

Unveiling the Impact: The Real Cost of Sea Sand Mining

Study Report Presentation & Discussion

Date: 10th March 2025 (Monday)

Time: 3:00 PM – 5:00 PM

Venue: ISDG Hall, Golf Links Road, Kowdiar, Thiruvananthapuram

Organized by: Institute for Sustainable Development and Governance (ISDG) & Kerala
Institute of Environment and Development (KIED)

1. Welcome Address

Speaker: Anilkumar P.Y, Program Coordinator, ISDG

Anilkumar P.Y welcomed all attendees and acknowledged the significance of the study report. He commended Dr. A Bijukumar for his dedication to environmental research and his commitment to social causes. He highlighted the urgency of addressing sea sand mining and its impacts on the ecosystem and livelihoods.

2. Moderator's Opening Remarks

Moderator: Dr. J B Rajan, Executive Director, KIED

Dr. Rajan initiated the discussion by stressing the connection between **UN Sustainable Development Goals (SDGs) 13 (Climate Action) & 14 (Life Below Water)** and the topic at hand. He emphasized the importance of sustainable approaches to marine resource management and the need for data-driven policy decisions.

3. Presentation of the Study Report

Presenter: Dr. A Bijukumar, Senior Professor & Head, Department of Aquatic Biology and Fisheries, Kerala University

Dr. Bijukumar's presentation covered the following key areas:

- **Formation of Sea Sand & Ecosystem Services**
- **Blue Economy Concept (World Bank Perspective) & Sustainable Marine Resource Management**
- **Quilon Bank (Kollam Parappu) and Its Unique Marine Biodiversity**
- **Concerns Over Shallow-Water Mining vs. Deep-Sea Mining**

- **Environmental Impacts as Highlighted by UNEP:** Turbidity, Water Pollution, Alteration in Current Patterns, Shoreline Erosion, and Climate Change Implications
- **Impact on Rocky Reefs & Fishery Wealth of Quilon Bank**
- **Economic vs. Ecological Trade-offs:**
 - Sand Mining vs. Fishery Exports
 - Socioeconomic Consequences on Fishing Communities
 - Need for Sustainable Alternatives and Better Governance
- **International Reports & Guidelines:**
 - *WWF Report (2021) - "In Too Deep"*
 - *UNEP's 2022 Report - "Sand and Sustainability"*
 - *Sand Governance Report (UNEP)*

4. Stakeholder Reactions & Discussion

During the open discussion, several key issues were raised:

- **Concerns from the Fishermen Community:**
 - Direct threats to livelihood due to ecosystem degradation
 - Disruption in fish breeding habitats and reduced fish catch
 - Increased conflict over marine resource access
- **Questions on the Sand Mining Proposal in Kollam:**
 - The panel addressed concerns about a proposed sand mining project in Kollam and stressed the importance of conducting further studies and consultations before proceeding.
- **Media & Civil Society Concerns:**
 - Attendees agreed that the issue extends beyond local impact and requires broader policy intervention.
 - NGOs emphasized the importance of public awareness and advocacy for sustainable practices.
- **Academic & Research Perspectives:**
 - Scholars stressed the necessity of filling data gaps related to marine biodiversity, sand drift impact, and the long-term consequences of seabed mining.

5. Moderator's Closing Remarks

The panel summarized key takeaways:

1. **Deep-sea mining remains controversial and risky**, with major obstacles such as:
 - Environmental impacts on **largely unknown deep-sea ecosystems**
 - **Socioeconomic conflicts** with coastal communities
 - **Weak governance frameworks**
 - **High operational costs**
2. **Existing plans for offshore sand mining should be paused** until detailed research and stakeholder consultations are conducted.

6. Way Forward

The discussion emphasized the need for:

- **Comprehensive Environmental Impact Assessments (EIAs)** before initiating any sand mining projects.
- **A Data-Driven Approach** to evaluate mining's impact, particularly in light of global calls for a moratorium on deep-sea mining.
- **Specific Research Areas Identified:**
 - Quantitative assessments of marine biodiversity (corals, sponges, gorgonids listed under **Schedule I of the Wildlife Protection Act, India**).
 - Evaluation of mining technology and its effects on marine ecosystems.
 - Impact on fishery productivity and sand drift patterns affecting shore stability.
 - Assessment of plume in the dredging process and its consequences on coral reef ecosystems.
- **Policy Advocacy & Multi-Stakeholder Engagement**
 - Calls for continued **dialogues among policymakers, scientists, local communities, and environmental organizations** to ensure sustainable decision-making.

7. Vote of Thanks

Speaker: Sanjo, Program Associate, ISDG

Sanjo expressed gratitude to all attendees, including experts, civil society representatives, fishermen, and students. He reinforced ISDG and KIED's commitment to fostering informed discussions on environmental policy and sustainable development.

Conclusion: The discussion reinforced that **offshore sand mining in shallow waters poses severe risks** to marine biodiversity, coastal livelihoods, and ecosystem balance. The event highlighted the urgent need for **more research, transparent governance, and broader stakeholder engagement** to develop sustainable policies moving forward.