

substances harmful and/or toxic to the marine environment] comparison of options, monitoring, and integrated management [and development] of coastal areas and EEZ.(36)

24. The substances involved in marine pollution caused by shipping and maritime activities vary enormously in quantities and potential harm to the oceans. In tonnage terms and visual impact the most important pollutant is crude petroleum and its derivatives. Of the approximately 600,000 tons of oil entering the oceans each year from maritime activities less than 25% is from major tanker accidents. A much larger quantity of oil is discharged as a result of normal shipping operations, e.g. pumping of bilges, tank cleaning and deballasting. The heavy concentrations of such residues in coastal areas give rise to chronic pollution, lowering aesthetic and recreational value. Offshore oil operations give rise to polluting discharges from separation of water from recovered oil and the disposal of drilling mud. Oil-well blow-outs can result in oil spillage of catastrophic proportions. There is currently no global regulatory regime for the prevention and control of pollution from offshore oil activities and only four regions have considered the adoption of legal instruments in this regard e.g. N.W. Europe in the Paris Convention, the Kuwait Action Plan Area's Kuwait Protocol, the Caribbean Countries' and the Mediterranean Countries' Barcelona Protocol now under consideration.(43)

25. On the other hand, many chemicals carried by sea are intrinsically far more harmful to the marine environment. Some can bio-accumulate in quantities that present a danger to human health, while others taint fish, making them unsuitable for human consumption. Of the global merchant fleet of approximately 70,000 ships, some 7,000 are tankers. The global chemical tanker fleet has doubled in the past 10 years to approximately 1,000. A substantial volume of other chemical products are carried in packaged form such as drums or in especially constructed containers. Up to 15% of goods carried in dry cargo ships are dangerous to some degree. These, together with liquid substances carried in oil and chemical tankers, make about half of the total cargo carried by the sea.(44)

26. Another cause of pollution is that arising from disposal of wastes at sea. Plastics and other solid wastes are extremely persistent and potentially harmful if ingested by seabirds and marine mammals. By changing industrial processes and the use of recycling methods and improved waste treatment techniques the amounts of wastes dumped at sea have been reduced. In spite of these efforts, disposal at sea of certain waste types, particularly uncontaminated dredged materials, continues to be considered practical and environmentally acceptable. More attention must be paid to the selection of dumping sites, dumping techniques and monitoring programmes and the application of hazard assessment techniques within a licensing regime which can provide the necessary level of marine pollution prevention and control.(45)

27. In addition to the environmental impact of oil spills there are frequently economic repercussions for coastal communities or small countries reliant on the resources of the sea. Automatic financial access to resources to cover clean-up costs and economic damage through liability and compensation regimes have done much to mitigate the effects of accidental oil pollution by facilitating prompt and effective counter-pollution operations.(46)