ISA Inspections and ISA Inspectorate: What will be Needed?

Report from a One-Day Workshop for Participants and Observers of the Annual Session of the International Seabed Authority

Co-Organizers: The Pew Charitable Trusts and RESOLVE
Irish Town, Jamaica
Saturday 20 July 2019

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Introduction

Since July 2016, Pew and RESOLVE have organized weekend workshops for participants of the Annual Sessions of the International Seabed Authority (ISA). Attendees have included representatives of Member States, contractors, non-governmental organizations, intergovernmental organizations, and a variety of outside experts. The general goal has been to present information on, and stimulate discussion about, broad topics of long-term interest to ISA institutional development. Previous workshops have covered the development of institutional transparency; the regulatory capacitation of the ISA; and the operationalization of the “Common Heritage of Mankind.”

This year’s topic was “ISA Inspections and ISA Inspectorate: What Will Be Needed,” covering the requirement for an ISA Inspectorate, what role the Inspectorate would play, and how to make it as functional and effective as possible. Sixty-eight participants spent a full day at a meeting facility in Irish Town, Jamaica, twenty kilometers from the ISA Headquarters in Kingston. In addition to formal presentations and discussions involving all in attendance, the 2019 program also included small group discussions designed to encourage broad participation and candid exchanges. Participants and organizers agreed not to attribute comments made during the workshop to a particular person or entity in subsequent discussions or reports.

A copy of the workshop agenda is attached as Appendix A. Participants are listed in Appendix B.

The workshop started with four context-setting presentations. After which participants engaged in discussions on the following six questions:

- What needs to be inspected?
- What could be the role(s) of the inspectors?
- What could be the relationship of the ISA to the inspectors?
- What other ways of monitoring could the ISA employ to complement on-site inspections?
- What are likely challenges?
- What principles should govern the Inspectorate regime?
Context-Setting Presentations
Below are brief descriptions of four presentations provided to set the stage for workshop participant discussions.

1. Legal Framework for Inspections in the Area and Relevant ISA Discussions to Date
The slides associated with this presentation are available on Dropbox.

Hannah Lily, Pew Charitable Trusts, presented on the legal framework for inspections in the Area and relevant ISA discussions to date. Ms. Lily detailed the relevant provisions in UNCLOS, the ISA’s Exploration Regulations, and the draft Exploitation Regulations which provide some indication of what may be required or anticipated from the ISA Inspectorate regime.

Relevant UNCLOS provisions on inspections identified included (emphases added):

- **Article 153 (5):**
  - The Authority shall have the right to take at any time any measures provided for under this Part to ensure compliance with its provisions and the exercise of the functions of control and regulation assigned to it thereunder or under any contract.
  - The ISA shall have the **right to inspect** all installations in the Area used in connection with activities in the Area.

- **Article 162 (2)(z):**
  - The Council shall … establish appropriate mechanisms for **directing and supervising** a **staff of inspectors** who shall inspect activities in the Area to determine whether this Part, the rules, regulations and procedures of the Authority, and the terms and conditions of any contract with the Authority are being complied with.

- **Article 165 (2)(m):**
  - The Commission shall … make recommendations to the Council regarding the **direction and supervision** of a **staff of inspectors** who shall inspect activities in the Area to determine whether the provisions of this Part, the rules, regulations and procedures of the Authority, and the terms and conditions of any contract with the Authority are being complied with.

Ms. Lily described the text about inspections already included in the ISA’s Exploration Regulations, and that proposed in the current draft of the Exploitation Regulations. She highlighted recent comments made by member states on the draft text, and encouraged meeting participants to submit their own feedback on the inspection provisions of the draft Exploitation Regulations in the current consultation (*Deadline 15 October 2019, contact address: consultation@isa.org.jm*).
2. Exploitation Operations in Practice
The slides associated with this presentation are available on Dropbox.

Samantha Smith, Global Sea Mineral Resources, presented on how seabed mining operations in the international seabed area are likely to be conducted by way of cutting and collecting (sulfides, crusts) or collecting (nodules), lifting, de-watering, and transshipment. Dr. Smith detailed the monitoring program that contractors are likely to follow, including the need to demonstrate compliance with an Environmental Impact Statement and Environmental Management and Monitoring Plan. She also noted that it may be 8 years before the earliest mining operation commences in the Area, and highlighted the logistical challenges that need to be considered in relation to on-site inspections given the remoteness of the sites, and the water depths of the operations.

Dr. Smith also gave a brief overview of the range of monitoring options (e.g., remote versus direct monitoring; real-time versus stored data) and types of data that may be collected (e.g., turbidity, speed and direction of current, sediment, temperature). Dr. Smith highlighted that it is important to locate monitoring stations both in areas where contractors expect impacts as well as where impacts are not expected. This way, monitoring can detect early warning signs should areas experience greater impacts than anticipated, which would allow an operator to respond to ensure impacts do not extend to, for example, set-aside areas. Dr. Smith noted other key considerations for inspection mechanisms include access to satellite capacity, berths for inspectors, and offshore safety requirements.

3. Remote Technology as an Inspection Tool
The slides associated with this presentation are available on Dropbox.

Diva Amon, Deep Ocean Stewardship Initiative/Natural History Museum, London, presented on remote observation technologies that are currently used for scientific research, including tools that provide, variously, long-term observations (i.e. cabled observatories), large-scale observations (i.e. ship based tools and autonomous underwater vehicles (AUVs)), fine-scale observations (remotely operated vehicles (ROVs) and human operated vehicles), 3D mapping, and telepresence.

Dr. Amon noted that each tool or method has advantages and disadvantages, and a strong inspection regime may use a combination of the available technologies.

4. Existing Inspectorate Examples
The slides associated with this presentation are available on Dropbox.

Pippa Howard, Flora and Fauna International, presented on existing inspection regimes for other types of offshore activities that might serve as examples or lessons learned for an ISA inspectorate, including: the oil and gas industry, fisheries, the Antarctic Treaty and the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR). Ms. Howard also highlighted the potential roles for private sector services in the operation of inspectorates.
Workshop Discussions
Below are summarized the range of ideas and proposals that arose out of the day’s discussions, arranged in accordance with the six questions posed to participants.

1. What needs to be inspected?
   - Operational compliance by contractors: adherence to the plan of work. Includes:
     - Amount mined
     - Resource type mined, and resource evaluation.
     - Location of operations and area of impact.
     - The validity of assumptions and predictions made in the contractor’s Environmental Impact Statement.
     - Nature of environmental impacts, against those forecast in the contractor’s Environmental Management and Monitoring Plan.
     - Adherence to environmental monitoring obligations.
     - Fulfilment of training obligations.
   - Legal compliance by contractors: adherence to UNCLOS, the ISA Regulations and the terms and conditions of contract. Includes:
     - Safety and labor standards.
     - Vessel and equipment standards.
     - Contractor solvency, and track record of payments to the ISA.
     - Conformity with regional environmental management plans (REMPs) and other ISA environmental objectives and standards.
     - Record-keeping.
     - Data system integrity and security.
   - Other:
     - The inspectors themselves will need oversight.
     - The overall state of the environment.
     - Unforeseen environmental impacts, including on a regional-scale (e.g., cumulative impacts, from multiple mining operations, or multiple marine activities).

2. What could be the role of the inspectors?
   **Mandate**
   - The role of the inspector (and timing of inspections) may differ depending on:
     - the matter being inspected (e.g., health and safety, environmental impacts, ship procedures, books and records);
     - the different stages of the DSM process (e.g., exploration, testing, exploitation); and
     - the location of the inspection (e.g., on a contractor ship, at port, at office premises).
   - As well as checking individual contractor compliance, the Inspectorate could be tasked to:
     - foster an understanding of all the ISA’s rules and regulations, and also to make recommendations to the ISA for improving those.
     - coordinate inspections with sponsoring States and Flag States.
o achieve an overview of all contractors’ performance, so that (i) an individual contractor’s performance could be understood within a larger context, (ii) peer-to-peer learning between contractors could be facilitated, and (iii) the Inspectorate could provide advice to the ISA on the evolving interpretation of ‘best environmental practices’ and ‘good industry practice’ (two cornerstones of the draft Exploitation Regulations).

- Monitoring of environmental impacts, might be a role not for inspectors, but for a scientific body with a different reporting line.
- Whether inspectors should have an enforcement role, or simply a monitoring role, was discussed. Some participants felt that the inspectors should have the mandate to provide compliance notices, issue emergency orders, and order the contractor to take remedial actions.
- It was emphasized that inspectors were not responsible only to gather and report raw data, but also analyze and assess its implications.

**Method of working**

- Inspectors should provide regular reports, which should be made available to all ISA organs and the public. A defined procedure or template for standardized reporting (and standardization of data) should be designed, to promote transparency and clarity. The Inspectorate could also help adapt the template for inspections with an emphasis on continuous learning.
- It was proposed that mechanisms should be established to ensure that all contractor data flows directly to the Inspectorate.
- Some noted the importance of data flow between the sponsoring State and the ISA, with a few querying the willingness of States to share data with the Inspectorate.
- Participants also discussed the role of the public, where public consultation might be relevant, and how inspection data and reports might be shared with the public.
- It was noted that transport and accommodation will be needed to enable inspectors to conduct on-vessel inspections.

**Staffing**

- Participants discussed who the inspectors should be, and that the Inspectorate would need to have a team with a range of diverse skills and knowledge (e.g., biology, geology, accounting, ship and machinery mechanics, health and safety, legal rules).
- There may be a need for “Periodic Inspection Teams” working less frequently (e.g., reviewing monitoring reports, conducting on-board inspection visits), as well as a permanent staff of inspectors.
- The ISA could hold a roster of vetted and trained inspectors, to be called upon when needed.
  o States as nominators were suggested (but would require conflict of interest rules for inspector selections)
  o If there is a roster, there would need to be a review or quality-check mechanism.
- Training should be provided to inspectors to ensure quality and currency of inspectors’ expertise.
- It was proposed that the ISA should establish its own inspector training program, which could possibly be coordinated by the Secretariat.
• Some participants considered that qualification of an applicant should take precedence over geographical diversity, in inspector recruitment decisions.
• A clear chain of command will need to be established.
• The size of the Inspectorate was discussed – some thought the Inspectorate would be an office at the ISA with a few people, while others felt that mining operation would need a dedicated inspector team to review the large variety of things needing inspecting.
• For on-vessel inspections, 24-hour monitoring may be required, necessitating a team of experts, for example three inspectors working in 8-hour shifts.

3. What could be the relationship of the ISA to the inspectors?
• UNCLOS provides that the Council establishes the direction and supervision mechanism for the Inspectorate, based on recommendations made by the LTC.
• Participants repeatedly highlighted the need to assure the independence of the Inspectorate and to avoid conflicts of interest among inspectors, or political interference.
• Participants discussed whether the Inspectorate should be a new separate arm of the ISA, or whether it should be housed within a current body such as the Secretariat. It was noted that UNCLOS describes the Secretariat as an administrative function, and does not confer any inspectorate duties or function upon the staff of the Secretariat.
• Options proposed included:
  o A standalone Inspectorate managed by its own Director-General, a subsidiary organ accountable to the Council and supported by the Secretariat.
  o Inspectorate housed within the Secretariat (reporting to the LTC and Council).
  o Inspectorate as a subsidiary, reporting to the Secretariat.
• Participants noted that inspector reports should go, in some form, to the Secretariat, the LTC, the Council, the Assembly, Sponsoring States and the public – possibly in more refined forms as the report flows from one body to the next.
• A point of discussion was who should have decision making authority in the case of major or urgent issues. Not all participants agreed with the current draft Exploitation Regulations regime which provides that:
  o the Council could issue emergency orders and terminate contracts,
  o the Secretary-General could issue compliance notices,
  o Inspectors could give instructions to the Contractor to remedy a situation that endangered the health or safety of any person or poses a threat of Serious Harm to the Marine Environment.
• Standards and guidelines should be developed to flesh out what the threshold is for use of any ISA organ’s inspection or compliance powers. In particular, rules should be clarified for when inspectors can act immediately versus requiring further authority or decision from another ISA organ.
• Other organs of the ISA would need to:
  o be responsible for recruitment and training of inspectors,
  o set a code of conduct for inspectors,
  o provide inspectors with relevant identification documents,
o oversee inspector conflict of interest identification and management,
o quality control inspections,
o provide some appellate jurisdiction or dispute resolution procedure.

4. What other ways of monitoring could the ISA employ to complement on-site inspections?
   - Use of remote technology, including real-time reporting. For example:
     o Monitoring buoys in the ocean 24/7, sending live data back to a land-based entity.
     o Underwater cameras, and telepresence.
     o In situ acoustic devices for monitoring sound levels.
     o Electronic monitoring systems (protected and inspected against tampering),
     o Low Earth Orbit (LEO) satellite imaging.
   - A scientific observation system (like CCAMLR).
   - Use of third-party professional and independent services (e.g., classification society certification that technology or vessels meet set standards).
   - Use of independent third-party science institutions and academia (e.g., for data-mining).
   - States parties should incorporate inspection provision in their domestic legislation and regimes for deep seabed mining, specifically:
     o Port state customs inspections could provide an opportunity to inspect extracted ore.
     o Sponsoring State inspection or observer schemes.
     o Coastal States may be able to assist with monitoring activities near them. Some participants proposed that if a mining zone is close to the national jurisdiction of a coastal State, then the State should have priority receipt of monitoring data. Where the State is a developing nation, then training support should also be provided.
   - Self-monitoring by contractors (log books, insurance reporting requirements, incident reporting requirements, etc.)
   - Independent financial audit requirements for contractor accounts and records, tax records, unusual fluctuations in commodity prices.
   - Regular independent auditing requirement (every 5 years).
   - Benchmarking (against the Enterprise).
   - Pre- and post-collection vessel inspections
   - Processing plant receipt data or visits.
   - Port inspections, or customs records.
   - Customs (designated customs for receiving?)
   - Auditing on-shore
   - Debriefing inspectors
   - Thresholds and indicators for pre-emergency alarms.

5. What are likely challenges?
   - Funding.
     o Participants discussed funding by contractor fees (via a pooling mechanism and managed by ISA organs, to avoid perception of contractor influence), vs. funding by ‘mankind’ (i.e., State contributions).
As more contractors are granted contracts and the ISA grows, there will be a need for more inspectors. The participants discussed scalability and the need for the ISA to consider its growth over time.

- Working as an intergovernmental organization via various different sovereign states.
  - The regime design should navigate the inherent difficulties the ISA’s structure faces to mobilize quickly in an emergency situation.

- Independence.
  - Managing conflicts of interest.
  - Structuring the Inspectorate to avoid risk of political interference.
  - Preventing corruption and bias.

- Access to data.
  - The ISA should focus on identifying what data is needed (and then requiring its collection), rather than designing the regime around data that we are currently able to collect.
  - Affording appropriate protection to confidential data, whilst sharing inspection reports with relevant ISA organs and the public.

- Timing.
  - The inspection regime should be operational before the first mining operation starts (at least).
  - Some participants expressed concern that there was no inspection capability within the ISA now, despite the number of active exploration operations already under contract.
  - Some participants recommended a 24/7 capability, and real-time information flow.

- Liability of inspectors (for example, where a contractor may wish for claim damages arising from an inspector’s actions) will need to be considered and factored into the ISA regime.

- Sourcing and training staff (and balancing representativeness and expertise in recruitment).

- How to ensure the Inspectorate mechanism and the ISA’s enforcement regime are aligned, and informing each other.

- Avoidance of duplication with other inspection regimes (sponsoring State, flag State), and coordination across jurisdictions and regions.

- Accessing technology for ISA’s own use, and adapting the regime as technology changes

- Protecting worker and inspector health and safety.

- Logistics of inspecting remote sites

- How to inspect for issues with high scientific uncertainty?

6. What principles should govern the Inspectorate regime?

- Independence and impartiality.
- Expertise.
- Equity and equality (‘level playing field’), with standardized procedures and consistency.
- Discretion (not interfering with operations, protecting confidential information).
- Clarity of responsibilities and powers (adhering to the parameters set by UNCLOS), and accountability for performance.
- Proportionality, and complementarity to other ISA organs and State mechanisms.
• Transparency, with open access to non-confidential monitoring data.
• Accuracy and data integrity.
• An evidence- and science-based approach.
• Robustness, effectiveness and enforceability.
• Probity.
• Safety.
• Cost-effective, and sufficiently resourced.
• Innovation, adaptiveness, and high-tech.
• Inclusivity (gender equity, geographical representativeness, enabling participation by developing States).
• Precautionary and pre-emptive.

Closing Remarks
The discussions closed with participants reiterating important outstanding questions for the development of an ISA Inspectorate, such as how to finance the Inspectorate and how to take enforcement action on basis of the findings of the Inspectorate. No consensus was sought or reached, other than agreement that independence and impartiality should be cornerstones of any ISA Inspectorate regime, and that the subject matter was important, complicated, and multi-faceted in scope. Participants emphasized that States have a unique opportunity to create a deep seabed mining regime that is fit for purpose before exploitation begins, which will require some challenging policy decisions by the ISA.

This report is being shared to provide ideas and considerations that can be drawn on by all stakeholders as the ISA works towards operationalizing its inspectorate function.
Appendix A: Workshop Agenda

ISA Inspections and ISA Inspectorate: What will be Needed?
A Side Event at the International Seabed Authority Annual Session
Saturday, 20 July 2019

Agenda

Strawberry Hill Hotel
Irish Town, Jamaica

Event Objective: Explore the requirement for an International Seabed Authority (ISA) Inspectorate, what role the Inspectorate would play, and how to make it as functional and effective as possible.

This will be done via an exchange of ideas around the following questions:

- What could be the role(s) of the inspectors?
- What could be the relationship of the ISA to the inspectors?
- What other ways of monitoring could the ISA employ to complement on-site inspections?
- What are likely challenges?
- What principles should govern the Inspectorate regime?

8:00 Meet at the Jamaica Pegasus Hotel (81 Knutsford Boulevard, Kingston) for transport from Kingston to Strawberry Hill Hotel at 8:00 – the buses will depart at 8:15.

9:15 – 9:30 Registration (Coffee and Light Refreshments Available)

9:30 – 9:45 Welcome and Agenda Review

- Introductions and overview of the workshop – Paul De Morgan, RESOLVE
- Opening remarks – Conn Nugent, Pew Charitable Trusts

9:45 – 10:45 Setting the Context

9:45 – 10:00 Legal Framework for Inspections in the Area and Relevant ISA Discussions to Date – Hannah Lily, Pew Charitable Trusts

10:00 – 10:15 Exploitation Operations in Practice – Samantha Smith, Global Sea Mineral Resources

10:15 – 10:30 Remote Technology as an Inspection Tool – Diva Amon, Natural History Museum, UK

10:30 – 10:45 Existing Inspectorate Examples – Pippa Howard, Flora and Fauna International

10:45 – 11:30 Participant Perspectives

- Opportunity for all participant to share initial thoughts on overarching Workshop objective building on context setting presentations
- Initial table discussion: What needs to be inspected?
- Group discussion of results to frame future breakout groups

11:30 – 11:45 Introduction to World Café Approach for Afternoon

- Overview of breakout group process and opportunity for clarifications
11:45 – 12:45  **Lunch [Provided]**

12:45 – 15:00  **World Café: Small Group Discussions**
- Each moderated table will discuss one of the following questions:
  1. What could be the role(s) of the inspectors?
  2. What could be the relationship of the ISA to the inspectors?
  3. What other ways of monitoring could the ISA employ to complement on-site inspections?
  4. What are likely challenges?
  5. What principles should govern the Inspectorate regime?
- Participants will begin at one of the tables and discuss their initial question for ~25 minutes, then rotate to other tables for four additional ~25 minute discussions

15:00 – 15:30  **Break (and Moderator Summary Development)**

15:30 – 16:45  **World Café: Plenary Discussions**
- **15:30 – 15:45**  Question #1 (same approach for each):
  - Moderators provide brief overview
  - Participants’ pose questions and offer comments

  **15:45 – 16:00**  Question #2
  **16:00 – 16:15**  Question #3
  **16:15 – 16:30**  Question #4
  **16:30 – 16:45**  Question #5

16:45 – 17:20  **Open Discussion**
- Opportunity for plenary to explore and discuss themes and issues emerging from day’s deliberations

17:20 – 17:30  **Wrap-up and Acknowledgments**

17:30  **Adjourn Side Event to Dinner**

**NOTE:** the Side Event will be followed by a reception and dinner at the hotel; buses back to Kingston will be available after dinner for all participants beginning at 20:00. Other buses will be leaving at 23:00.
## Appendix B: Participant List

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
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<td>Tshifhi Thovhogi</td>
<td>South Africa</td>
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<td>Johan Vande Lanotte</td>
<td>Global Sea Mineral Resources</td>
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<td>Advisory Committee for Protection of the Sea</td>
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<td>Michelle Walker</td>
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<td>UK Seabed Resources</td>
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<tr>
<td>Xiaojun Zhuo</td>
<td>China Minmetals Corporation</td>
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