



Underwater Domain Awareness (UDA) Framework for Effective Security And Growth for All in the Region (SAGAR) One Day Seminar – 24 Aug 2018

*We seek a future for the Indian Ocean that lives up to the name of
“SAGAR-Security And Growth for All in the Region.”
Shri Narendra Modi. Mar 2015*

Background

The Indian Ocean Region (IOR) in the 21st century presents itself as the strategically most important sea area globally for multiple reasons. This also comes with its baggage of security concerns and environmental degradation. Thus, the challenge of holistic growth by way of ensuring *safe, secure, sustainable growth* requires a comprehensive strategy.

India in the 21st century has managed to get its act together, particularly on the maritime front and massive maritime capability and capacity building projects have taken shape with aggressive backing from the government and participation from the private sector. Policy changes in the last four years have also ensured effective and efficient implementation of these projects.

The geo-political situation in the IOR and few incidents of the past constantly remind us of the security threats that exist. These threats originate on internal and external fronts and the involvement of non-state actors, makes it a very challenging proposition to counter by conventional means. Thus, a comprehensive national security perspective needs to evolve that is able to counter these threats with technological superiority, innovative approach and also make policy framework to seamlessly integrate the stakeholders and address resource requirements.

The Maritime Domain Awareness (MDA) is a term that gained prominence in India, post the 26/11 incident and the national conscience got shaken enough to make massive infrastructure investment and policy initiatives to possibly handle the situation in future. However, the underwater component of MDA that may be referred as Underwater Domain Awareness (UDA) got completely ignored leaving a big gap in the entire security paradigm. The nation as a whole has ignored the UDA component in many aspects and thus the contribution of the undersea domain to GDP has been abysmally low. Although we are seeing a lot of push on the blue economic front, the security concerns do not seem to get addressed particularly in the dynamic environment of the IOR that has massive blue economic build-up with most volatile political situation and fragmented regional governance. The technology availability to the subversive elements in the IOR due to some nation states engaging in Low Intensity Conflict (LIC), makes it a dangerous situation to counter through conventional means being deployed presently.

Underwater Domain Awareness (UDA) is a framework that addresses the aspect of *Safe, Secure and Sustainable Growth* in the maritime region particularly for the Indian Ocean Region (IOR). UDA is very well aligned to the **SAGAR** vision of the honourable PM. It encompasses the ideas of smart digital India with high end technology integration to overcome the specific challenges of the IOR. The effective UDA framework being a new initiative will require efforts in all the dimensions namely - Policy Support, Infrastructure Creation, Know-how Build-up and Human Resource Development. *Pooling of Resources* and *Synergy of Efforts* are the only way forward and thus stakeholders namely National Security Apparatus, Blue Economic Entities, Environmental Regulators and Disaster Management Authorities along with the Science and Technology Providers have to come together to evolve a nuanced strategic vision. Details on UDA is attached at the end of the document.

Proposal

The Maritime Research Centre (MRC), Pune in collaboration with the Savitribai Phule Pune University, proposes to organize a one day seminar titled “UDA framework for SAGAR”, on 24 Aug 2018, for mid-level and senior-level officers and executives from the stakeholders and also students. It will be a multi-disciplinary, multi-organizational and multi-functional, interactive seminar to expose the participants to multiple aspects of the undersea domain and attempt to evolve a strategic framework. It will be driven by the UDA framework in the IOR. It will be relevant to stakeholders like:

- **National Security Apparatus** – Indian Navy, Indian Coast Guard, Marine Police, Ministry of Defence, NTRO, Intelligence Agencies and Think Tanks.
- **Blue Economic Entities** – Oil and Gas Sector, Undersea Mining, Ports and Shipyards, Shipping Industry, Fishing Industry, Associated Ministries and more.
- **Environmental Regulators and Disaster Management Authorities** – Government bodies and NGOs.
- **Science and Technology Providers**- DRDO, NIO, NIOT, NCAOR, INCOIS, DST, Academic Institutes, Associated Ministries and more.

The participant will interact with their counterparts among the stakeholders, policy makers and practitioners. The workshop will not only expose them to the critical opportunities and concerns in the UDA framework, but also facilitate exchange of ideas and synergising of efforts. The review of existing means and measures to address the challenges of UDA in the IOR will enable concrete exchanges to formulate way forward. The mid-level managers will not only get a big picture but will also shape themselves to be able to participate in the future strategic vision. The senior decision makers will shape policies and practices within their establishments to facilitate synergy of efforts and pooling of resources.

Conduct of the Programme

The broad strategic relevance of the seminar entails that the participants get exposed to the policy issues, technological means, innovative tools and measures, geo-politics, organizational aspects both nationally and globally, regional and global frameworks, and more. The multiple organizations and their mandates within the country and their compatibility with similar entities and user entities will be discussed. The GAP analysis in terms of policy and means and measures will be discussed.

A broad spectrum with very specific agenda of UDA framework for SAGAR will be addressed. The programme will start from 0930 hrs and end at 1730 hrs. The event will be conducted at the SPPU, Pune University Campus.

Detailed Programme

The entire seminar has been planned under four sessions:

Inaugural Session

- 0930 hrs- Registration & Tea
- 1000 hrs- Chief Guest Arrives
- 1005 hrs- Welcome Address by Prof Nitin Karmalkar, Vice Chancellor SPPU.
- 1015 hrs- Introductory Remarks by Dr(Cdr) Arnab Das, Director MRC.
- 1040 hrs- Felicitation of the Chief Guest by Shri Praful Talera, MRC Adviser (Blue Economy).

- 1050 hrs- Presentation of Shawl by Cmde Rajan Vir (Retd), President IMF.
1100 hrs- Chief Guest Address – Dr. Subhash Bhamre,
Honourable Minister of State (Defence Production).
1110 hrs- Intervention by Dignitaries
1130 hrs- High Tea
1155 hrs- Chief Guest Departs
1200 hrs- Key Note Address I – SAGAR Vision and Sustainable Blue Economy,
Shri Pradeep Rawat, Chairman National Shipping Board.
1230 hrs- Key Note Address II – National Security Perspective –
Lt Gen Vinod Khandare (Retd), Former Director General Defence Intelligence
1300 hrs- Lunch

Special Session-I National Security & Strategic Vision (1400 - 1530 hrs)

Chaired by Vice Admiral S C Bangara (Retd), Former C-in-C South Indian Navy

- 1400 hrs- Experts Speak (15 min each)

Speakers

Rear Admiral B R Taneja (Retd).

Rear Admiral Anthony George, ACNS(SR), Indian Navy.

Inspector General K R Suresh, Indian Coast Guard.

Capt. Brejesh Kalra (Retd), Vice President L&T Defence.

- 1500 hrs- Q & A
1515 hrs- Summing up by the Chair
1530 hrs- Tea Break.

Special Session-II Blue Economic Perspective (1600 - 1730 hrs)

Chaired by Dr. Sathesh C Sheno, Director INCOIS

- 1600 hrs- Experts Speak (15 min each)

Speakers

Prof Suhas Pednekar, VC Mumbai University (To be confirmed).

Mr. Rakesh K Mehra, Director Petrofos.

Dr. Chaitanya Giri, Fellow, Space & Ocean Studies, Gateway House Mumbai.

Dr. Naveen Namboothri, Director Dakshin Foundation Bangalore.

- 1700 hrs- Q & A
1715 hrs- Summing up by the Chair
1730 hrs- Small Break

Valedictory Session

- 1740 hrs- Remarks by the Dignitaries.
1815 hrs- Declaration of the Seminar Resolution – Dr. Somak Raychaudhury
1830 hrs- Close

Convener

Dr.(Cdr) Arnab Das, Director MRC, Pune.

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Underwater Domain Awareness

The concept of Underwater Domain Awareness (UDA) in a more specific sense will translate to our eagerness to know what is happening in the undersea realm of our maritime areas. This keenness for undersea awareness from the security perspective, means defending our Sea Lines of Communication (SLOC), coastal waters and varied maritime assets against the proliferation of submarines and mine capabilities intended to limit the access to the seas and littoral waters. However, just the military requirement may not be the only motivation to generate undersea domain awareness. The earth's undersea geophysical activities have a lot of relevance to the well being of the human kind and monitoring of such activities could provide vital clues to minimize the impact of devastating natural calamities. The commercial activities in the undersea realm need precise inputs on the availability of resources to be able to effectively and efficiently explore and exploit them for economic gains. The regulators on the other hand need to know the pattern of exploitation to manage a sustainable plan. With so much of activities, commercial and military, there is significant impact on the environment. Any conservation initiative needs to precisely estimate the habitat degradation and species vulnerability caused by these activities and assess the ecosystem status. The scientific and the research community need to engage and continuously update our knowledge and access of the multiple aspects of the undersea domain. Fig. 1, presents a comprehensive perspective of the UDA. The underlying requirement for all the stakeholders is to know the developments in the undersea domain, make sense out of these developments and then respond effectively and efficiently to them before they take shape of an event.

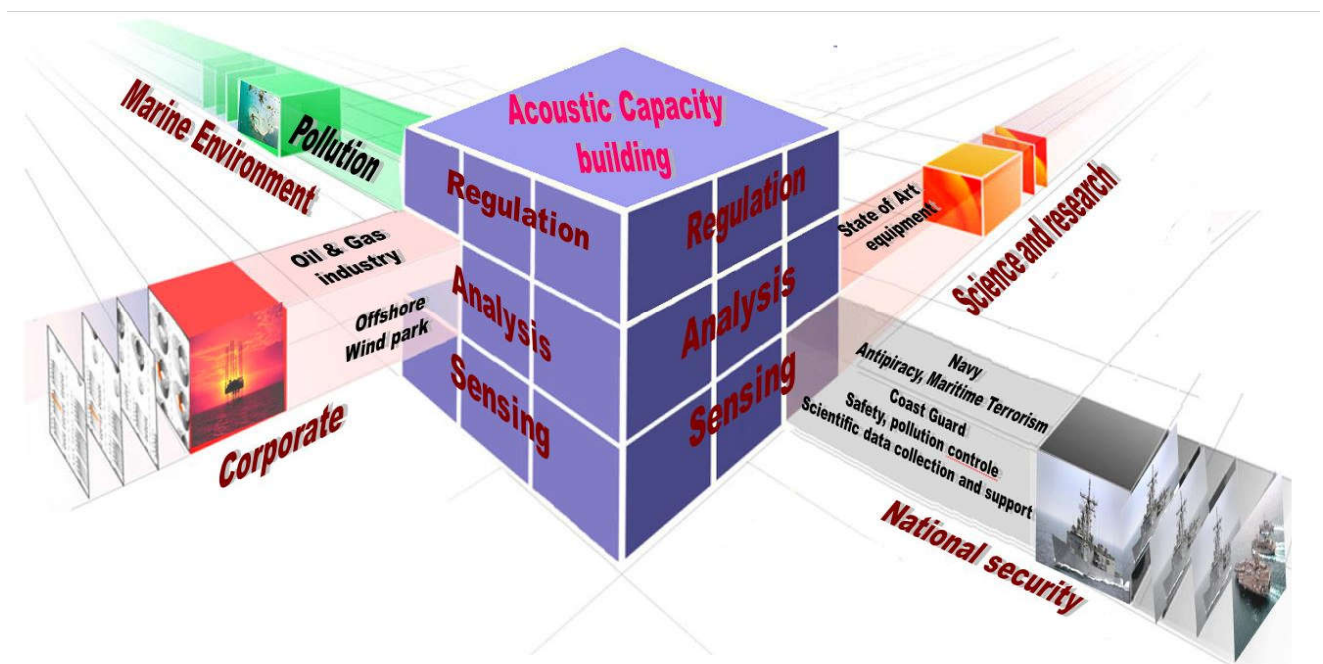


Fig. 1 Comprehensive Perspective of Undersea Domain Awareness

The UDA on a comprehensive scale needs to be understood in its horizontal and vertical construct. The horizontal part would be the resource availability in terms of technology, infrastructure, capability and capacity specific to the stakeholders or otherwise. The vertical part is the hierarchy of establishing a comprehensive UDA. The first level or the ground level would be the sensing of the undersea domain for threats, resources and activities. The second level would be making sense of the data generated to

plan security strategies, conservation plans and resource utilization plans. The next level would be to formulate and monitor regulatory framework at the national, regional and global level.