

Concept Note for Five Day Workshop
Underwater Domain Awareness (UDA) framework for
Strategic Security Architecture and AtmaNirbharta
15 Apr 2024 at Pune

The 21st century India is looking very different in terms of its geopolitical and geostrategic moorings and the global community is seeking our participation in the strategic power play. The Indo-Pacific strategic construct brings a new paradigm for strategic security interaction in the tropical littoral waters of the Indian and the Pacific Ocean. The Indian Ocean Region (IOR) has become the center of gravity for political, economic, military and socio-cultural interactions. India with its geo-strategic location and geopolitical position in the IOR has no option but to play a major role.

The Government of India has taken multiple steps to ensure our leadership position in the global strategic interactions. The Security And Growth for All in the Region (SAGAR) vision of the Honourable Prime Minister is a major announcement to establish India's role in the IOR and beyond. It recognizes the security concerns that exist in the region, but also acknowledges the blue economic opportunities that are available to us. The Government of India has initiated mega projects to complement the SAGAR declaration, namely the Sagarmala, Bharatmala, Inland Water Transport, Gati Shakti and many more. The trans-boundary Rivers in the North (Indus) and the North East (Brahmaputra) present unique and complex challenges and need to be dealt with urgently. It may be noted that the Underwater Domain becomes a critical theatre going forward, given the strategic security perspective.

The tropical waters in the IOR, present very unique challenges and opportunities on multiple counts. The political volatility brings significant security concerns, the geographic location and the tropical waters present massive economic opportunities and the sub-optimal sonar performance makes it challenging to deploy the imported technology with reasonable level of performance. The extra-regional powers have been meddling in the domestic politics of multiple nations in the IOR allowing large scale participation of the non-state actors into subversive activities with covert support of the nation states. The security establishment has to be prepared for the asymmetry and the disruptive means available to the non-state actors. The invisible enemy can only be dealt with technology edge and nuanced approach.

The Maritime Research Centre (MRC), Pune has proposed the Underwater Domain Awareness (UDA) framework that is well aligned with the SAGAR vision of the Honourable Prime Minister. The UDA framework encourages pooling of resources & synergizing of efforts across the stakeholders and could be a diplomatic leverage to keep the extra-regional powers at bay. The policy & technology intervention along with acoustic capacity & capability building driven by the UDA framework can address multiple challenges and opportunities of the tropical littoral waters. The science & technology driven UDA framework will ensure true realization of AtmaNirbhar Bharat.

Proposal

The MRC and M/S NirDhwani Technology Pvt Ltd (NDT) in collaboration with the Indo-Swiss Center of Excellence (ISCE), Pune, is hosting a high-level dialogue titled “*Underwater Domain Awareness (UDA) Framework for Strategic Security Architecture and AtmaNirbharta*”. The event will bring senior decision makers in the strategic security establishment and the supporting organizations, to discuss the challenges and formulate way forward. The following issues will be discussed:

- (a) Emerging underwater threat both in the marine and freshwater systems. Policy & technology interventions required to manage the challenges.
- (b) Capacity & capability building requirement for managing the underwater threats across the multiple dimensions.
- (c) User-Academia-Industry partnership to ensure effective capacity & capability building framework.
- (d) AtmaNirbharta and the Start-up Ecosystem. How to manage innovation in a new domain.
- (e) Indigenous Research & Development (R&D) with appropriate balance between traditional knowledge and modern Science & Technology (S&T) tools.
- (f) UDA framework and the SAGAR Vision – New Way forward.

A detailed report will be generated with actionable inputs and timeline for implementation with clear identification of roles & responsibilities.

Strategic Advisory Board

Lt Gen D B Shekatkar (Retd)	-	Chairman Shekatkar Committee
Amb Anup Mudgal	-	Former Diplomat
Shri Amitabh Kumar, IRS	-	Former DG Shipping
Dr. Ajay Kumar, IAS	-	Former Defence Secretary
Vice Admiral DSP Varma (Retd)	-	Former DG Strategic Submarine Project
Vice Admiral A R Karve (Retd)	-	Former C-in-C Southern Naval Command
Shri Mukesh Malhotra	-	Chairman ISCE
Shri Praful Talera	-	MRC Adviser on Blue Economy

Program

The detailed program is as follows:

Day – 1 (15 April)

<i>0930 hrs</i>	-	<i>Inaugural Event</i>
<i>1130 hrs</i>	-	<i>High Tea and Chief Guest Departs</i>
<i>1200 hrs</i>	-	<i>Plenary Session – 1</i> <i>UDA Framework by Dr(Cdr) Arnab Das</i>
<i>1300 hrs</i>	-	<i>Networking Lunch</i>
<i>1400 hrs</i>	-	<i>Plenary Session - 2</i> <i>Data Analytics and AI</i> <i>Mr. Shridhar Prabhuraman, Dy Director MRC</i>
<i>1530 hrs</i>	-	<i>Tea Break</i>
<i>1600 hrs</i>	-	<i>Presentation by MRC Fellows</i>

- Ms. Nishtha Vishwakarma on UDA Platforms**
Mr. Ayush Sawadh: Navigate the UDA Platforms
- 1730 hrs - **Close of Day - 1**
- Day – 2 (16 April)**
- 0930 hrs - **Plenary Session – 3**
Strategic Security Scenario - A Maritime Perspective
Cmdr R S Vasan (Retd), Director General Chennai
Centre for China Studies and Regional Director
National Maritime Foundation, Tamil Nadu
- 1100 hrs - **High Tea**
- 1130 hrs - **Plenary Session – 4**
Geopolitics & the SAGAR Vision
Amb Anup Mudgal, Former High Commissioner to
Mauritius, Member FICCI's Blue Economy Task Force.
- 1300 hrs - **Networking Lunch**
- 1430 hrs - **Plenary Session -5**
Indo-Pacific and the India- Australia Strategic Maritime
Partnership, Mr. Kim-Heriot Darragh, Research &
Program Fellow, Perth USAsia Center, Indo-Pacific
Strategy
- 1530 hrs - **Tea Break**
- 1600 hrs - **Project Presentations by MRC Fellows**
Sediment Management by Mr. Romit Kaware
Digital Transformation by Mr. Shlok Nemani
- 1730 hrs - **Close of Day – 2**
- Day – 3 (17 April)**
- 0930 hrs - **Plenary Session – 6**
Traditional Knowledge & Strategic Security
Prof Radhika Seshan, Maritime Historian
- 1100 hrs - **High Tea**
- 1130 hrs - **Plenary Session – 7**
Strategic Security & Innovation
Dr. Ajay Kumar, Former Defence Secretary
Government of India
- 1300 hrs - **Networking Lunch**
- 1400 hrs - **Plenary Session – 8**
Prof Jeffrey Payne, The North East South Asia Center
for Strategic Studies National Defence University,
USA.
- 1530 hrs - **Tea Break**
- 1600 hrs - **Project Presentations by MRC Fellows**
Blue Economy by Ms. Cathrine J

- 1730 hrs - **Climate Change by Ms. Divya Rai**
Close of Day - 3
- Day – 4 (18 April)**
- 0930 hrs - **Plenary Session – 9**
Ancient Indian and Shakespearean Sounds: Exploring Human Experience of the Depths
Ms. Lakshmi Krishnakumar, Journalist & Shakespeare Scholar
- 1100 hrs - **High Tea**
- 1130 hrs - **Plenary Session - 10**
Indigenization & Challenges
Chaired by Vice Admiral DSP Varma (Retd)
Former DG ATVP
Speaker - Dr(Cdr) Arnab Das
- 1300 hrs - **Networking Lunch**
- 1400 hrs - **Plenary Session – 11**
Master Keys in Geopolitics
Shri Praful Talera, MRC Advisor on Blue Economy
- 1530 hrs - **Tea Break**
- 1600 hrs - **Project Presentations by MRC Fellows**
Dredging & Sediment Bearing Pressure - Mr. Romit K
MSP Tool by Mr. Jay Pinjarkar
- 1730 hrs - **Close of Day - 4**
- Day – 5 (19 April)**
- 0930 hrs - **Plenary Session - 12**
Water Security & Internal Security Challenges
Prof Ajay Dandekar, Shiv Nadar University
- 1100 hrs - **High Tea**
- 1130 hrs - **Plenary Session – 13**
Underwater Research and Ocean Governance
Prof Tomonari Akamatsu
Research Organization for Nano & Life Innovation,
Waseda University, Japan
- 1300 hrs - **Networking Lunch**
- 1400 hrs - **Brain Storming on the Way Forward**
- 1530 hrs - **Tea Break**
- 1600 hrs - **Valedictory Session**
- 1730 hrs - **Close of Workshop**

Convenor

Dr.(Cdr) Arnab Das, Founder & Director MRC, will be the convenor of the event.
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