

## Minutes of Meeting

### MRC Research Advisory Board (RAB)/03 – 23

### 22 August, 2023 (1030 hrs IST)

The Maritime Research Center (MRC), Pune conducted the Research Advisory Board (RAB) meet for members and dignitaries on 22 Aug 2023. The meeting was conducted virtually on the WebEx platform to discuss the research progress and technology development at MRC and also deliberated on the future research pathways.

#### **RAB Attendance:**

1. **Dr. Satheesh Sheno**i, Former Director INCOIS Hyderabad
2. **Prof. Radhika Seshan**, Former HOD Department of History SPPU
3. **Dr. (Cmde) Somen Banerjee**, Former Senior Research Fellow at Vivekanand International Foundation
4. **Prof. Varsha Kelkar Mane**, HOD Bio-Technology Department University of Mumbai
5. **Dr. R Vijay Kumar**, Department of Ocean Engineering, IIT Chennai
6. **Dr. (Cdr) Arnab Das**, Founder & Director of Maritime Research Center, Pune

In addition to the RAB members, multiple other advisors of MRC and domain experts attended the workshop from across the world and gave their guidance to progress the UDA framework. The report on the meeting and its proceedings are available at the MRC website. The video recording of the meeting has also been shared on the website.

The meeting began with an opening address by [Amb Anup Mudgal](#) (Former Indian Ambassador to Mauritius and currently Co-chairing FICCI's Blue Economy Task Force). Then [Dr \(Cdr\) Arnab Das](#) (Founder-Director at MRC and NDT) provided an overview of MRC's vision and mission and also gave updates on MRC's recent programmes. Dr. Das also provided a brief overview of MRC's 'Multilateral and Bilateral Collaborations'. Then, [Mr. Shridhar Prabhuraman](#), Deputy Director at MRC, made a comprehensive presentation on the 'Research and Innovations at MRC and NDT'. This was followed by a presentation on the 'Research & Publication' by [Mrs. J Cathrine Vishwakarma](#), MRC's Communications and Advocacy Lead, on the 'UDA Digest - Digital Platform that Showcases the Body of Work'. The dignitaries were then invited to give their comments and feedback on MRC's current work. Finally, each RAB member was invited to give the closing remarks. The meeting ended with a vote of thanks by [Shri Praful Talera](#), MRC Adviser on Blue Economy.

#### **Meeting Highlights and Actions Proposed:**

The **agenda** for the RAB meeting was to provide a detailed presentation of MRC's research and publication work to the RAB members for assessment. In addition, the progress on the technology

digital transformation tools were also showcased. The meeting also made a broad evaluation of the gaps in policy, technology and acoustic capacity & capability at global, regional, national and local levels. The remarks by the hosts and the RAB members after the detailed presentation are given below.

[Amb Anup Mudgal](#) reflected on the longstanding challenge of aligning research and policy tracks. Drawing from his past experience as a diplomat, he identified a fundamental issue wherein policies seek immediate solutions to problems, while research often focuses on creating an enabling environment rather than specific solutions. He emphasized the importance of understanding practical challenges society faces and finding simple solutions. He believes that connecting research to societal solutions can bridge the gap between these tracks. He characterized MRC as a solution-oriented institution and encouraged focusing on solving real-world problems within its domain. He cited the centrality of the human factor in all endeavors and discussed the growing feeling of insecurity due to various factors, including conventional and climate-related reasons. He stressed the role of science in providing an understanding of risk and diminishing fear through scientific comprehension of problems. The speaker underscored the need for research to provide sustainable solutions, ultimately attracting policy attention.

[Dr. \(Cdr\) Arnab Das](#) expressed his gratitude and introduced the Research Advisory Board (RAB) of the Maritime Research Centre (MRC). He emphasized the need for a formal structure to enhance the initiative's impact. He highlighted the recognized importance of the underwater domain, while acknowledging the existing expertise gap. He appreciated the team's efforts and the involvement of numerous students, underlining the unique challenges of tropical waters. He introduced plans for the advisory board related to strategic, industry, and sustainability aspects. The critical role of India in the 21st century was acknowledged, especially regarding the blue economy policy. Ongoing projects, such as data analytics and field deployment, were discussed, along with plans to involve coastal communities and develop experts in data science and domain knowledge. He also discussed the concept of a center of excellence that integrates research, innovation, skilling, academic curriculum, and policy. He touched upon collaborations with international institutions, innovations, and the engagement of the diplomatic community. In summary, he underscored the need for formalization, collaboration, and expertise in addressing challenges and opportunities in the underwater domain. The emphasis is on holistic approaches, integration of disciplines, and active engagement with both the younger generation and established stakeholders.

[Dr. Satheesh Shenoi](#) who has been associated with MRC for several years acknowledged the remarkable expansion of MRC's activities in various domains beyond ocean acoustics. He commended the presentation by Shridhar on MRC's diverse projects and activities. He provided several suggestions: firstly, he advised MRC to focus and specialize in specific areas to distinguish itself from other institutions. He requested for a detailed presentation starting with project objectives and concluding with achievements and future plan for the next Research Advisory Board (RAB) meeting. Secondly, he suggested distinguishing MRC's work from other institutions, particularly in areas like shrimp culture and deep-sea mining, by highlighting unique aspects or approaches. He suggested potential collaborations with institutions like CMFRI and NIOT as the next step. He also recommended focusing on climate change risk and regional implications, impacting local populations and aiding policy decisions. Thirdly, he proposed concentrating on marine spatial planning and acoustic ship detection, emphasizing MRC's unique contributions in these domains. He suggested investigating the economic impact of climate

change on aquaculture and bridging the gap between researchers and policymakers to make scientific findings more actionable. He concluded by encouraging MRC's vast stakeholder network to facilitate the science and policy gap for more effective outcomes.

[Prof. Radhika Seshan](#) appreciated the ongoing efforts and wished success for the continuation of the work. Emphasizing her perspective, she stressed the importance of not only addressing the present circumstances but also delving into history, particularly in the context of riverine and coastal communities. She emphasized the significance of understanding both continuity and change—how transformation is integrated within established patterns. While admitting her unfamiliarity with engineering aspects, she underscored the necessity of historical insights into submerged areas and changes brought about by factors like global warming, mentioning the effects of plankton and algae expansion on underwater and community life. She also highlighted that discussions of security strategy should not overshadow the fundamental aspect of human interaction with the oceans throughout history. She stressed that a community-centric approach is essential, requiring engagement with and understanding of communities. This engagement extends not only to riverine but also coastal communities, such as fisherfolk and their traditional technological practices. She mentioned the importance of understanding upstream and downstream linkages, and how one must use these insights to contribute to holistic research and development.

[Dr. \(Cmde\) Somen Banerjee](#) acknowledged the outstanding work of researchers showcased in the presentations. Drawing from his experiences in the Indian Navy and International Relations, he underscored the vast potential within the underwater domain. He highlighted two key focal points: firstly, the concept of "sustainable peace," which amalgamates sustainable development goals with the imperative of human security, particularly relevant amid global conflicts where individuals are increasingly at the forefront. The speaker highlighted the governance and normative gaps in conflict resolution and lauds institutions like MRC for establishing norms that evolved into international regulations and policy. Secondly, he introduced the national security perspective, leveraging a template from UNESCO, encompassing the comprehension of vulnerabilities, quantification of security shifts, risk assessment, advisory roles, environmental monitoring, governance gap bridging, tool management, and the encouragement of studies and innovations. In conclusion, he underscored the significance of converting these discussions into concrete research outcomes at MRC, presenting his recommendations, and expressing gratitude for the opportunity.

**Dr. Vijay Kumar** commended MRC's efforts in building under water domain awareness and executing joint projects with various colleges and universities.

On behalf of MRC, [Shri Praful Talera](#) expressed gratitude to various fellows and interns involved in a research project related to water and underwater domains. He thanked Ambassador Mudgal for emphasizing the need for practical solutions. He appreciated the support from various individuals, Sridhar, Catherine, Nishtha, and the team. The speaker reflected on the growth of the project, from a small team to a group of 30 people, under the leadership of Dr. Arnab Das. He emphasized the importance of understanding water, a global commons, and highlighted that sound, particularly sonar, is crucial for this understanding.

The RAB members and other advisors were unanimous in their instructions that there is a massive awareness and skill gap and disconnect among the policymakers, stakeholders and

practitioners about the UDA framework and its relevance to the governance mechanism. They were convinced that the UDA framework has to be fast tracked to achieve the objectives of the geopolitical and geostrategic priorities like the SAGAR vision of the Honorable Prime Minister. India's economic growth and prosperity along with the strategic security concerns can only be realized with effective implementation of the UDA framework across all the stakeholders, namely national security, blue economy, environment, disaster & climate change risk management and science & technology. They applauded the comprehensive and inclusive approach by [MRC driven UDA framework](#).

In conclusion, the RAB reviewed the existing activities at MRC and NDT and expressed their satisfaction at the progress made. The RAB was also briefed on the MRC activities in the last quarter. MRC informed them that the formalized and structured recording of the activities is done through the quarterly UDA Newsletters and the [June, 2023 newsletter is linked](#) here.

MRC has been undertaking regular publications to document its research and innovation activities. MRC has a rigorous documentation mechanism through their online platforms: [Knowledge Center](#) and UDA Digest. The [Research Notes](#) are published by interns and fellows on a regular basis. Also, the [UDA Digest](#) contains regular publications to generate awareness about the UDA framework among various stakeholders. These two platforms have become reasonably strong with their extensive and broad spectrum of content to support the UDA framework. The next meeting will be held in the next quarter and the actions decided upon in this meeting will be implemented after further discussion by the MRC team. In the next meeting, an update on the progress with respect to these actions will be shared.

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