

OIL SPILL: ENVIRONMENT

NEWS: Environmentalists demand full disclosure of hazardous waste leakages from MSC Elsa 3

WHAT'S IN THE NEWS?

The sinking of the Liberian-flagged container ship MSC ELSA 3 off the Kerala coast has triggered fears of oil spill, plastic nurdle pollution, and chemical leakage, raising serious environmental and legal concerns. India can invoke international conventions like MARPOL, SOLAS, and national laws to seek accountability and compensation.

MSC ELSA 3 Shipwreck near Alappuzha, Kerala

- A Liberian-flagged container ship, **MSC ELSA 3**, sank off the **Kerala coast near Alappuzha**.
- The vessel was carrying **hazardous cargo**, raising fears of **oil spills, plastic pellet (nurdle) pollution**, and **chemical contamination**.
- This incident highlights concerns about **maritime safety**, environmental risks, and **lax regulatory practices** under **Flags of Convenience**.

Oil Spill: Meaning and Environmental Impacts

- **Definition:** Oil spill is the accidental release of petroleum or its derivatives into marine or coastal environments.
- **Spreading Nature:** Oil forms a slick on water and disperses rapidly due to wind and ocean currents.
- **Harmful Components:** Some chemicals dissolve or suspend in water, causing long-term ecological damage.

Key Environmental Consequences

- **Marine Life:** Oil can cause mass deaths of **fish, crustaceans, and plankton**.
- **Birds:** Oil coats feathers, causing **loss of insulation** and leading to **hypothermia and drowning**.
- **Mangroves and Coral Reefs:** These are sensitive ecosystems that get irreversibly damaged.
- **Food Chain Contamination:** Toxic chemicals from oil spills undergo **bioaccumulation**.
- **Fishermen's Livelihood:** Coastal communities suffer **economic losses** and loss of subsistence.
- **Tourism and Coastal Economy:** Polluted beaches and toxic waters reduce tourism revenue.

Methods of Oil Spill Cleanup

1. **Skimming**

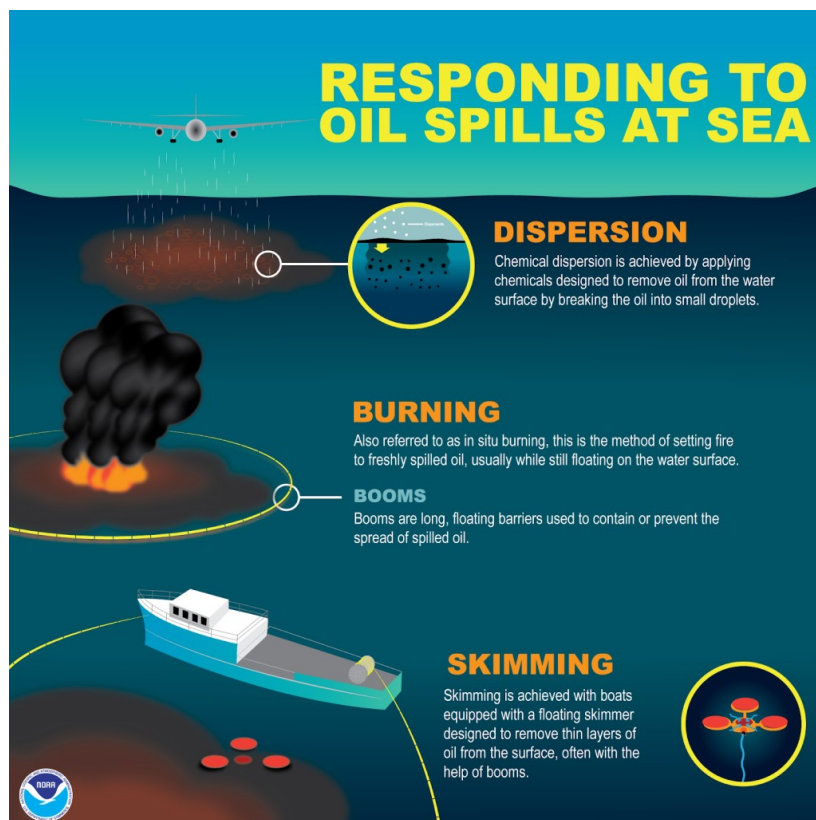
- Physical removal of oil from the sea surface.
- Example: Use of **oleophilic (oil-attracting)** pillows or materials that absorb surface oil.

2. In Situ Burning

- Controlled burning of oil slicks concentrated in one area.
- Reduces oil volume but releases **toxic air pollutants**.

3. Chemical Dispersants

- Chemicals that **break down oil into smaller droplets**, promoting microbial degradation.
- Drawback: Dispersants can be **toxic to marine organisms**, especially in enclosed ecosystems.



Challenges in Oil Spill Response

- Oil spreads rapidly, particularly in **rough sea conditions**.
- Some oils **emulsify** with water or **sink**, complicating cleanup.
- **Manual efforts** are often ineffective, especially in remote or inaccessible coastal areas.

Flags of Convenience: Regulatory Loophole in Maritime Law

- **MSC ELSA 3** was registered in **Liberia**, a country known for its **open registry** system.
- **Flags of Convenience** allow shipowners to:

- Avoid strict regulations related to **safety, labour, environment, and taxation**.
- Operate under **lenient oversight** while benefiting from **international trade access**.
- This practice undermines **global maritime safety standards**.

India's Legal Avenues and Responsibilities

1. MARPOL & SOLAS Conventions

- India is a signatory to:
 - **MARPOL** (Marine Pollution Prevention)
 - **SOLAS** (Safety of Life at Sea)
- Under **MARPOL Annex III**:
 - Shipowners and flag states are liable for pollution from **harmful substances**.
 - They are obligated to bear the **cost of cleanup and environmental damages**.
- Under **SOLAS**:
 - Cargo like **calcium carbide** must comply with the **International Maritime Dangerous Goods (IMDG) Code**.
 - India can investigate compliance with **seaworthiness, cargo stowage, and hazardous cargo handling norms**.

2. Merchant Shipping Act, 1958

- Empowers the **Director General of Shipping (DGS)** to:
 - Investigate the incident within Indian waters.
 - Demand **maintenance logs, safety certificates, and cargo documentation**.
 - Verify compliance with **IMDG Code**, structural safety, and vessel maintenance.

3. Environment Protection Act, 1986 & NGT Jurisdiction

- The '**Polluter Pays**' principle, upheld by the **National Green Tribunal (NGT)**, can be invoked to:
 - Seek **compensation for ecological destruction**.
 - Impose **penalties** on shipowners and their flag states.
- Further legal action can be pursued under the **Indian Penal Code** and **environmental regulations** for:

- Public health impacts.
- Coastal tourism and economic losses.

Way Forward: India's Response Mechanism

- India must **act promptly** to:
 - **Contain the oil and chemical spill.**
 - Launch an **independent investigation** into causes and negligence.
 - Ensure enforcement of **international maritime liability frameworks.**
 - Push for **global maritime regulatory reforms** to address Flags of Convenience.

Source: <https://www.newindianexpress.com/states/kerala/2025/May/31/environmentalists-demand-full-disclosure-of-hazardous-waste-leakages-from-msc-elsa-3>