

# Protection of the Marine Environment from Sea-Based Pollution



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# Marine Pollution: Putting the Issues in Perspective

- The United Nations estimated that 70 percent of all marine pollution originates from land, 10 percent from maritime transportation and another 10 percent from dumping at sea.
- However, marine pollution from sea-based activities is an “attention grabber” especially when it involves oil spills. Land-based pollution on the other hand is more insidious but may have longer term repercussions for the marine environment.
- Both however, are major threats to the marine environment and need to be addressed at national, regional and international level.

# Marine Pollution from the Sea: Effects

- Some effects of pollution from sea activities particularly oil spills are highly visible – oil covered wildlife, an oily coastline etc.
- However, there are also human costs such as the loss of income and livelihood which should also be highlighted. In addition, tropical ecosystems such as coral reefs and mangroves are also highly vulnerable to pollution.
- Increasingly, we are also being made aware of other effects of marine pollution – the introduction of alien species through ballast water discharges.

# What we often see

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# Marine Pollution from the Sea: Causes and Sources

- Sources of sea-based marine pollution include vessels, oil platforms, fishing boats, ballast water.
- The primary causes of sea-based marine pollution include accidents, operational or intentional discharge and dumping at sea of wastes from land.
- 90 percent of pollution incidents is caused by human error which led to accidents.
- Operational discharges are still common despite international conventions and contribute 480,000 tonnes of oil to the marine environment.

# Marine Pollution from the Sea: Causes and Sources

- Dumping at sea of industrial, radioactive and dredging wastes as well as sewage continues on a limited scale. Incineration however has been prohibited since 1991.

# What Has Been Done to Address the Problem

- Regulation through legal and non-legal tools. International conventions such as UNCLOS, MARPOL 73/78, London Convention, STCW play an important role in reducing marine pollution from sea-based activities.
- States have also established port state control MOUs to regulate standard of vessels.
- "Safer Ship Cleaner Seas".
- On the other hand the Secretary General of the UN noted that the implementation of these treaties among developing countries could still be improved.

## Could we do more?

- Countries have a major responsibility to prevent marine pollution from sea-based activities.
- Flag State and Port State control are crucial instruments. So is “physical” maritime enforcement.
- The “go-it-alone” approach adopted by the United States has also spurred improvements in ship design and construction, albeit at a price to the industry.
- More co-operation in the spirit of Art. 43 of UNCLOS and the “polluter-pays-principle.”
- Should we do more? Yes!

# Emerging trends and issues

- As we grapple with existing problems, new issues have also arisen which may need attention:
  - marine pollution caused by terrorist attacks e.g., the Limburg incident.
  - carriage of ultra hazardous radioactive material.
  - transit of vessels through environmentally sensitive areas such as the Great Barrier Reef.
  - new regulations over ship design and construction.

# Conclusion

- Our dependence on seaborne trade and the transportation of oil means that the sea will continue to be at risk from maritime transportation.
- A lot has been done to address the problem through a framework of international conventions, non-legal instruments and national actions. However the problem has persisted through a combination of human error and industry practices.
- The prognosis may be good but we have to be vigilant.
- At the same time new issues also need to be addressed.

Thank you

