



The South Asian Seas region comprises Pakistan, India, Maldives, Sri Lanka and Bangladesh. This is a region of biologically rich ecosystems, but high population densities and industrialisation have resulted in profound changes in coastline character. Mangrove forests, coral reefs and seagrass beds have become less prevalent, for example. In Bangladesh and India mangrove areas have been converted to salt pans and other uses. The over-exploitation of marine resources, the destruction of nursery fishing grounds, the alteration of physical habitats due to upstream activities, and decreasing water quality, particularly in locations close to major cities and industrial areas, is a common scene in the South Asian countries. Sustainable utilisation of marine resources and conservation of biodiversity are perennial concerns in the promotion of integrated coastal zone planning and management.

THE RISK OF OIL SPILLS

Although one quarter of the world's seaborne oil trade passes through the region, there are few constrictions in the major shipping routes and laden tankers are mostly in transit, sailing well offshore. However, passing ships come close to land off Cape Comorin (India) and Dondra Head (Sri Lanka), where the existence of traffic separation schemes testify to the risk of collisions. The coastal influence is strongest off the eastern coast of Sri Lanka where currents are often confused and may flow at 3-4 knots. Occasional groundings are reported from this area. Coral reefs are widely distributed in the region and represent a significant hazard to shipping, but reef groundings have been comparatively rare in the past. A summary of the major tanker spills occurring in the South Asian Seas region is given in the following table.

Major tanker spills of over 5000 tonnes in the South Asian Seas Region since 1974

| Vessel Name | Quantity spilled | | Country | Year | Cause |
|----------------|------------------|---------------|----------------------|------|----------------|
| | (tonnes) | (Type) | | | |
| TASMAN SPIRIT | 30,000 | CRUDE | PAKISTAN | 2003 | GROUNDING |
| CRETAN STAR | 29,000 | CRUDE | INDIA | 1976 | HULL FAILURE |
| CHERRY VINSTRA | 16,000 | CRUDE | INDIA | 1974 | HULL DEFECT |
| AVILES | 11,000 | WHITE PRODUCT | INDIA | 1979 | FIRE/EXPLOSION |
| TRANSHURON | 5,200 | CRUDE | INDIA, LACCADIVES | 1974 | GROUNDING |

The location of shipping routes vary according to monsoon seasons and changing currents. During the south-west monsoon (May to September), the preferred route for vessels in transit passes between the Laccadive Islands and Maldives, whilst at other times ships tend to pass north of the Laccadives. In the Bay of Bengal the main seasonal weather hazard is represented by cyclones (May to November). General shipping traffic to and from the region is dominated by the trade routes linking Karachi, Mumbai and Colombo with East African and South African ports.

Whilst there are 18 major ports and about 30 ports of intermediate size within the region, only one of the countries, India, is a large importer or exporter of oil. The fifth largest refinery in the world, with a capacity of 540,000 barrels per day, is located at Jamnagar in the Gulf of Kachchh, India. Between 1999 and 2002 India's refining capacity almost doubled from 1.1 million to 2.1 million barrels per day. In the same period the refining capacity of Pakistan increased by 70%. The principal ports handling crude oils and supplying bunker fuels to ships are Karachi, Kandla, Mumbai, Cochin, Colombo, Chennai, Visakhapatnam, Haldia and Chittagong. Due to a scarcity of deep-water ports, some crude oil shipments are routinely transferred at sea into smaller shuttle tankers (Gulf of Kachchh, Mumbai, Cochin and Chittagong).

The main offshore oil fields in production are located some 160 kilometres west of Mumbai. The crude oil is relatively light (API 30) and is either piped ashore or transferred by shuttle tanker via SBMs. In 1999 the Oil & Natural Gas Corporation of India (ONGC) suffered a blowout and fire destroying a platform in the Bombay High Field. A smaller offshore production area is located south of Chennai in Tamil Nadu, India.

Whilst the number of major oil pollution incidents in the South Asian Seas region has been small, the transit of large volumes of seaborne oil together with increasing oil importation by India and Pakistan represents a Medium Risk overall.

THE STATE OF PREPAREDNESS

With the exception of India, the South Asian countries do not have the capability to deal effectively with a spill of more than 100 tonnes in sheltered waters. Assistance from neighbouring states or from outside the region is envisaged for incidents beyond national capabilities.

National Contingency Plans have been prepared by all governments in the region. Of these, the Indian NCP is reviewed and updated regularly and the Sri Lankan NCP less frequently. The process of NCP development or review in other countries has been more sporadic but is currently receiving more attention as part of a commitment of IMO, UNEP and South Asia Co-operative Environment Programme (SACEP) to promote the adoption of a Regional Oil and Chemical Marine Pollution Contingency Plan for South Asia. Pending adoption of a Regional Plan, a Memorandum of Understanding for Co-operation on the Response to Marine Oil and Chemical Spills has been accepted by the member states.

The South Asian Seas Action Plan was adopted in 1995, but none of the regional conventions envisaged under the Plan for the protection of coastal and marine resources has yet been introduced.



SOUTH ASIAN SEAS

REGIONAL PROFILES

A Summary of the Risk of Oil Spills & State of Preparedness in UNEP Regional Seas Regions

STATUS OF CONTINGENCY PLANS, TIERED RESOURCES AND CONVENTIONS

| | Assigned National Authority | National Plan | Clean-up Resources | | Subregional Agreement | MARPOL | OPRC '90 | LLMC '76 | CLC '69 CLC '92 | FUND '92 | Inter-vention '69 / '73 |
|------------|-----------------------------|---------------|--------------------|--------|-----------------------|--------|----------|----------|--------------------|----------|-------------------------|
| | | | Tier 1 | Tier 2 | | | | | | | |
| Bangladesh | Yes | Yes | Yes | | Yes | Yes | | | | | '69 |
| India | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | '92 | '92 | '69 |
| Maldives | Yes | Yes | | | Yes | | | | '69 | | |
| Pakistan | Yes | Yes | Yes | | Yes | Yes | Yes | | | | '73 |
| Sri Lanka | Yes | Yes | Yes | | Yes | Yes | | | '92 | '92 | '69 |

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