

## Meeting of the Environmental Issues in Mine Action Working Group (EIMA)

7 December 2022

Hosted on Zoom

### Participants in attendance:

1. Linsey Cottrell (CEOBS) (Co-chair)
2. Lucy Pinches (Mine Action Review) (Co-chair)
3. Felicity Crotty (Royal Agricultural University, UK) - Presenter
4. Jennifer Risser (JMU)
5. Sera Koulabdara (Legacies of War)
6. Bach Bui (NPA)
7. Kristin Obrestad (NPA)
8. Rob Whilte (NPA)
9. Sarah Njeri (SOAS)

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## MINUTES

### Updates on environmental activities within organisations from attendees

Brief updates were given by:

- **MAR** – MAR attended the 20<sup>th</sup> MSP of Mine Ban Convention in November 2022, and included the environment in their plenary statement. This highlighted that the environment is not currently included in the Oslo Five Year Action Plan, that this needs to be addressed in the forthcoming 2024 Action Plan and that the environment requires greater consideration across the sector and the ‘treaty machinery’. MAR also met with the German Presidency to the 21<sup>st</sup> MSP and as part of other discussions, highlighted the importance of Germany creating the space for environmental considerations, and doing so before 2024 and development of the new Action Plan. Similarly highlighted in bilateral meetings with Switzerland.  
MAR’s Side Event presentation also included the environment, with questions from South Sudan and others. However, in general there was limited reference to the environment, except by some affected-countries. Definitely still more to be done on raising environmental awareness and getting more parties to include the environment in their statements. One aim for 2023 could be for a plenary session on the environment at the inter-sessionals. For the 20<sup>th</sup> MSP CEOBS and NPA did apply for a side event but were not given an ideal slot (Tues 9:30am) and decided not to take it. This possibly shows the environment has not yet been elevated as an issue for the Mine Ban Treaty. Resourcing has slowed progress, but the website for the EIMA working group is planned to be on-line for early 2023, with links to resources etc.
- **NPA** – Summary from NPA on their attendance at the joint ICRC/ARMAC Environment Workshop in Cambodia (24<sup>th</sup> - 25<sup>th</sup> Oct). A participate list is not yet available but included representatives from the major operators and each national authority. Positive and good topics covered. Presentations on day 1, following by discussion groups on day 2, which covered current policy, regulations, practices in place, what could be improved and what future support/capacity is needed. Positive feedback from Vietnam delegation, and important for awareness raising. No specific feedback from VNMAC to date. General impression that a repeat workshop in 2023 would be beneficial, especially given interest and activity on the environment in Vietnam, Cambodia and Lao.

- **CEOBS (General)** – Reconfirm that the ICRC/ARMAC Environment Workshop was a very positive initiative and that the outputs from the day 2 discussion are also relevant to other regions and not just specific to ASEAN. Other regions would also benefit from similar workshop sessions. Note: presentation slides and a summary of workshop discussions are available [here](#).

Other general updates from across the sector include two recent calls from GICHD including a Climate and Mine Action Study, which has been awarded and outputs likely in mid 2023 (proposed study [scope](#)) and one on Underwater Munitions (UM) within the humanitarian context. Although the UM [scope](#) does not specifically mention environmental issues, this will of course be an important consideration and likely referenced in the study outputs.

Further to the ICRC call and Nov deadline from on Armed Conflict and the Environment, CEOBS, NPA and Sarah Njeri at SOAS submitted an abstract, but await news on whether this was accepted.

With initial planning in July 2019, HALO have also just started an exciting initiative in El Salvador planting mangroves, which is based on HALO's employment model. Copy and paste the link to find out more: <https://www.flickr.com/photos/simongconway/sets/72177720303521145>

- **NPA (IMAS 07.13 update)** – IMAS Review Board met in 22 Nov and approved the terms of reference for the Working Group (WG) and 07.13 review. The WG have since met and established the scope (copied below), which includes both the consideration of climate risk and the positive contributions mine action can make to the environment.

*Draft scope text : This standard details the minimum requirements for environmental management of mine action operations, and the responsibilities of the national mine action authorities and mine action operators involved, to ensure that the environment is not degraded by mine action work and land is returned in a state that is appropriate for safe and sustainable use. This includes the consideration of climate risk, of the positive contribution mine action could make to addressing climate change and environmental degradation, the need for mine action programmes to adapt to meet the challenges posed by climate change and extreme weather events, compliance with National legislation, and the opportunity to support the climate resilience of communities. The standard does not provide guidance for supply chain monitoring or verification.*

Next steps to draft 07.13 revisions, aiming for led-authors to share first draft in early March 2023 for a review by other WG members. Also plan to write to a number of national authorities to establish a focus group, which can to feed into the documentation. It is a recognized challenge within by the Review Board to voices from national authorities, yet important for this topic area.

Dependent on timing for completion, noted it would be useful to include the 07.13 update in the 21 MSP. Current plan to also complete any TNMA in 2023, if possible. The 07.13 title is likely to be revised to reflect the updated scope. Support of the implementation of an updated 07.13 is also important.

## **Soil ecology/soil health – understanding soil health is more than remediation**

Presentation by Dr Felicity Crotty, Royal Agricultural University, UK. Presentation slides available [here](#).

A summary of the key points below:

1. Felicity's background in soil biology developed into soil health, which is a more understandable concept and applicable to agriculture
2. Soil is a non-renewable resource – taking about 100 years to produce 1cm of soil
3. Losses – which can occur through several mechanisms such as erosion, poor land management and conflict – can impact farming, food security and cause wider environmental impacts, such as nutrient cycling, water filtration and purification, soil biodiversity and carbon storage (e.g. UK soils store about 10 billion tonnes of carbon)
4. Soil is quite fragile and easy to degrade – compaction and erosion contribution to soil's ability to support agriculture
5. Estimated that around 33% of soils are degraded – poor management, as well as climate and extreme weather events impacting how land can be farmed effectively
6. Example from impacts from heavy metal contamination due to mining and mine water, exacerbated by climate change
7. Effect of conflict on soil includes large scale impact on soil structure, [bombturbation](#), and soil contamination although there is limited research on recent cases (focused on WWI/WWII craters)
8. Large scale damage by bombing similar to large scale erosion from flooding – example [Erfstadt](#), Germany in 2021

Before



After



9. Restoration 1-year on, has rendered the area much less usable for agriculture. Contamination with fuels also a problem – 1 litre of motor fuel can impact 3,784m<sup>2</sup> of soil making it [non-productive for farming and plant growth to up to 100 years](#)
10. Example from Ukraine-Russian war – important to restore soils to remove/manage contaminants and ensure it is a functioning system
11. Bare soil is more susceptible to erosion and compaction
12. Healthy soil indicators are broad – generally need to use a combination of different matrices
13. Soil is complex and provides a wide range of ecosystem services
14. Soil health – useful definition – 'continued capacity of a soil to function' BUT also acknowledging soil area a living ecosystem
15. Soil organisms are key to this – 1 hectare of arable soil has the equivalent of 3 tonnes of soil fauna
16. Earthworms are a useful and easy indicator of soil health – can increase crop yields by up to 25%
17. Globally, there are surprising patterns of earthworm biodiversity, with temperate regions having the greatest abundance and diversity. Climate change also risks adversely affecting this core function over time as soils warm up.
18. Soils are a 3-D habitat – different pore sizes, orders of magnitude of organisms, air-filled and water-filled pore spaces. Huge diversity of species, helping to drive the nutrient cycle

19. When restoring soils or filling in a bomb crater, this natural 3-D habitat and structure is lost. Can also impact how water infiltrates through the soil, potentially causing water logged and low functioning soils
20. Different soils types will behave differently – for example, clayey soils more prone to compaction and waterlogging . Free-draining sandy soils will be less prone to degradation. Black peaty soils in Ukraine have high organic carbon content and can be a fire risk when dry.  
<http://www.fao.org/soils-portal/data-hub/soil-maps-and-databases/regional-and-national-soil-maps-and-databases/en/>
21. Remediation may cover returning soil, reducing/removing contaminants, considering the pH (neutral soils have lower likelihood of plant uptake of metals) and adding plant cover
22. Restoration means considering the soil function, including structure, organic matter and soil biodiversity
23. Soil very easy to degrade and causes a spiral event – it is much easier to prevent loss/damage than to restore or remediate
24. Question asked: Is the any soil vulnerability mapping exists to highlight areas more prone to erosion etc? Response: World soil maps do exist showing areas of degradation and areas at greater risk but at high level/region mapping scale. On a country-level however, more limited and dependent on whether there is a soil regulatory service (e.g. US, Australia).
25. Question asked: Was the example for the flooding event in Germany and resulting erosion known to have also been an area impacted by cratering? Response: Not specifically, but may have been. Example however highlights the impact for even areas in crop, which is often perceived to reduce erosion risks.
26. Question asked: Impact of mine action on introducing soil contaminants often raised, but the impacts from compaction and soil structure may indeed be greater especially where machinery is used to increase clearance rates and is regarded as more efficient, and safer. What safeguards can be in place to better protect soils? Response: Soil type and timing of clearance will be important. During a dry summer, the risk of damage will be less and sandy soils will be less prone to damage than a heavy clay soil. Soil type however cannot be chosen. For example, the deep, black peaty soils of Ukraine are susceptible to compaction but their depth profile may mean they can be ploughed with subsoils to remediate compaction but this could exacerbate the problem.

### **EIMA Working Group – look back and review**

Comments or reflections on the working group were invited with the meeting invitation, with plans to touch on this during today's meeting. No comments have been yet received, but the plan is to cover this properly at the next EIMA meeting in February. Areas for discussion to include:

- what has been achieved over the previous 12 months
- reflection on the topics covered and depth of coverage (focus to date has been to introduce topics rather than drill down on detail)
- possible outputs and areas for focus in 2023
- frequency of meetings
- outreach and increasing engagement across the sector
- revisions to the terms of reference

Always the intention to rotate the meeting Chairs. Linsey at CEOBS happy to continue as Co-chair for 2023, but open to any nominations for another Co-chair to replace Lucy at NPA. Both recognise the benefit of sharing the role across different organisations. Please email [linsey@ceobs.org](mailto:linsey@ceobs.org) if you are interested.

## Events and points of interest

Other events and points of interests to note:

- COP 15 Biodiversity Conference started this week, <https://www.cbd.int/conferences/2021-2022>
- Survey deadline is **8 Dec** but the Geneva Peacebuilding Platform are asking for feedback around climate finance to conflict-affected areas, with UAE launching their COP28 Presidency in January 2023. Relevant where considering opportunities for mine action to support climate resilience and adaptation in affected communities. Survey is collecting ideas from organisations, and don't be too concerned if some of the questions asking for detail. Add any feedback to the survey [here](#)
- [NbS Unpacked Guidance](#) - publication on Guidance on Nature-based solutions in humanitarian contexts is due early 2023. The guidance will include practical guidance, policy recommendations, and advocacy messaging for NbS

## Any Other Business

No matters raised

## Date of next meeting

Next meeting **provisionally Wed 22<sup>nd</sup> Feb 2023**, at which it is proposed to hold as a hybrid and in-person meeting. Venue to be confirmed but likely to the UK (London or Manchester), and would be an extended session, allowing for review discussions and planning for 2023.

[A draft agenda is [here](#)].

Please add any further suggestions/comments or send them to [linsey@ceobs.org](mailto:linsey@ceobs.org)

## Useful links

Reminder to check the [Linkedin group](#), where other updates posted and a link to the [Google Drive](#) for other EIMA resources.