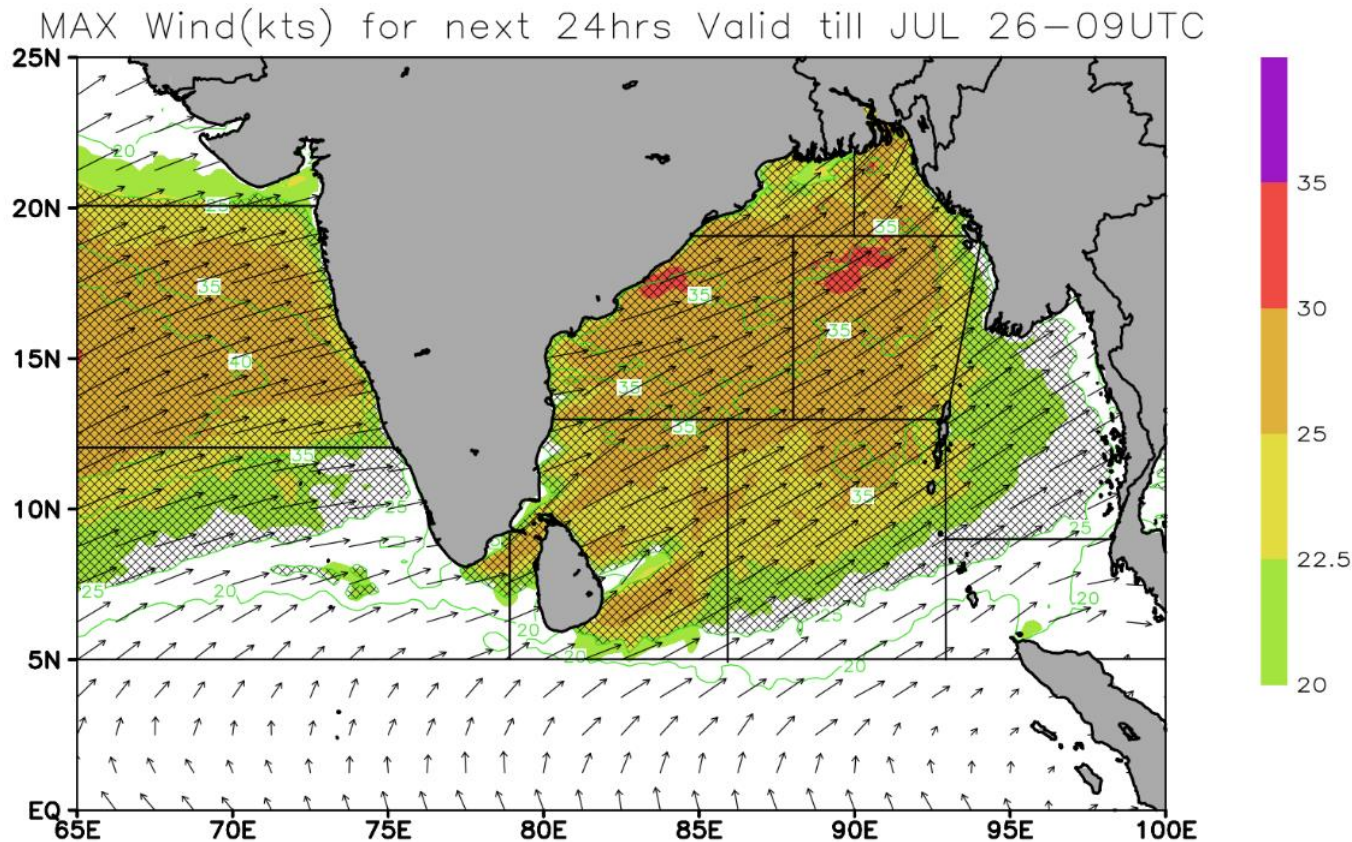
10N - 20N, 60E-65E : **Rough; very rough at times.**
10N - 20N, 65E-80E : Fairly rough to rough; **very rough at times.**
05N - 10N, 60E-80E : Fairly rough, rough at times.
Other sea areas : Moderate.



Existing Capacities for Forecasting

➤ FISHERMEN BULLETIN FOR STRONG WINDS AND ROUGH SEAS

~ 1 time per day





➤ FLEET FORECAST and SHIPPING FORECAST

24Hr Rainfall(mm) valid till 2025JUL26 at 12Z

18Hr Rainfall(mm) valid till 2025AUG07 at 09Z



Existing Capacities for Forecasting



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Bulletin No: 08

WW/O/23/05/12/01

COLOR: Red

Warning for very severe cyclonic storm "Mocha" over South-East Bay of Bengal

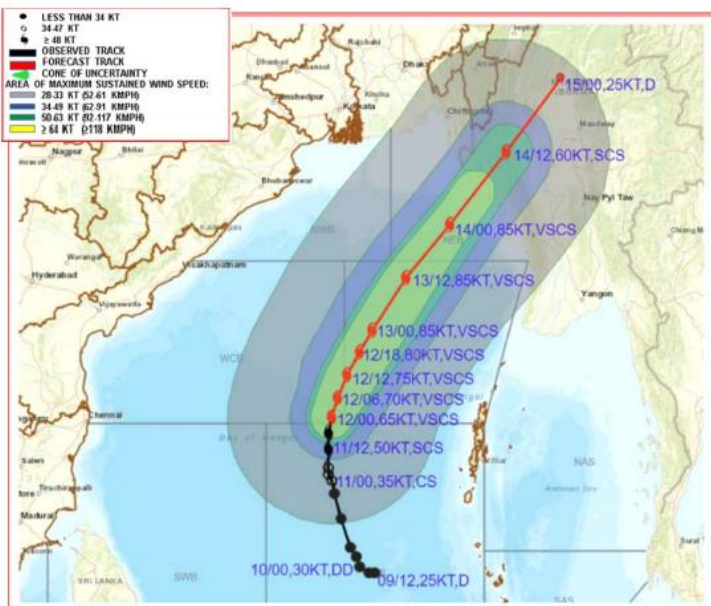
Issued by the Natural Hazards Early Warning Centre

Issued at 11:00 a.m. 12 May 2023, valid for 11:00 a.m. 13 May 2023

For Multi-day boats in the Bay of Bengal Sea area.

PLEASE BE AWARE!

cyclonic storm "Mocha" over Southeast Bay of Bengal has intensified into a very severe cyclonic storm and lay centered near 13.20N and 88.10E at 05.30 hours today (12th May). It is very likely to move north-northeastwards with further intensification and the system is very likely to cross southeast Bangladesh and north Myanmar coasts around noon of 14th May.



Expected path of the cyclone (Source: RSMC-India)

➤ Warning for Cyclonic storms



Existing Capacities for Forecasting



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Bulletin No: 08

WW/TC/24/12/22/01

COLOR: **Amber**

Weather Advisory

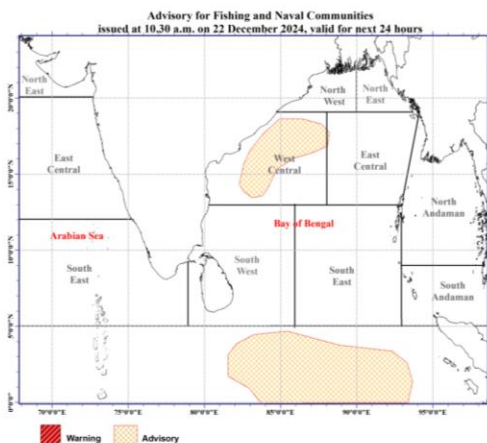
Issued by the Natural Hazards Early Warning Centre

Issued at 10.30 a.m. 22 December 2024

For Multiday boats in the sea areas of West-central Bay of Bengal and deep sea areas to the Southeast of Sri Lanka

PLEASE BE AWARE!

The depression over west-central Bay of Bengal has weakened into a low-pressure area over the same region. This system is likely to weaken further over the same region. This is the final bulletin in this regard.



Advisories:

For Sea Area

- Sea areas in the West-central Bay of Bengal will be **rough** at times as the wind speed can increase up to **(55-60) kmph** at times. Heavy showers or thundershowers are likely in these sea areas.
- Deep sea areas to the South East of Sri Lanka will be **rough or very rough** at times as the wind speed can increase up to **(55-65) kmph** at times.

Action suggested for the Sea area:

- Naval and fishing communities, engaging activities over West-central Bay of Bengal and the deep sea areas to the Southeast of Sri Lanka are requested to be vigilant in this regard.

➤ **Advisory for strong winds and rough seas For Multi-day boats in deep sea areas**



Existing Capacities for Forecasting



කාලගුණ විද්‍යා දෙපාර්තමේන්තුව
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Web : www.meteo.gov.lk

Bulletin No: 16

WW/O/25/07/25/01

COLOR: **Red**

Warning for strong winds and rough seas.

Issued by the Natural Hazards Early Warning Centre

Issued at 10.00 a.m. on 25 July 2025 for the period until 10.00 a.m. on 26 July 2025

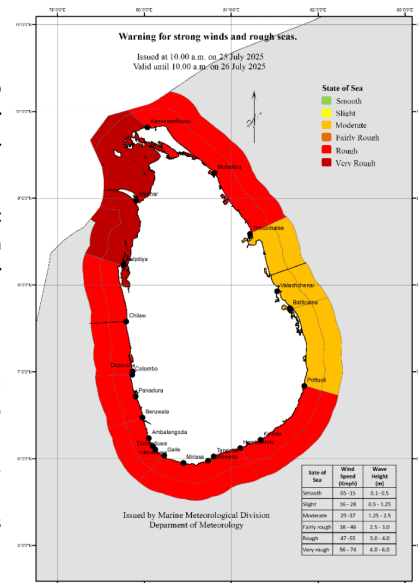
For the sea areas extending from Kalpitiya to Kankasanthurai via Mannar

PLEASE BE AWARE!

The sea areas extending from Kalpitiya to Kankasanthurai via Mannar will be rough or very rough with strong gusty winds up to (60-70) kmph.

Naval and fishing communities are advised not to venture into the sea areas extending from Kalpitiya to Kankasanthurai via Mannar for next 24 hours.

The sea areas off the coast extending from Kalpitiya to Pottuvil via Colombo, Galle and Hambantota and from Kankasanthurai to Trincomalee via Mullaittivu will be fairly rough at times with strong gusty winds up to **50 kmph**. The naval and fishing communities engaged in fishing and naval activities in these sea areas are requested to be vigilant in this regard.



Naval and fishing communities are requested to be attentive to future forecasts issued by the Department of Meteorology in this regard.

➤ **Advisory for strong winds and rough seas around the island**



Existing Capacities for Forecasting

- **'Sayuru' location-based free National Weather Alert and Warning Service for Day-boat Fishermen**
Users ~ 100, 000+





Existing Capacities for Forecasting



भारतीय राष्ट्रीय महासागर सूचना सेवा केन्द्र
(पृथ्वी विज्ञान मंत्रालय, भारत सरकार के अधीन एक स्वायत्त निकाय)

Indian National Centre for Ocean Information Services

(An Autonomous Body under the Ministry of Earth Sciences, Govt. of India)



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Regional Specialized Meteorological Centre for Tropical Cyclones Over North Indian Ocean

India Meteorological Department
Ministry of Earth Sciences, Government of India

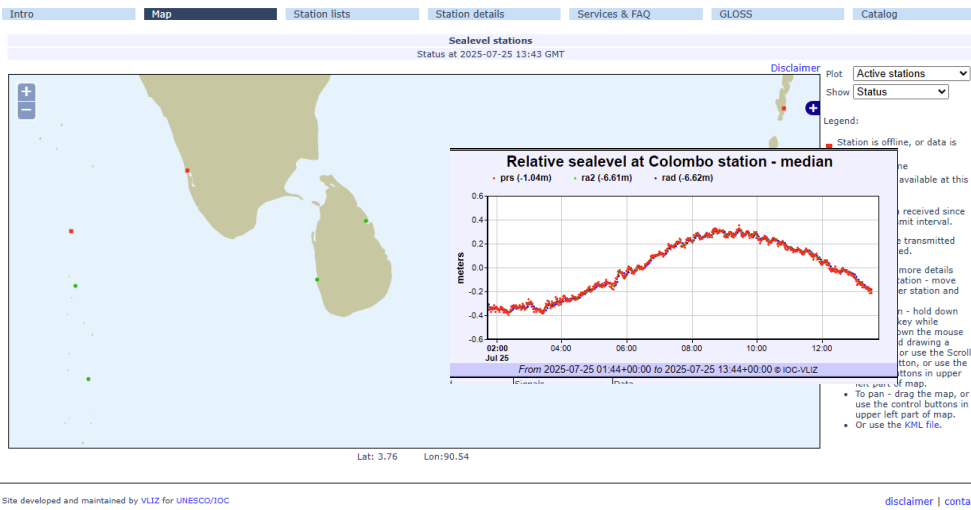


<https://rsmcnewdelhi.imd.gov.in/>

<https://www.ioc-sealevelmonitoring.org/map.php>



SEA LEVEL STATION MONITORING FACILITY

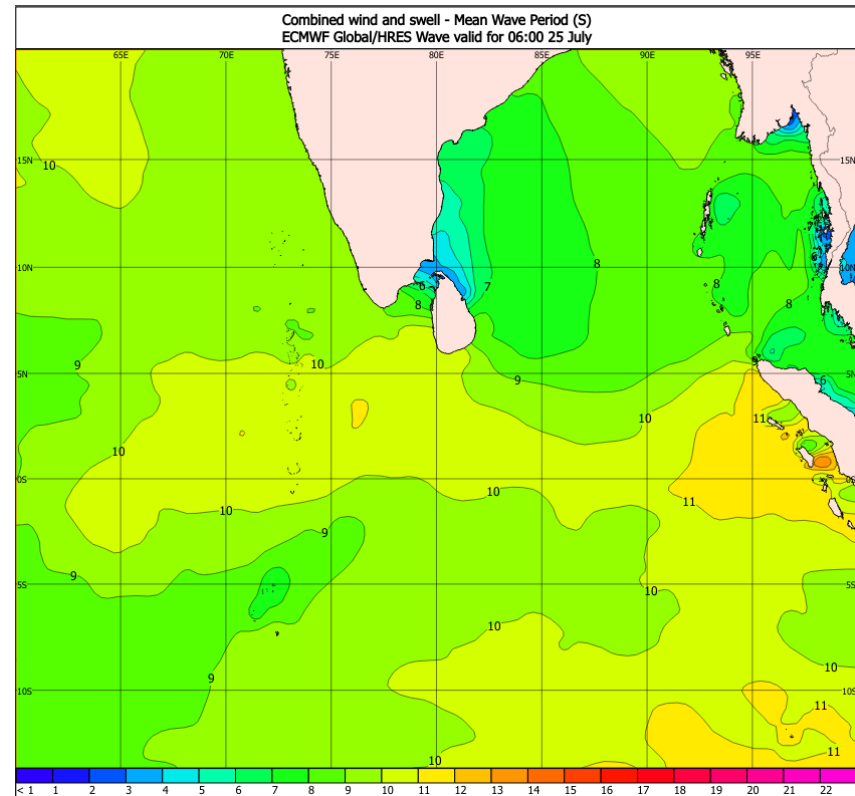
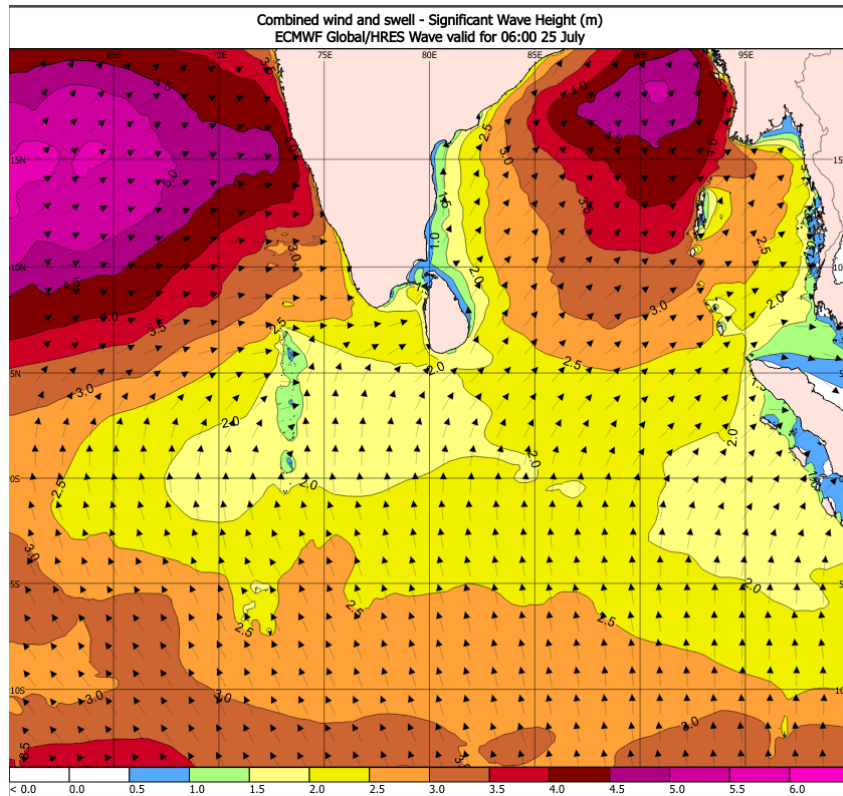




Existing Capacities for Forecasting



HRES-WAM (High RESolution Wave Model and wavewatch iii)





Gaps and Needs for Observation /Forecasting

- No observation networks ~ (only two tide gauges)

Need Observation Networks

- No marine model/experts ~

Need Experts -> Trainings

- No impacts thresholds for marine weather parameters ~

Need Studies -> Researches

- Communication gap between DOM and ground level ~

Need Information -> Dissemination Procedure/

Mechanism



Thanks for Listening

SACHITH WICKRAMASURIYA

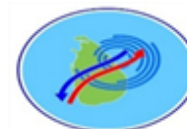
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