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## 21<sup>st</sup> century gunboat diplomacy and strategic sea areas

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Throughout history, states have attached great importance to seas in terms of economic and security. Advanced civilizations have always founded in coastal regions. Over time, human being has tended to trade and naturally always aimed get more and more. Seas by covering 71% of the earth provide the greatest economic opportunities for access to raw material resources and the world market. As a result, seas have become the most important areas of conflict over the course of time. Coastal states, use seas as a tool for defense zone, trade, marine transportation and power transfer, they have acquired colonies overseas and increased their capital, raw materials and labor. Societies have increased their economic prosperity though their navies in order to retain their welfare and achieve their foreign policy objectives. Sometimes they have imposed their demands through the use or threat of limited naval force in accordance with their interests that is gunboat diplomacy. Gunboat diplomacy has been and continues to be applied consistently in solving problems by the stronger side of the problem. Today we can see samples of gunboat diplomacy used in the eastern Mediterranean during Ukraine crisis in dispute between North Korea and South Korea and the ongoing power struggle in Asia-Pacific.

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## Distribution and contamination of heavy metal in the nearshore sediments of Gulf of Mannar, India

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The area under investigation is located in the south east coast of Tamil Nadu, Gulf of Mannar, India. The coastal zone is of high interest, since over the past four decades this region has seen the development in industries, urbanization and coastal mining. A detailed geochemical investigation is important for the determination of possible pollution problems. Therefore, the objective of the present paper is to investigate the spatial variation of heavy metals in sediments and to examine the pathway of heavy metals and their source into the Gulf of Mannar. The coastal sediments of Gulf of Mannar are recovered from the mouths of major river and nearshore and are analyzed using ICP-ES for heavy metals after total dissolution. The geo-accumulation index and the enrichment factor are estimated to assess contamination status based on background values. The area is affected by pollution from non point sources such as port development activities, shipping, land runoff from river and mining. Spatial assessment and multiple sediment sampling during the north and south monsoon have been used to measure the concentrations of heavy metals. Similarly, PCA has helped to segregate the source of metals in the Gulf of Mannar. Metals such as Cu, Co, Zn, Pb, As, and Cd are comparatively higher and their enrichment observed close to the major urban areas associated with industrial activities. The higher concentration of Fe and Pb are probably derived from transportation and navigation. Strong coastal currents during the northeast monsoon have influenced the sediment quality in the Gulf of Mannar.

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