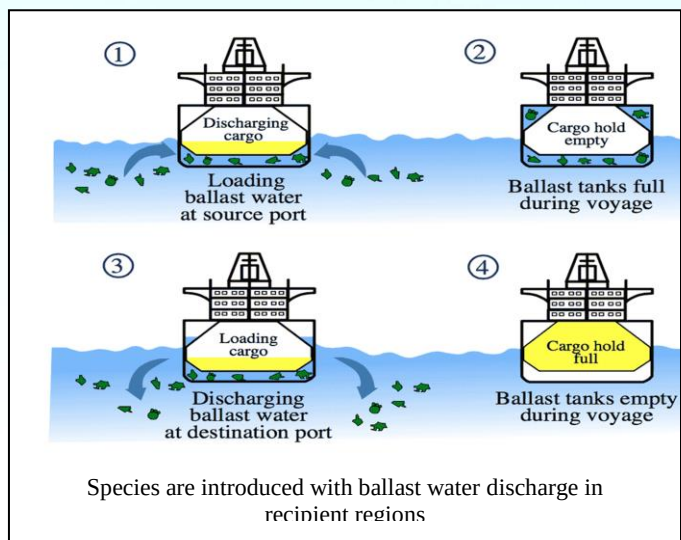


Regional Ballast Water Management Strategy for South Asian Seas Region

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Need for Ballast Water Management studies carried out in several countries have shown that many species of bacteria plants and animals can survive in a viable form in the ballast water and sediment carried in ships, even after journeys of several weeks duration. Subsequent discharge of ballast water or sediment into the waters of port states may result in the establishment of colonies of harmful species and pathogens which can seriously upset the existing ecological balance. Although other methods have been identified by which organisms are transferred between geographically separated sea areas, ballast water discharge from ships appears to have been prominent among those identified. The potential for ballast water discharge to cause harm has been recognized not only by the International Maritime Organization (IMO), but also by the World Health Organization which is concerned about the role of ballast water as a medium for the spreading of epidemic disease bacteria. Invasive alien species (IAS) have caused many environmental, economic and health impacts. The major impact of IAS is loss biodiversity on a global scale. At least 39 per cent of the species extinctions during the past 400 years are due to IAS (Marabe, et al., 2011). The South Asian region is considered as a region with high biodiversity in the world and highly vulnerable to the impact of IAS. Environmental impacts include loss of native biodiversity due to preying on or competing with native species, decreased habitat availability for native species, smothering and overgrowth, parasites and disease, as well as hybridization. Causing genetic dilution, for example, Mediterranean mussel is dispersed with ballast water and by fouling ship hulls and is now well established in temperate regions around the globe. It has displaced several South African native mussel species and appears to out compete and hybridize with its close relatives on the US west coast. Change to the ecosystem function includes changes in nutrient cycles and decreased water quality. In Africa and South East Asia, there are a number of problems caused by the IAS water hyacinth. The dense mats of these plants clog waterways with their ability to take over entire lakes and rivers. The plant causes the lowering of dissolved oxygen levels and thus reducing the amount of fish to live in the waterways. This has impact on fishing and shipping industry. Impacts to human health and wellbeing decreased recreational opportunities and overgrowth of aquifers and smothering of beaches, as well as parasites and diseases.



The spreaders of toxic phytoplankton and increasing occurrence of harmful algal blooms are significant health concern. For example, one of the Mexican pacific coast outbreaks of paralytic Shellfish Poisoning caused by the introduced dinoflagellate caused over 30 deaths by close to 500 people hospitalized. Also cholera is known to mutate into new strains and travel widely in ship ballast water. Also Peru widespread cholera epidemic in 1991 was caused due to introduction of a virtual strain of cholera from Asia through ballast water. Economic impacts can result from interference with biological resources that support fishing and Mari culture, interference with fisheries, disruption to tourism, damage to infrastructure and costs of treatment, clean up or control.

The region has identified this issue already and has taken necessary action to draft a South Asia Regional Strategic Action Plan to minimize the transfer of harmful aquatic organisms and pathogens in ship ballast water and sediments with the assistance of the South Asian Seas Programme which comes under the umbrella of South Asia Co-operative Environment Programme (SACEP) and International Maritime Organization (IMO). South Asian Seas region lies within one of the busiest shipping lanes globally as it falls within the oil conveyor belt from the Gulf to East Asia. Therefore, ballast water can pose serious economical and ecological damage through introduction of invasive alien species to our coastal and marine waters. The International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM) contains measures to prevent the potentially devastating effects of the spread of harmful aquatic organisms carried by ships' ballast water. It requires all ships in international traffic to implement a Ballast Water and Sediments Management Plan, to carry a Ballast Water Record Book, and an international ballast water management certificate. All ships will have to undertake ballast water management procedures to a given standard. Existing ships will be required to do the same, but after a phase-in period. The BWM Convention was adopted on 13 February 2004 and is not yet in force. Presently out of five maritime countries of South Asia, only Maldives is signatory to the BWM Convention. The function of the Ballast Water Management Plan is to assist in complying with quarantine measures intended to minimize the risk of transplanting harmful aquatic organisms and pathogens from ships' ballast water and associated sediments, while maintaining ship safety. As part of this function the plan will provide information to quarantine officers who wish to learn about a ship's ballast handling system, or to confirm that the ballast management has been effectively planned.

The International Maritime Organization (IMO) organized the South Asia Regional Ballast Water Management Strategy Development Meeting in Mumbai, India in May 2012 and it was decided that SACEP, as the Secretariat for the South Asian Seas Programme, would be the Institutional Framework to support and finalize the Draft Regional BWM Strategy and to ensure the execution of the Action Plan. It was also agreed to establish a Regional Task Force to facilitate the process. This activity was presented and approved at the 5-IMM of SASP held in Islamabad in December 2013. With the financial and technical support from the International Maritime Organization (IMO), through the GEF-UNDP-IMO GloBallast Partnerships Programme Coordination Unit, a two-day regional workshop was held in order to discuss the development of a Regional strategy for Ballast Water Management (BWM), from 24 to 25 February 2014 in Colombo, Sri Lanka. All the maritime countries in SACEP region Bangladesh, India, Maldives, Pakistan and Sri Lanka have nominated their Focal Contact person to facilitate their national Ballast water strategic plan. Sri Lanka already prepared their draft 'National Ballast water management strategy plan'. A work plan and implementable time table was prepared during regional workshop was held from 24-25 February 2014 in Colombo, Sri Lanka. The work plan and regulations were sent to the focal points for further necessary action. One of the important decision was to select a port in each country for base line survey, biological data monitoring and risk assessment system. Another Regional Workshop is proposed to be held in the 3rd quarter of 2016, after receiving the progress of achievements of the five maritime countries.

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