

**Assuring Environmental Compliance in Deep Sea Mining Report**  
**Wednesday, 22 July 2020**  
**Webinar Summary**

### **Introduction and Background**

The Pew Charitable Trusts and RESOLVE organized a webinar on Wednesday, 22 July 2020, from 13:00 – 14:15 BST to provide an overview of the new report: “[Assuring Environmental Compliance in Deep-Sea Mining: Lessons from Industry and Regulators](#)” as well as to hear discussion among some of the panel of experts that informed its development. The report studies different compliance regimes and sets forth recommendations for the International Seabed Authority (ISA) and its stakeholders, and was developed by Dr. Kevin Murphy, an environmental consultant with decades of experience advising mining and other extractive industry stakeholders, with support from The Pew Charitable Trusts.

Andrew Freidman, The Pew Charitable Trusts, welcomed webinar participants and described how the report related to current ISA discussions around how to ensure effective protection of the marine environment from mining’s potential harmful effects. The webinar was facilitated by Paul De Morgan, RESOLVE.

To develop the report, Dr. Murphy, KM Environmental Consulting, conducted research and interviewed regulators in national environmental organizations, natural resource protection agencies, compliance personnel corporations, and international financial institutions over a 12-month period. He also drew on input from a panel of international experts from industry, regulatory agencies, and environmental organizations. The resulting study highlights some of the potential differences between these evolved regimes and the emerging governance framework for seabed mining, while also offering recommendations, based on real-world examples, of ways in which environmental compliance in the Area can be strengthened. Dr. Murphy is a marine scientist by background and a former Partner at Environmental Resources Management.

In addition to a presentation by Dr. Murphy, the webinar provided an opportunity for discussion among some of the experts that informed the report’s development: Renee Grogan, environmental consultant and Director at Gro Sustainability; and Miguel Ruiz-Larrea, former Global Social Performance Manager at Shell.

Ms. Grogan is an environmental consultant with over 14 years’ industry experience in environmental management in both terrestrial and deep sea mining environments, including senior roles with companies including Nautilus Minerals. She now consults on environmental issues, predominantly related to seabed mining, for resources companies, non-governmental organizations, government agencies, and intergovernmental organizations. Ms. Grogan is a Director of the World Ocean Council and Co-Chair of the Deep Ocean Stewardship Working Group on Deep Sea Tailings Disposal.

Mr. Ruiz-Larrea has more than 30 years’ experience in socio-environmental matters for the energy sector, spending the last 25 of those as a social performance and environmental manager throughout different business and projects for Shell in the Middle East, Far East, Europe and the Americas. He retired last year from the corporate world and now is an independent Consultant.

The webinar recording, webinar agenda, slides presented by Dr. Murphy, and webinar participant list are available on [RESOLVE's website](#).

### **Assuring Environmental Compliance in Deep-Sea Mining: Lessons from Industry and Regulators – Report Overview**

Dr. Murphy provided an introduction to the methodology of the report's development and highlighted key findings and recommendations related to compliance promotion, compliance monitoring, and compliance enforcement. Dr. Murphy noted these compliance actions are underpinned by institutional frameworks, accountability and transparency, and evaluation of effectiveness. The slides associated with Dr. Murphy's presentation are available on [RESOLVE's website](#).

Dr. Murphy highlighted the following recommendations for assuring environmental compliance in seabed mining from his report:

- Establish an organizational structure within which environmental compliance assurance functions are ring-fenced from and uninfluenced by other ISA functions.
- Establish an Office of Environmental Compliance staffed by full-time, suitably qualified staff with clear roles and responsibilities.
- Secure adequate funding to support all aspects of compliance assurance, including compliance promotion in addition to inspection and enforcement.
- Adopt a strategic planning and risk-based approach to implementing compliance actions. This includes transparent and consultative annual compliance assessment against clear targets and a strategic plan, as well as the planning of audits and inspections based on individualized risk assessments.
- Compliance actions and decision-making should be supported by a strong evidence base, built in collaboration with contractors and regularly updated with monitoring data. This evidence base should include data on the impacts of mining as well as workable mitigation solutions.
- Develop a proactive compliance enforcement strategy that minimizes the need for enforcement actions, including triggers for early dialogue and actions before formally issuing compliance notices.
- Mechanisms for accountability to stakeholders and transparency with the public should include: 1) public access to all relevant information in timely fashion; 2) sustainability reporting (including projections for years ahead and comparisons against previous targets); 3) whistle-blowing procedures; and 4) independent verification.

### **Panel Discussion: Perspectives on Implications of the Report**

Following Dr. Murphy's presentation, Ms. Grogan and Mr. Ruiz-Larrea joined Dr. Murphy in sharing their perspectives on initial discussion questions. Key points raised by panelists in response to these questions are summarized below.

#### *1. What do you consider hallmarks of an effective extractives regulator?*

Ms. Grogan emphasized the importance of transparency, which includes clear processes for the application process, as well as clear standards and guidelines for compliance monitoring. Ms. Grogan

suggested that the regulator should clearly communicate with the stakeholder community when applications to undertake seabed mining activities are received, whether they are accepted or rejected, and publish decision documents, including public comments from stakeholders. Ms. Grogan also noted that enforcement is one of the most critical and challenging aspects of environmental compliance. Building on Ms. Grogan's points, Mr. Ruiz-Larrea emphasized the need to have intelligible roles and responsibilities within the institutional frameworks supporting the environmental compliance function of the ISA.

Mr. Ruiz-Larrea added that because there is still so much unknown about the practice of seabed mining, it will be important for ISA to be adaptive to new insights gained during the exploration phase. Guidance and standards may need to change based on new evidence, so the ISA will need to be transparent in their decision-making processes and how new information is considered. Ms. Grogan agreed with Mr. Ruiz-Larrea on this point and added that ensuring contractors have regular access to the ISA regulators will be key to facilitating clear communication between the groups.

In response to a follow up question on balancing the dual needs for stability and adaptability, Mr. Ruiz-Larrea indicated that early, frequent dialogue between the contractor and regulator – starting as soon as the contractor is selected – will help avoid confusion and frustration as compliance obligations and expected management approaches evolve in light of new information.

Dr. Murphy noted that regulators are reliant on operators to deliver the desired level of environmental performance, so while it is important for regulators to understand the capacity of an individual contractor for delivering environmental compliance, it is the responsibility of the regulator to adopt measures to provide itself with assurance that compliance can be achieved.

## *2. What are some of the pitfalls in ensuring compliance from an industry perspective?*

Speaking from his experience with the oil and gas industry, Mr. Ruiz-Larrea noted a common pitfall is a lack of adequate resources for environmental compliance, including socio-environmental expertise that is poorly integrated across an organization's structure. Industry actors must also have the right commitment to socio-environmental protection. One indicator of this commitment could be integration of individuals with responsibility to assure compliance into mining operations and not isolated in a different department, such as public affairs. Mr. Ruiz-Larrea also suggested stakeholders should be consulted early in the scoping processes for environmental impact assessments to support transparency and allow adequate time for non-technical (i.e., environmental and social) risk assessment.

Building on Mr. Ruiz-Larrea's points, Ms. Grogan emphasized adequate resources are also a critical pitfall for most regulatory bodies. Ms. Grogan explained that compliance enforcement can suffer from a lack of adequate resources, particularly because the cost of conducting audits and inspections is quite high. Legal frameworks may or may not include the ability to collect significant fines, which can be an important source of funding for regulators.

Dr. Murphy explained that another common pitfall within extractive industries is competition that prevents data sharing. In most instances, seabed mining contractors will be undertaking broadly the same

activities in very similar environments, leading to similar environmental impacts. Consequently, there is great benefit in pooling their resources to better understand the environmental impacts of their operations, working more efficiently as a group to find ways to mitigate impacts and moving the whole industry forward. In response to a follow up question regarding the potential role of the ISA, Ms. Grogan indicated that ISA should play a role in encouraging contractors to proactively collaborate on cumulative impact assessments. Mr. Ruiz-Larrea emphasized that, in his experience, collaboration among contractors requires a mandate from the regulator, and the ISA will be vital to encouraging and facilitating partnerships among contractors in the seabed mining space.

*3. What especially stands out when comparing the ISA to other industry regulators?*

Ms. Grogan indicated compliance enforcement is much more complicated for the ISA compared to other industry regulators because of the need to standardize enforcement across all sponsoring states and all contractors. Ms. Grogan also noted that because of the complex structure of the ISA, it is not always obvious how contractors can effectively access the different resources and authorities within the regulatory body. Finally, Ms. Grogan observed the ISA is not on par with other industry regulators with respect to transparency of contractor data.

Mr. Ruiz-Larrea added that the ISA is in a unique position given the newness of the seabed mining industry and uncertainties related to socio-environmental compliance. Transparency and access to the ISA will be important for contractors to understand and adapt to evolving regulations.

Dr. Murphy noted that the ISA is in a unique position of comprising licensing, regulatory, and extractive functions, which could result in conflicts of interest. However, Dr. Murphy explained that these conflicts can be avoided by ensuring that an environmental compliance office has a strong mandate and is independent, ring fenced from, and uninfluenced by other ISA functions.

*4. What would be your top one or two recommendations to the ISA?*

Mr. Ruiz-Larrea indicated his top recommendation is that the ISA's environmental compliance office needs to be adequately resourced and ring-fenced from other functions so it has the power to enforce regulations. Dr. Murphy noted that is also his top recommendation and added it will be important for staff within an environmental compliance office to be recruited from a pool of suitably qualified professionals and have clear career development pathways and access to training.

Ms. Grogan indicated her top recommendation is that the ISA and sponsoring states have adequate enforcement mechanisms. A second recommendation is to work towards improving transparency, and there are actions the ISA can take in the short term to improve transparency that will yield long-term benefits.

### **Addressing Questions from Participants**

Following the panel discussion, webinar participants were invited to share questions. The questions posed and panelist responses are included below.

*Q: Where can the ISA get the money and capacity to undertake some of these suggestions? Put another way, is it reasonable to expect it to do these things?*

Ms. Grogan explained that funding is particularly challenging in the exploration phase, and the ISA should consider a revision of the fees associated with exploration contracts. Ms. Grogan added regulators often rely on fine and monetary penalties to support their work. Building on these points, Dr. Murphy explained that the ISA should first decide what an optimal compliance regime entails and then determine how much it will cost to implement. After understanding what kind of funding is required for implementation, then the ISA can better understand how various stakeholders will be able to contribute to funding the compliance regime, as well as how fees can be used to augment those funding sources. Mr. Ruiz-Larrea noted that imposing excessive fees and fines can encourage bad behavior from contractors, and the funding for environmental compliance should not depend on such fees.

*Q: What should be the role of the Legal and Technical Commission (LTC) in monitoring and securing environmental compliance? How can environmental compliance expertise be better integrated into the LTC while still ensuring the geographic representation that has characterized it thus far? And are there distinct roles for an independent environmental committee versus the LTC?*

Mr. Ruiz-Larrea explained that while the LTC has an important role, an environmental compliance office should be separate from the LTC and focus on the technical ability of the ISA to assure compliance. Ms. Grogan highlighted that the LTC meets relatively infrequently and may not be very accessible to stakeholders. Building on Ms. Grogan's observation, Dr. Murphy noted the LTC does not have the capacity for the heavy lifting needed to undertake monitoring and enforcement in a future scenario of multiple seabed mining operations in several ocean regions.

*Q: As we all know, exploration is already underway and the focus is now on the regime that will govern exploitation. But are we missing a step? Based on your experience, are the compliance mechanisms proposed not also applicable during the exploration phase? And if so, what does that mean as we contemplate moving from the exploration to exploitation stage without such mechanisms in place?*

Ms. Grogan highlighted the importance of precedent setting in the exploration phase, for example relating to transparency, noting contractors should not be able to move forward to exploitation without first meeting the requirements of their exploration contract. Mr. Ruiz-Larrea also emphasized the importance of adaptability continuing into the exploitation phase, as contractors grapple with unforeseen technical challenges. It will be important for the ISA to be transparent and communicative about how new information impacts and informs regulations.

*Q: There has been resistance to adding an environmental committee in the ISA or even an environmental subcommittee to the LTC. But it is assumed that at some point a sort of "regulator" or "inspectorate" division will be created. What will its role be in securing environmental compliance? Could it fill some or all of these functions?*

Dr. Murphy explained that the ability of an inspectorate to assure environmental compliance will depend on the scope of its duties and whether it will focus on multiple parameters or environmental compliance alone. Dr. Murphy indicated a single-minded prioritization of environmental risks must be the focus of either the inspectorate or a conventional compliance organization in order to be successful in securing environmental compliance. Ms. Grogan noted that the International Maritime Organization and international fisheries offer precedents and insights for organizing a collaborative effort to share the role of an inspectorate among multiple stakeholders. Ms. Grogan also emphasized Mr. Ruiz-Larrea's earlier points on the need for sufficient resources to conduct inspections, analyze data from inspections, and then enforce compliance.

In response to follow-up questions on the role of compliance assurance before extractive activities are underway, Mr. Ruiz-Larrea explained that compliance assurance must start early. For example, in order to qualify for a contract, applicants should be assessed for their ability and capacity to comply with environmental regulations. This assessment could be under the purview of an inspectorate. Ms. Grogan agreed and added that an inspectorate will require a range of expertise in order to manage responsibilities ranging from reviewing application materials, such as environmental impact statements, to conducting inspections on vessels. Dr. Murphy noted that an inspectorate or compliance organization would need to include more scientifically orientated skill sets, in addition to the skills needed for audit/inspection type functions, to be able to properly evaluate the longer-term and cumulative impact of seabed mining. This assessment of cumulative impacts may even be more important than annual inspection-type activities

*Q: Could you expand upon the role that regional environmental management plans (REMPs), considered as a spatial planning tool, might play a role in incentivizing cooperation between contractors/regulators on monitoring and compliance? Under what conditions might REMPs spur this kind of cooperation?*

Ms. Grogan explained that a cost effective way to monitor environmental conditions in exploration zones is to require contractors to monitor set-aside areas on behalf of the ISA when conducting baseline data collection for their operations. This can also serve as a starting point to explore opportunities for contractors to share baseline data from outside of contract areas that are relevant to all contractors.

*Q: Having been awarded a contract, what expectations can contractors have of their regulator in terms of fairness, transparency, responsiveness, predictability, etc.? What process is due to contractors?*

Dr. Murphy explained that he anticipates some contractors will have more resources in place than a regulator to demonstrate environmental compliance to its company leadership and its sponsoring state. Mr. Ruiz-Larrea added some contractors may have internal standards that go beyond the requirements of the regulator, sometimes referred to in the industry as "going beyond compliance."

Ms. Grogan emphasized the importance of predictability and clear processes for resource companies in securing external investments. Potential investors are also interested in assuring that all companies within

an industry will be treated equally by regulators, with standardized enforcement and assessment processes – a level playing field – as this reduces perceived risk to investors.

**Closing Remarks and Next Steps**

Mr. Freidman closed the webinar by thanking the panelists and participants and inviting participants to share thoughts on topics for future webinars in the series of substantive discussions Pew will sponsor before the next meeting of the ISA Council. In an effort to ensure wide participation of stakeholders in different time zones, the timing for future webinars will be staggered, and sessions will be recorded and shared. Please visit [RESOLVE's website](#) for more information on future webinars in this series on draft regulations for seabed mining.

## Webinar Participation

### Panelists

- Renee Grogan, Gro Sustainability Ltd
- Kevin Murphy, KM Environmental Consulting
- Miguel Ruiz-Larrea, former Global Social Performance Manager, Shell

### Participants

- Andry Accouche, Department of Foreign Affairs of the Republic of Seychelles
- Medard Ainomuhisha, Permanent Mission of Uganda to the United Nations
- Talatu Akindolire, ISA
- Teresa Amaro, CIIMAR
- Diva Amon, Natural History Museum, London
- Arvind Anand, Geological Survey of Canada
- Jeff Ardron, Commonwealth Secretariat
- Juan Azofeifa, Universidad de Costa Rica
- Maria Baker, DOSI/University of Southampton
- Francisco J Bernales, Embassy of Chile
- Tania Nara Bezerra, Ghent University
- Kathryn Bomey, The Pew Charitable Trusts
- Samira Bowden, TEM Network
- Assheton Carter, TDI Sustainability
- Michael Clarke, Consultant
- Ana Colaco, Okeanos
- Bronwen Currie, Retired, Independent
- Hans-Peter Damian, German Environment Agency
- Tom De Wachter, GSR
- Mamadou Diallo, COREWAM
- Peter Edwards, The Pew Charitable Trusts
- Edwin Egede, Cardiff University
- Livia Ermakova, VNIIOKEANGEOLOGIA
- Elva Escobar, UNAM ICML
- Patricia Esquete, Aveiro University
- Felix Garcia, Representante Permanente de la RD en ISA
- Ana Garzon, InsightsFuture
- Coumba Gaye, Senegal mission
- Kristina Gjerde, IUCN
- Gina Guillen-Grillo, Permanent Mission to the ISA
- Patrick Halpin, Marine Geospatial Ecology Lab, Duke University
- Becky Hitchin, JNCC
- Richard Holmes, Seafarers UK
- Pippa Howard, Fauna & Flora International
- Zino Izourar, Algeria Mission
- Jun Jiang, Permanent Mission of the People's Republic of China to ISA
- Megan Jungwiwattanaporn, The Pew Charitable Trusts
- Michael Kanu, Sierra Leone Mission to the United Nations
- Yota Kawai, Japan NUS Co., Ltd.
- Hajime Kawamura, Japan NUS Co., Ltd.
- Solomon Korbie, Permanent Mission of Ghana to the United Nations
- Kerstin Kröger, Joint Nature Conservation Committee
- Aahde Lahmiri, Permanent Mission of Morocco to the United Nations
- Moeketsi Lekobane, United Nations
- Hannah Lily, Consultant
- Feng Liu, China Ocean Association
- Silvia Maciunas, Centre for International Governance Innovation
- Elisabetta Menini, Duke University
- Thabo Molefe, Government
- Duncan Muhumuza, Uganda Mission
- Margaret Murphy, The Pew Charitable Trusts
- Deryck Murray, Permanent Mission of Trinidad and Tobago to ISA



- Ifeanyi Nwakudu, Permanent Mission of Nigeria to the United Nations
- Chilenye Nwapi, The Commonwealth Secretariat
- Emmanuel Oguntuyi, Nigeria High Commission
- Louisa Rio, Federal Agency for Environment
- Laura Robson, JNCC
- Godfrey Rolle, Ministry of Foreign Affairs
- Marzia Rovere, CNR
- Charlotte Salpin, ISA
- Patrik Schotte, FPS Economy - Belgium
- Lamine Sidibe, Centre de Protection du Milieu Marin et des Zones Côtières (CPMZC)
- Pradeep Singh, Institute for Advanced Sustainability Studies
- Samantha Smith, Blue Globe Solutions
- Jason Smith, DeepGreen
- Alison Swaddling, The Commonwealth Secretariat
- Soichiro Tanaka, DORD
- Torsten Thiele, IASS
- Eunice Umezurikeb, Permanent Mission of Nigeria to the United Nations
- Patricio Urueña Palacio, Embassy of Argentina in Jamaica
- Rory Usher, DeepGreen Metals
- Siosua Utoikamanu, Independent Consultant
- Cindy Van Dover, Duke University
- Steven Vandendorpe, Belgian federal DG Environment
- Philomene Verlaan, Advisory Committee on Protection of the Sea
- Annemiek Vink, Bundesanstalt für Geowissenschaften und Rohstoffe
- Fang Wang, China Ocean Association
- Philip Weaver, Seascope Consultants
- Daniel Wilde, The Commonwealth Secretariat
- Christopher Williams, UK Seabed Resources
- Winnie Yeh, World Economic Forum Geneva
- Anna Zalik, York University

#### *Organizers*

- Laura Bartock, RESOLVE
- Maya Breitburg-Smith, RESOLVE,
- Anindita Chakraborty, The Pew Charitable Trusts
- Paul De Morgan, RESOLVE
- Andrew Friedman, The Pew Charitable Trusts