Test Mining:
Overview of legal aspects

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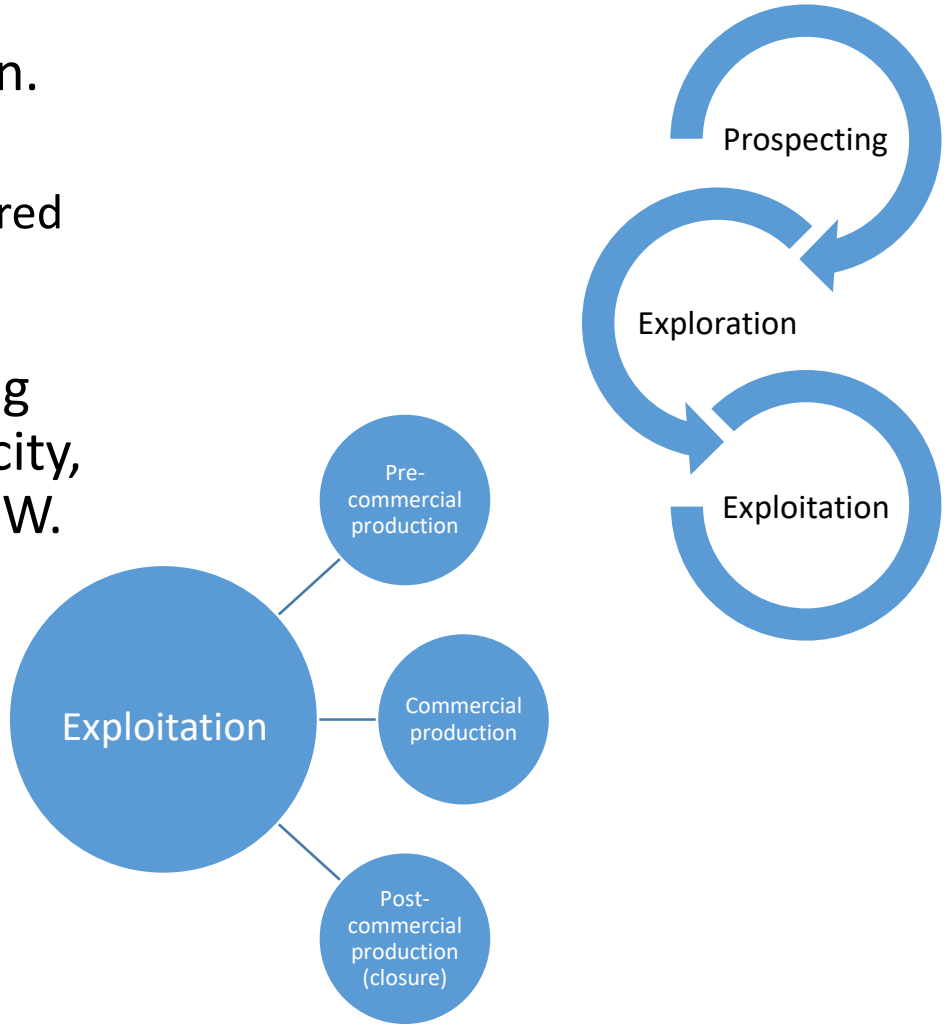
Background – Phases of DSM under UNCLOS

- Activities in the Area: exploration and exploitation.
  - Prospect: optional (but regulated)
  - Explore and exploit: ISA approval and contract required

- Exploration: gathering data, sampling, establishing baseline, securing financial and operational capacity, testing, and preparing EIA etc. for exploitation PoW.

- Exploitation:
  - Pre-commercial production
  - Commercial production
  - Post-commercial production or closure



Test mining during exploration

- TM is mining – hence there is a process for TM during exploration:
  - LTC Recommendations (ISBA/25/6/LTC/Rev.3) apply.

- Under currently exploration regime, TM is “optional”.
  - Up to contractor: not a legal requirement under exploration contract.
  - Makes sense not to make it a legal requirement for all exploration contractors – some may choose not to proceed.

- Germany’s proposal in DR 48 ter: TM mandatory ONLY for those exploration contractors wishing to move to exploit:
  - The EIA to support application for exploitation must be based on reliable, in situ, data from (some degree of) exploratory TM
    - To be defined in Standard/Annex.

Umweltforschungsplan des
Bundesministeriums für Umwelt,
Naturschutz, Bau und Reaktorsicherheit

Forschungskennzahl 3717252270
UBA-FB-00 [trägt die UBA-Bibliothek ein]

Test mining in the Area: Legal, regulatory, environmental governance and scientific perspectives

Teilbericht des Projektes

Umweltfachliche Begleitung des "Pilot Mining Tests" im deutschen Lizenzgebiet (Clarion-Clipperton Zone)

von

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Im Auftrag des Umweltbundesamtes

Abschlussdatum [April 2021]

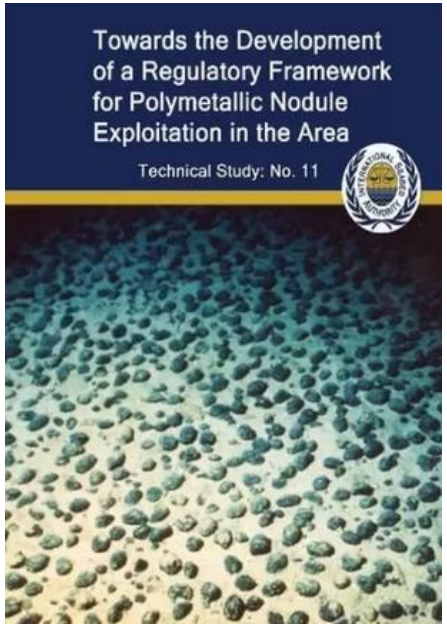
PMT as an intermediate step?

- An “in-between” between exploration and commercial exploitation.

- Best described as pre-commercial production phase in exploitation.
  - Distinction recognized under UNCLOS / 1994 Agreement.
  - But note: Art. 151 of UNCLOS (production policies) deleted by 1994 Agreement

- Yet, it is possible to envisage such a stage for PMT (among others):
  - See ISA Technical Study No. 11 (2013), academic literature
  - Pilot mining test: New text proposal in DR48 ter alt.
    - Close to original proposal by Germany in 2019 (DR 48 bis) – option to elect.

- Regulatory checkpoints: DR 25, 57: “Feasibility Study”, “Material Change”?
  - C.f. PMT and validation monitoring.



Regulation 48 ter. Alt.
Pilot Mining
1. Subject to this Regulation, a Contractor shall conduct “Pilot Mining” before starting any Commercial Production under an Exploitation Contract. Information gathered through Pilot Mining shall be compiled in a Pilot Mining report in accordance with the applicable Standard and taking into consideration the Guidelines.
2. Pilot Mining is conducted by a Contractor in its preparation for commencement of Commercial Production, and to assist the Commission in its evaluation of the Feasibility Study.
3. The purpose of the Pilot Mining is to validate that the proposed mining equipment is commercially and technically appropriate and the effects of the activity, in particular with regard to the Protection of the environment, operates as described in the Environmental Impact Statement/Plan of Work.

Legal definition

- Depends on TM objectives, scope, duration, etc., mandatory nature, and where TM is situated.

Current TM Definition	New PMT Definition
"in situ testing that do not have harmful effects on the marine environment of the integrated system of all equipment and all related process steps (e.g. including collector, raiser and release techniques) for Exploitation activities in a Contract Area under appropriate technical, spatial and temporal conditions which allows the Test Mining for the provision of evidence to support the information provided by an applicant in its application for a Plan of Work for Exploitation, and to assist the Commission and the Council in its evaluation of the application against the criteria contained in Regulation 13 and 15".	*"in situ operating of the integrated system of all equipment and all related process steps, including collector, raiser and release techniques, for exploitation activities in a Contract Area under appropriate technical, spatial and temporal conditions which provides evidence concerning, inter alia, environmental impact, commercial capacity, duration of operations to validate feasibility of future Commercial Production".*

Process: Approval of TM during exploration

- ISBA/25/6/LTC/Rev.3: Current LTC recommendations for exploration regime – weak.
  - Submission of EIA at least one year in advance.
  - Pre-check by SG, followed by LTC review for “completeness, accuracy, statistical reliability”.
  - Requirements pertaining to adequacy of baseline data, designation of IRZ/PRZs and monitoring only loosely elaborated upon.
  - Consultation requirements are vague – expected but not required / regulated
    - Consequence: in practice, consultation conducted after the EIS is submitted.
  - Role / powers of ISA organs in evaluating/approving the EIS not clear
    - LTC provides recommendations to the SG whether to incorporate the EIS under the programme of activities under the exploration contract – unclear whether this is binding and whether LTC can impose conditions; Council not involved.
  - No clear requirements after conduct of TM: contractor to provide SG with “some” information.

- LTC recommendations may require further revisions, especially if ambition relating to objectives, scope, duration, etc. is increased during exploration – not difficult but requires political will.
  - Under PMT proposal, however, EIA process can be elaborated in the exploitation regulations as part of PoW.

Test mining report (study) and exemptions

- TM instrumental in relation to EIA/EMMP for exploitation.

- Test mining report – envisaged under both proposals:
  - DR 48 ter: information from exploration TM to be fed into EIA/EMMP and is to be submitted in a report with PoW application.
  - Dr 48 ter alt: information from PMT is to be submitted in a report to verify EIA/EMMP submitted with PoW application and required as part of permission for commercial production.
- Additional TM may be required under both proposals, e.g. “Material Change”.

- Exemptions: perhaps should be applied sparingly in the first few years/decades.
- When can TM exemptions be considered?
  - If there is sufficient in situ data / meets comparability requirements, AND
  - Technology/method has been demonstrated, including by contractor in question.
- Process for exemptions?
  - Role of LTC and Council.

Discussion points – 1

- Is requiring mandatory during TM legally possible?
  - Draft exploitation regulations do impose requirements for exploration contractors.
  - Aligns with Art. 145, evolutionary approach and precautionary approach.

- Question remains about scope, duration, mandatory nature, etc. of TM during exploration.
  - If not sufficient / satisfactory during exploration, then requiring contractors to do more during pre-commercial production (i.e. BEFORE granting permission to commercial production) may become necessary.

- Benefit in requiring more from exploratory TM for those wanting to move to exploitation:
  - More robust and accurate EIA based on reliable data.
  - Allows ISA to better evaluate the application AND the applicant – allows informed decisions from early on.
  - Facilitates ISA knowledge-building, e.g. setting and reviewing thresholds, standards, etc.

- BUT more upfront expenditure incurred for TM before PoW approval (and risk of rejection)
  - PMT may give more security but also comes with risk – permission to move to commercial production can be withheld or delayed.

Discussion points – 2

- TM / PMT approval and exemption processes?
- Suitable regulatory checkpoints before commercial production (e.g. “Material Change”)?
- TM / PMT links to other proposals:
  - Equipment and operational verification / certification process (technological readiness levels, TRLs) – NE in 2017 ((ISBA/23/C/5)
  - Validation monitoring.
- Caution: Important to not allow TM / PMT as a pretext for commercial operations
  - May be open to abuse if not stringently regulated and enforced.
  - TM / PMT requires strong safeguards (process, guarantees), strict reporting, closer inspection.

THANK YOU

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