

The bay of bengal  
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is a zone of the  
indian

[Parts of the World, Asia](#)



The Bay of Bengal Large Marine Ecosystem (BOBLME) is a zone of the Indian Ocean located on the west of India spreading towards the Malay Peninsula. BOBLME is an area of about 2, 090 square km's, which includes certain coastal and Exclusive Economic zones of eight different nations namely, Bangladesh, India, Maldives, Myanmar, Indonesia, Malaysia, Sri Lanka and Thailand. (Dietz, R. S. 1953).

Among these countries, 100 percent of the EEZ of Sri Lanka, Myanmar and Bangladesh while the other five countries have only a certain area of their coastlines with in the BOBLME. While a significant proportion of the LME is international waters which are not subject to any of the eight nations authority. (Seitzinger, S. P. and Pedde, S. and Kroeze, C. and Mayyorga, E. 2014)The BOBLME's coastal area covers an area of more than six million square kilometers which is moderately a very productive ecosystem. Which includes coral reefs, islands, rivers and continental shelves. (Dietz, R. S. 1953)As per the latest statistics a population close to 2 billion people lives in the BOBLME area which is about one-quarter of the entire world's population. Astonishingly a quarter of this 2 billion people live in the coastal areas which is expected to rise. (Vivekanandan, E. , Hermes, R. , & O'Brien, C. 2016).

When it comes to the negative impacts of human activities and climate changes, the ecologically rich BOBLME is no exception. This assignment will highlight the general benefits and also discuss the threats faced to BOBLME.

2. Biological Significance of the LMEAs mentioned earlier the LME has a very high biologically productive ecosystem, especially in its coastal areas where the 12% of worlds coral reefs are found. It is documented that the LME holds

8% of the world's mangroves, and one of the largest estuaries in the world. BOBLME is home to 15 type of seagrass beds and several wetlands, namely Palk strait, Sunderban and Gulf of Mannar. Sunderban stands as the worlds largest mangrove which has been considered as a world heritage site by the United Nations Educational, Scientific and Cultural Organization (UNESCO). (Seitzinger, S. P. , Pedde, S. , Kroeze, C. , & Mayyorga, E. 2014).

In addition to this, BOBLME is home to a diverse range of marine animals, including groups of species that are endangered or vulnerable to human impacts. These vulnerable species include cetaceans, seabirds, turtles, sea snakes, fish, dugongs, gastropods, sea cucumbers, sponges, sea fans and corals. (Murphy, N. 2015). Characterization of The LME's Ecosystem; Benefits There are several high level drivers in the BOBLME has a tropical monsoon climate with the main oceanic current systems within the Indian Ocean region. The major seasonal features are strength and direction of the seasonal currents along with the strength of wind direction and strength and also the rainfall patterns and cyclone activities with in the area. Studies have emerged that these seasonal features are the main drivers of the high marine productivity in the area.

According to environmental experts with in the region, they have identified additional 29 ecosystem sub-regions within the BOBLME. Which includes shallow shelf, slope, deep abyssal and offshore ridge systems (<https://www.boblme.org/documentRepository/BOBLME-2015-Brochure-05.pdf>) Over the past two decades the coastal areas of BOBLME region countries have experienced high levels of industrial developments. According to an estimate

by BOBLME project in 2015, the marine and coastal ecosystem services in the BOBLME may currently be worth more than USD 72 billion a year. 'Below are the main areas where the BOBLME region countries benefit from.

**Fisheries and Aquaculture:** Fisheries and Aquaculture activities within the BOBLME region provides income and employment to nearly 3.7 million people in the region. More than 10 percent of rural households depend on fishing as a primary source of income and or employment, while another 7.5 million people are employed in fisheries related activities. The annual fisheries production in the Bay of Bengal sums up to 6 million tonnes which is more than 7% of the entire world's catch.