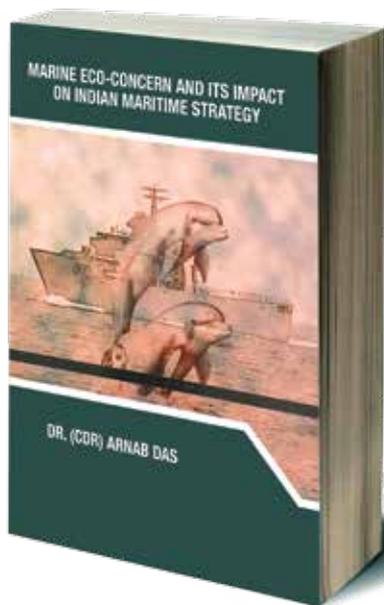




# A COMPREHENSIVE MARITIME STRATEGY

Marine Eco-Concern and its Impact on Indian Maritime Strategy, authored by **DR. (CDR) ARNAB DAS**, provides a deep insight on the unique concept of Underwater Domain Awareness (UDA) to attain a sustainable, secure and efficient maritime growth in the Indian Ocean Region (IOR)



## **MARINE ECO-CONCERN AND ITS IMPACT ON INDIAN MARITIME STRATEGY**

**Author:**

**Dr. (CDR) Arnab Das**  
**Maritime Research Center**  
**Indian Maritime Foundation**

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The book dedicated to the 'sustainable blue economy' for India in the Indian Ocean Region (IOR) was released recently at an event under the aegis of the Indian Maritime Foundation, Pune. The event was marked with an insightful evening discussion on sustainable development, marine conservation challenges, acoustic habitat degradation and maritime strategy perspective outlining the broader theme of the book. Speakers from the academia, maritime industry, marine mammal specialist, marine conservation people and the maritime strategy experts from Navy did complete the quorum besides the author. The venue at the Maharashtra Chamber of Commerce, Industries and Agriculture (MCCIA) did provide the perfect backdrop for a relevant and exclusive interaction on the sustainable blue economy.

The book touches upon a unique aspect of the marine eco-system that has rich bio-diversity but is much less understood. The efficient propagation of acoustic signals in the underwater medium also means that the marine species specifically the marine mammal's use sound for multiple biologically critical functions like foraging, communication, navigation, finding mates, avoid predators, etc. The increasing human activities in the maritime domain are directly impinging on the soundscape of the ocean environment. The increasing anthropogenic noise is causing serious habitat degradation for the marine ecosystem. The Indian Ocean Region (IOR) due to its strategic relevance is emerging as a hotspot for maritime activities in the 21st century and the unregulated increase in the anthropogenic noise is a cause of serious concern. The geopolitics and the geo-economics of the IOR make it extremely complex to plan any meaningful conservation initia-

tive. To add to that the tropical shallow waters of the IOR ensure the suboptimal performance of the sonars deployed in the region, so acoustic monitoring of the marine mammal's population and also habitat assessment is highly limited. The book does attempt to put in perspective the aspect of acoustic habitat degradation and also the complex interplay of issues in the IOR.

The unique concept of Underwater Domain Awareness (UDA) proposed in the book addresses the resource requirement issue for any conservation initiative. The pooling of resources by all the four stakeholders namely the national security apparatus, blue economy entities, environmental regulators including disaster management authorities and the science and technology providers is unique and can provide a sustainable way ahead for the developing economies in the region. The maritime strategy perspective has been discussed to address the relationship between the stakeholders and how to bring regulatory framework overcoming the development versus conservation debate, very germane in a developing region like the IOR. The Indian Maritime Strategy (work in progress) formulation does get substantial inputs through the UDA concept to comprehensively address issues unique to the IOR. India with its strategy location in the IOR could play a leadership role in addressing the critical marine eco-concern highlighted in the book. The author through the book aims to create awareness among the stakeholders, policy makers, marine experts, etc. and provide a broad way ahead towards a sustainable, secure and efficient maritime growth in the IOR.

The author admits his dilemma to define the readers. In his words, "The diverse spectrum of readers who could possibly

benefit from the work, made it extremely difficult to finalize the content. The stakeholders with their varied interest and requirement will require different level of details. To pitch it at a very detailed level will irritate some of them and the others may demand facts to be connected in a comprehensive manner. The policy maker versus the stakeholders was another aspect that I had to deal with. How much of science and technology was necessary and how much maritime strategy was enough? Do the readers want to know the problem or are they interested only in the way ahead? I know it will be impossible to satisfy every reader and something for everyone is never a good model. It has been my sincere attempt to reach out to every section of relevant groups of people to initiate a discussion on this important subject. It may be just food for thought and setting the agenda for a discourse on a sustainable maritime growth plan in the IOR.”

Going further, the author very strongly points to the absence of a comprehensive Indian Maritime Strategy. Again quoting from the book: “It is just the beginning and touches on some of the many aspects of Maritime Strategy formulation. The maritime domain does not recognize national boundaries, so regulatory frameworks need to recognize regional and global dynamics. The initiative required will touch upon understanding the dynamics, so the UDA concept will be the corner stone towards effective frameworks. The capability building for effective UDA will require enormous resources in terms of expertise and infrastructure. The acoustic capacity building will have its challenges specifically in the IOR and may not be possible to develop alone for technical, economic as well as political reasons. So diplomatic efforts will be as important and the broader consensus will have to be reached. India is emerging as a maritime nation and 21st century developments do indicate its coming of age towards becoming a global power. A cogent and visible Indian Maritime Strategy has waited more than seventy years post independence. The book may serve as a good input for an initiative towards the formulation of a comprehensive maritime strategy.”

The book is extremely well researched and presented in an easily readable and visually pleasing manner. A lot of pictures and innovative quotes are incorporated in the book to support the flow of thought and ensure engrossed reading. The messages from eminent people from diverse background do appreciate the rich and nuanced analysis of the complex and

lesser known subject of acoustic habitat degradation through the maritime strategy framework. The unique UDA concept proposed in the book does resonate with these experts. The messages from Cmde Rajan Vir (President IMF), Vice Admiral DSP Varma (Former Chief of Materiel, Indian Navy and Former Director General ATV Program), Mr. Mukesh Malhotra (MD Weikfield Industries and Former President MCCIA) and Dr. Erach Bharucha (Well known Environmentalist) all point towards the deep insight of the author on the subject and a first of its kind book, extremely relevant to the present aspirational India, that seems to recognise its maritime potential.

The book will be an interesting reading for the marine conservation specialist who have largely ignored the acoustic habitat degradation aspect in their conservation initiative and also addresses their never enough resource dilemmas through the UDA concept. The conservation versus growth debate also gets positive inputs for the marine conservation activists and the regulators. The enhanced awareness for the blue economy components can encourage their participation towards a sustainable growth initiative. The corporate are highly encouraged to initiate seminars with the theme of the book. The maritime strategy experts do get a comprehensive view of work on the Indian Maritime Strategy (Work in progress). The impending Maritime Domain Authority may get some relevant inputs in their formulation. Leadership aspirants in the maritime sector across stakeholders must refresh themselves with the ideas of the book. The debates on national security versus environment and the national security versus development may also get smoothened out based on the ideas included in the book. Recommended reading for the diplomatic community and the IOR rim leadership to work towards a sound regulatory structure in the future.

The continental outlook in India has been challenged and sea mindedness has been encouraged through a very novel aspect of the maritime domain. The country needs to recognise the challenges of the present maritime thrust and take appropriate political, economic and diplomatic measures. The general populations need to participate and make it politically compelling for the leadership to accord priority. The book does trigger passionate reactions to the status quo. A scientific and logical approach to enhancing maritime consciousness, through a delicate aspect of the marine ecosystem. Must read for all.

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