



*Indo-Sri Lankan Relations  
and the BIMSTEC:  
A New Perspective based on the  
Underwater Domain Awareness (UDA)  
Framework*

WEBINAR

REPORT

25 March 2022 | 1600hrs





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MRC-NDT/UDA

Mar 2022

## **Covering Note**

Dr (Cdr) Arnab Das  
Founder & Director  
Maritime Research Centre,  
Pune



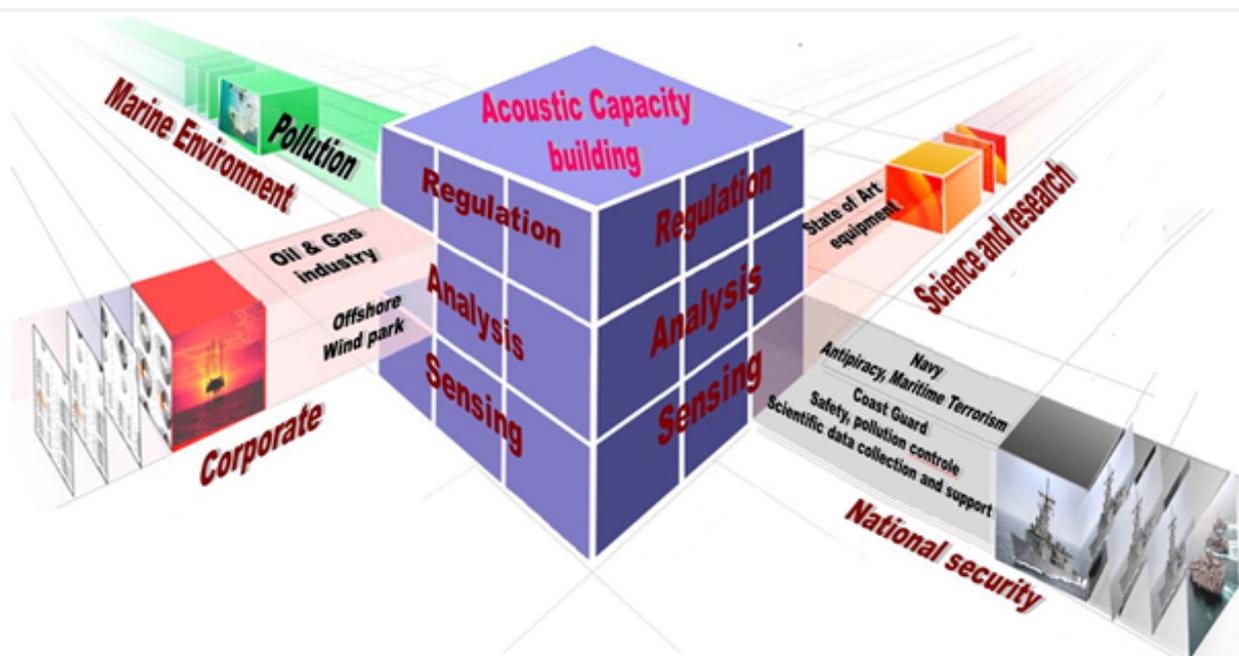
**Report on Outcomes of the High Level Dialogue:  
Indo-Sri Lankan Relations and the BIMSTEC:  
A New Perspective based on the  
Underwater Domain Awareness (UDA) Framework**



**Enclosure-1**

**Underwater Domain Awareness (UDA) Framework**

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 wellbeing 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 construct would be the resource availability in terms of technology, infrastructure, capability and capacity specific to the stakeholders or otherwise. The stakeholders represented by the four faces of the cube will have their specific requirements, however the core will remain the acoustic capacity and capability. The vertical construct 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 local, national and global level.

The figure above gives a comprehensive way forward for the stakeholders to engage and interact. The individual cubes represent specific aspects that need to be addressed. The User-Academia-Industry partnership can be seamlessly formulated based on the user requirement, academic inputs and the industry interface represented by the specific cube. It will enable more focused approach and well defined interactive framework. Given the appropriate impetus, the UDA framework can address multiple challenges being faced by the nation today. Meaningful engagement of Young India for Nation Building, probably is the most critical aspect that deserves attention. Multi-disciplinary and multi-functional entities can interact and contribute to seamlessly synergize their efforts towards a larger goal.

The UDA Framework as proposed above has been formulated jointly by the Maritime Research Centre (MRC), Pune and M/S NirDhwani Technology Pvt Ltd (NDT). The focus is on all the three aspects namely Policy, Technology & Innovation and Human Resource Development. More details are available in the MRC website <https://mrc.foundationforuda.in/>

## Centre of Excellence on Underwater Domain Awareness (UDA) Framework

This proposal includes the establishment of a “**Centre of Excellence**” comprising 5 sub-centres (or verticals), under the MRC, which would be characterised by a strong coherence but with independent activities. This Centre will advance the capacity and capability building objectives outlined at para (I) above. All the five centres will draw inputs from each other but have their unique and well defines Key Result Areas (KRAs) and Key Performance Areas (KPAs). The five sub-centres under the Centre of Excellence are listed below:

(a) The first will be **strategy centre** that will keep track of the R&D and industry requirements to build effective policy frameworks. There will be data driven policy formulation to address the stakeholder requirements. The KRA for the strategy centre will be to identify gaps in the domestic and regional policies and formulate effective way forward to build regional cooperation and effective maritime governance. The KPAs will reflect in seamless diplomatic interactions in the IOR and the wider Indo-Pacific region. India’s leadership in the regional forums like IORA, BIMSTEC, G-20, G-07 and the Indo-Pacific Oceans Initiative will be key indicator of our success.

(b) The second will be a multi-disciplinary **research centre** that will provide cutting edge inputs with site specific field experimental R&D to address the core acoustic capacity and capability building requirements. The IOR with its unique tropical littoral waters needs sustained indigenous R&D efforts to overcome the challenges and capitalize on the opportunities. These efforts should be able to provide nuanced inputs for the strategy centre for effective policy formulation with data driven real time ground understanding. This should minimise the dependence on the technology imports and also enhance our strategic capabilities. Home grown science & technology dominance will minimize strategic risks for security and other critical projects. The activities of this sub-centre would be of relevance to our maritime outlook in its widest scope.

(c) The third will be an **incubation centre** that will map the research outcomes of the research centre to application specific requirements of the stakeholders. Start-ups and industries can draw ideas from here and build business plans. India’s self-reliance on critical strategic issues will be critically depend on this initiative. The start-ups are always known for their agility to build high-tech solutions and the UDA framework has unimaginable possibilities. The effective eco-system provided by this incubation centre will nurture the talent pool we have in the country and provide innovative directions to channelize their efforts towards nation building.

(d) The fourth will be a **training centre** that will ensure the professionals and practitioners from the stakeholders, including partner countries to understand the nuances of the UDA framework and apply them effectively in their operations and strategic planning. This will not only make our practitioners more scientific and effective in their routine operations but also promote building the national infrastructure and bring seamless collaboration across the stakeholders. This facility will add to our diplomatic leverage in the pursuit of our larger maritime objectives.

(e) The fifth will be the **academic centre** that will build academic programs along with project based learning to prepare the next generation of students and professions to attain higher professional qualifications to appropriately take forward the UDA framework. The professional enhancement will be a very critical aspect to bring regional cooperation. The young generation and the experienced professionals sitting together and working on regional issues need no elaboration for its impact on regional cooperation. These centres will be the hotbed of innovations and ideas for effective progress and seamless interactions at all levels of decision making.



## **Substantive Comments by the Esteemed Speakers**



**Enclosure-3**

**Concept Note**

The global power play has decisively shifted to the tropical littoral waters of the Indian Ocean Region (IOR) and the South China Sea (SCS). The ongoing global order is seeing a massive churn in international relations. The rapid rise of China and the relative decline in the American hegemony has given rise to enhanced contestation and confrontation, largely on economic and political matters that have led to brinkmanship on the military front as well. The pandemic has brought a new set of alignment among nations and also among adversaries. The importance of regional alliances and frameworks cannot be undermined in the new global era. The Indian Ocean Region (IOR), particularly has unique challenges and opportunities on multiple fronts namely, political, economic, culturally, militarily and more. It is important to understand these issues before we even attempt to formulate our strategic vision.

The Security And Growth for All in the Region (SAGAR) declaration by the Honourable prime Minister recognizes the security concerns and the blue economic opportunities that exist in the IOR. It also pronounces the leadership role India wants to play in the region. India on its part has taken up multiple initiatives to build on the SAGAR vision both internally and externally. Mega projects have been announced to support the capacity & capability building internally, like the Sagarmala, Bharatmale and more. Externally the Indian Ocean Rim Association (IORA), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and more are some such initiatives. The BIMSTEC member states – Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand – are among the countries dependent on the Bay of Bengal. The BIMSTEC is an extremely critical group, where socio-culturally and socio-politically we have significant synergies and building on the regional strategic and economic framework will make lot of sense. The Indo-Sri Lankan relations can be a major catalyst in taking forward the BIMSTEC activities to the next level. The geography and the socio-cultural connect can be leveraged for evolving a regional framework.

The Maritime Domain Awareness (MDA), received significant traction globally post the 9/11 incident, and in the IOR, the 26/11 was a similar trigger to build MDA infrastructure. However, it is important to note that the MDA so devised, remained a security driven formulation with minimal penetration into the other stakeholders, resulting in constrained budgetary allocations only from the defence spending. The most critical fall-out of this security driven formulation was that the underwater component of the MDA that may be referred as Underwater Domain Awareness (UDA) remained far neglected and could not be main streamed into the Science & Technology (S&T) developments. The UDA framework proposed by the Maritime Research Centre (MRC), encourages pooling of resources and synergizing of efforts across the stakeholders and can be a strategic formulation to build on the SAGAR vision. The safe, secure, sustainable growth model supported by the UDA framework can be the mainstay for the BIMSTEC interactions. The unique geopolitical and geostrategic challenges and opportunities in the Bay of Bengal region can effectively be managed by the proposed UDA framework. The UDA framework builds on the policy & technology interventions along with the acoustic capacity & capability building required for peace & prosperity in the region.

## **Proposal**

The Maritime Research Centre (MRC), Pune and M/S NirDhwani Technology Pvt Ltd (NDT) in collaboration with the Pathfinder Foundation Sri Lanka and the Institute of Contemporary Studies Bangalore (ICSB), proposes to host a webinar titled “Indo-Sri Lankan Relations and the BIMSTEC: A New Perspective based on the Underwater Domain Awareness (UDA) Framework” on 25 Mar 2022 at 1600 hrs. The event is planned to bring together the industry, maritime strategists, policy makers and others, to be able to reach out and build policy priority for the UDA framework at the regional level. The interactions will strengthen the Indo-Sri Lankan partnership and encourage joint acoustic capacity and capability building at the regional level.

The broad strategic relevance of the high level dialogue 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. A detailed dialogue resolution will be prepared and submitted to the authorities and agencies within and outside the government for further action.

## **Program**

The detailed program for the event will be as follows:

- 1600 hrs - Opening Remarks on the larger Strategic Outlook by Shri Pratap M Heblkar, Managing Trustee Institute of Contemporary Studies Bangalore (ICSB).
- 1610 hrs - UDA Framework in the New Global Order.  
Dr(Cdr) Arnab Das, Founder & Director MRC, Pune.
- 1625 hrs - Key Note Speech by Amb Bernard Goonetilleke, Chairman Pathfinder Foundation, Sri Lanka.
- 1635 hrs - The Strategic Security Perspective by Vice Admiral M P Murlidharan (Retd), AVSM & Bar, NM, Former DG Indian Coast Guard.
- 1650 hrs - Industry Perspective in the New Global Order.  
Shri Sanjay Vishwanathan, Chairman Adi-Group.
- 1705 hrs - Blue Economy: Challenges & Opportunities by Prof. H P Rajan, Deputy Director (Retired), Division for Ocean Affairs and Law of the Sea, United Nations.
- 1720 hrs - Special Intervention  
Indo-Sri Lankan Maritime Cooperation for Regional Growth & Prosperity -  
Admiral Ravindra C Wijegunaratne (Retd), WV, RWP &  
Bar, RSP, VSV, USP, NI(M), Former Commander of Sri Lanka Navy and Former  
Chief of Defence Staff of the Sri Lanka Armed Forces.  
Geostrategic Perspective - Amb Gurjit Singh, Former Diplomat.  
Regional Maritime Perspective - Dr. Vijay Sakuja, Author & Maritime Strategist.
- 1800 hrs - Vote of Thanks by Shri Praful Talera, MRC Adviser Blue Economy.

## **Convenor**

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

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# Indo-Sri Lankan Relations and the BIMSTEC: A New Perspective based on the Underwater Domain Awareness (UDA) Framework

## ESTEEMED GUESTS



**SHRI PRATAP M HEBLIKAR**  
Managing Trustee Institute of Contemporary Studies Bangalore (ICSB)



**VICE ADMIRAL M P MURLIDHARAN (RETD)**  
AVSM & Bar, NM, Former DC Indian Coast Guard.



**AMB BERNARD COONETILLEKE**  
Chairman, Pathfinder Foundation, Sri Lanka.



**PROF. H P RAJAN**  
Deputy Director (Retired), Division for Ocean Affairs and Law of the Sea, United Nations.



**SHRI SANJAY VISWANATHAN**  
Chairman AdiGroup & Adi Defence

## SPECIAL INVITEES



**AMB GURJIT SINGH**  
Former Diplomat



**ADM RAVINDRA C WIJEGUNARATNE (RETD)**  
WV, RWP & Bar, RSP, VSV, USP, NI(M), Former Commander of Sri Lanka Navy and Former Chief of Defence Staff of the Sri Lanka Armed Forces.



**DR. VIJAY SAKUJA**  
Maritime Strategist



**DR (CDR) ARNAB DAS**  
Founder & Director MRC, Pune



**SHRI PRAFUL TALERA**  
MRC Adviser (Blue Economy)

## HOSTS

**BIMSTEC**



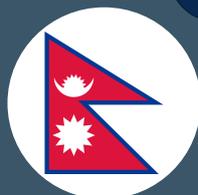
**India**



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