Indian National Centre for Ocean Information Services (INCOIS)
Ministry of Earth Sciences (MoES), Govt. of India, Hyderabad

Press Release

Updated INCOIS Advisory (Bulletin-2) on container drift and hypothetical Oil Spill from on-fire vessel WAN HAI 503 off Kozhikode, Kerala coast, issued on 12 June 2025

Indian National Centre for Ocean Information Services (INCOIS), under the Ministry of Earth Sciences, Government of India, delivers critical ocean state forecasts and advisory services aimed at safeguarding the lives and livelihoods of maritime communities. These services are especially vital during extreme weather events such as tropical cyclones, high wave episodes, swell surges, search and rescue, oil spill, etc. INCOIS employs a state-of-the-art, multi-model operational ocean forecasting system that assimilates real-time observational data from a network of coastal and deep-ocean buoys.

On 09June 2025, the Indian Coast Guard (ICG) reported a maritime incident involving the Singapore-flagged Cargo vessel *WAN HAI 503*. The vessel, en route to Nhava Sheva, Mumbai from Colombo experienced a container explosion resulting in a significant onboard fire. Initially, the vessel was located approximately 70 nautical miles from Kozhikode, Kerala. Currently based on the latest information, the vessel remains unmanned and adrift, drifting in a south-southeasterly direction at approximately 1 knot, currently 65 nm from Beypore, Kerala coast, beyond the 1000-metre depth contour. The vessel was carrying approximately 2,000 tonnes of fuel oil and 240 tonnes of diesel oil in tanks located near the fire zone, significantly increasing the risk of escalation when the fire was first reported. Additionally, the drifting containers continue to pose concern.

INCOIS promptly activated its Search and Rescue Aid Tool (SARAT) and Oil Spill Trajectory Systems. The simulation outputs help decision-makers assess the possible containers drift, spread ofoil spill, identify vulnerable coastal areas, and coordinate timely and efficient containment and clean-up strategies to minimize ecological damage.

INCOIS continues to monitor the situation and remains in close coordination with the Coast Guard, and other stakeholders, to provide updated advisories as needed.

Compared to the MSC Elsa-3 incident off Alleppey where shallow bathymetry and nearshore wave-current activity contributed to container drift and beaching. The current event occurred in deep-sea waters, where sea state and offshore current dynamics are expected to significantly reduce the likelihood of debris or containers surfacing or reaching the coastline, as most units are likely to sink to the seabed depending on their contents.

The updated information of Search and Rescue Aid Tooland simulated Oil Spill Trajectory advisories given as Annexure-1 and Annexure-2 respectively.

Disclaimer: *The information provided is based on available data and simulations run by INCOIS using Mathematical models and forecasting tools. INCOIS is not responsible for any decisions or actions taken based on this information. Users are advised to consult relevant authorities for official guidance.*

Annexure-1

Search and Rescue Aid Tool (SARAT) output for drifting/missing objects

Based on initial fire accident position of vessel (on 09 June), the simulation outputs generated by INCOIS using its Search and Rescue Aid Tool (SARAT), there is an estimated 60% probability that the containers, persons, debris which went overboard from the vessel Wan Hai 503 may beach Thalassery and Kochi in the next 4 – 5 days. The probability of beaching is especially high between Kozhikode and Kochi,as shown in Figure 1.The situation is closely monitored and updated drift directions will be provided.

This forecast provides a critical window for local authorities to enhance coastal surveillance, issue precautionary advisories to coastal communities, and prepare for potential marine hazards such as navigational obstructions or shoreline contamination.

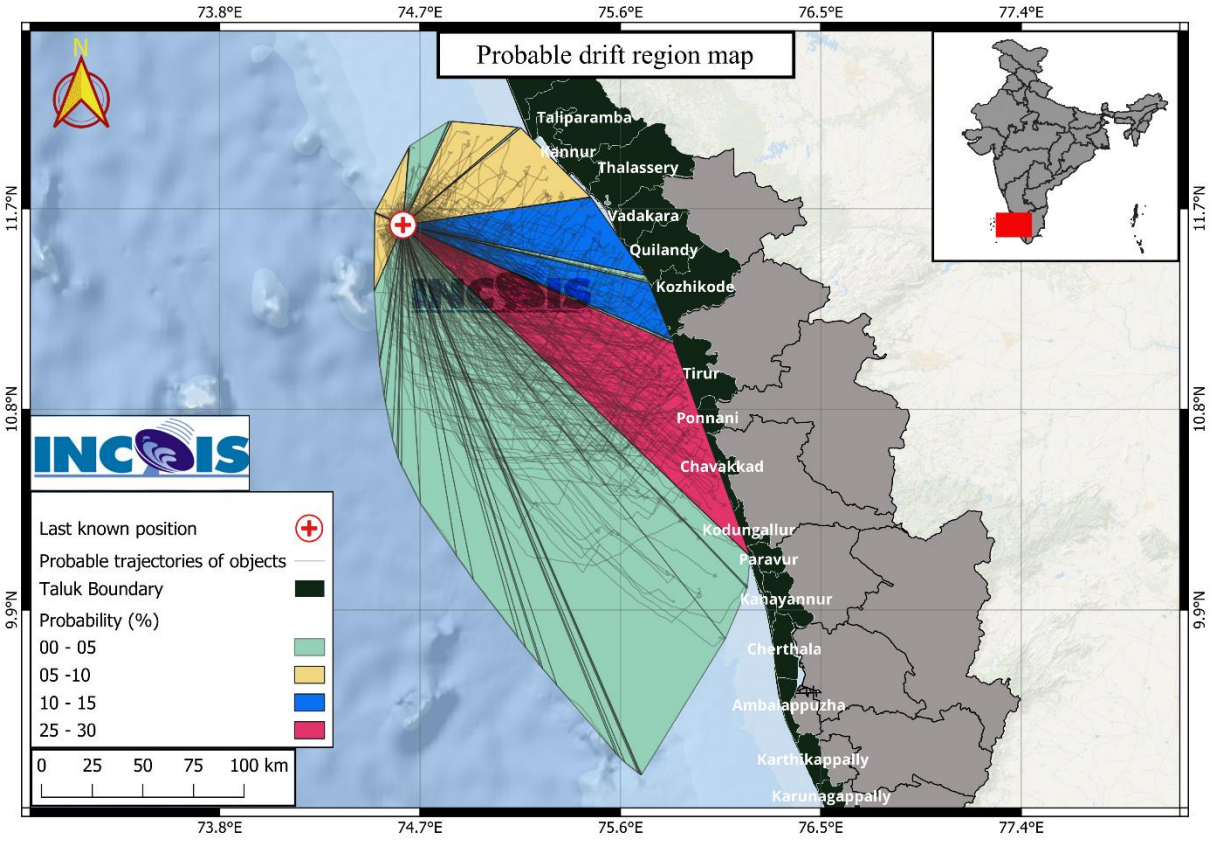

Figure 1**:** Probable drift areas of overboard containers, persons, debris.

Annexure-2

Advisory on the simulated Oil spilled Off Kozhikode

Details of the model run

Vessel location: 10.2416°N, 75.5205°E, Hypothetical Spill start at 20:00 hrs of 12.06.2025.

Pollutant considered: Fuel Oil, 100 Tons (exact oil/quantity spilled not known)

Model Run: 20:00hrs of 12.06.2025 till 2000 Hrs of 16.06.2025 IST.

Hypothetical Advisory:

Based on hypothetical simulation results, the oil spill is projected to drift southeast toward the coastline by 20:00 hours on 13 June 2025. By 20:00 hours on 14 June, the pollutant is expected to reach the coastal stretch between Ernakulam and Alleppey. By 20:00 hours on 15 June, the spill is projected to continue beaching near Haripad, and by 20:00 hours on 16 June, it is expected to reach the coast at Karunagapalli. The simulated oil drift patterns are illustrated in the accompanying Figure 2.

The black "+" symbol marks the reported spill location, while red crosses and red dots represent beached and floating oil particles, respectively. The spill movement is continuously monitored using forecast data. INCOIS will issue periodic advisories to provide timely updates and guidance for mitigation efforts.

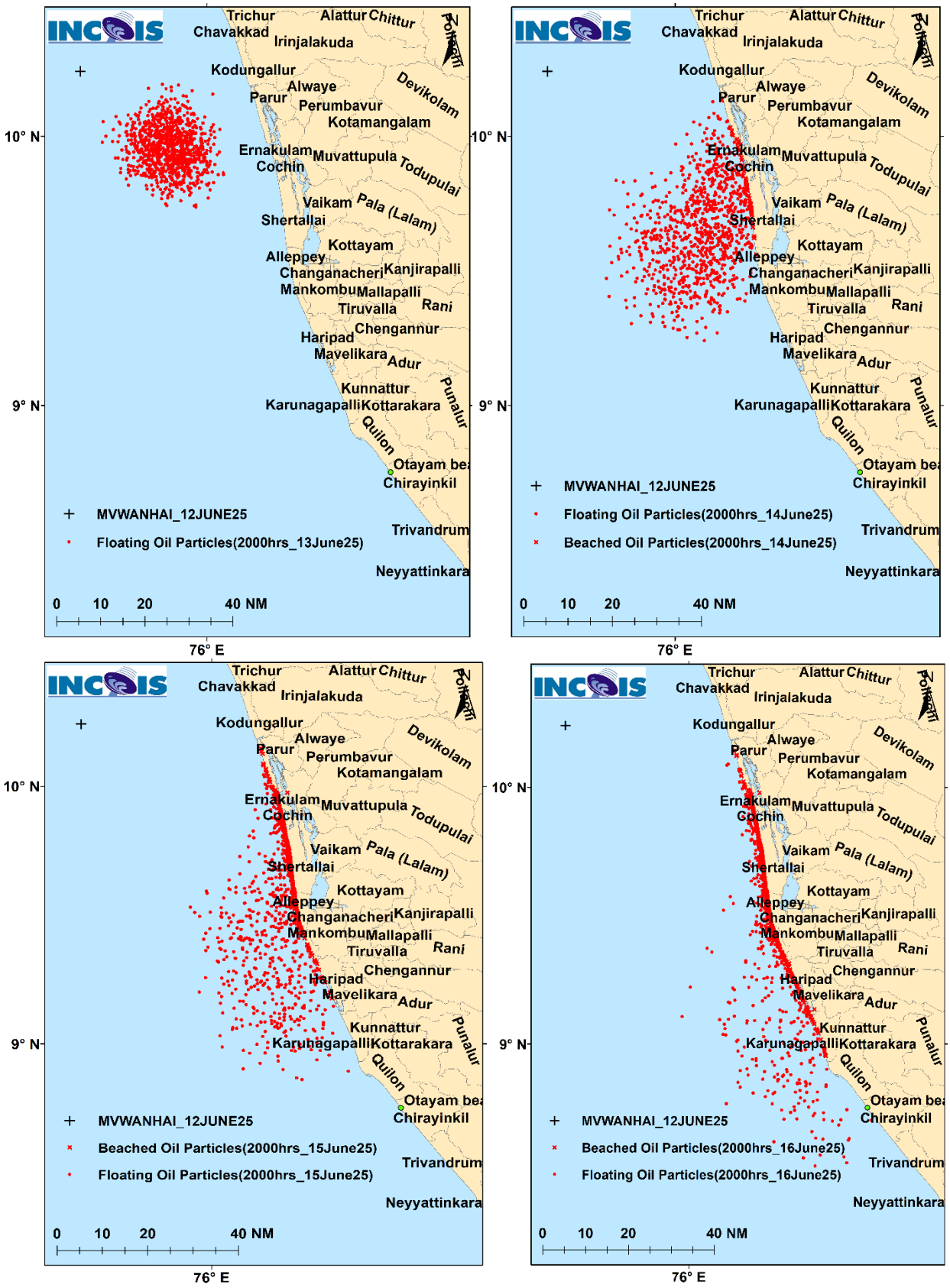

Figure 2**:** Probable oil drift patternalong Kerala coast