

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

28 June 2023, 12:00 – 13:00 CEST time

Hosted on Zoom

### Participants:

1. **Linsey Cottrell (Chair), CEOBS**
  2. **Jackie Evans (Guest presenter), ADAS**
  3. Alma Garcia, DCA
  4. Mark Wilkinson, DCA
  5. Elena Sevalles, Deminotec
  6. Christelle Mestre, GICHD
  7. Matthew Todd, HALO
  8. Ralph Legg, HALO
  9. Jennifer Risser, JMU
  10. Lucy Pinches, Mine Action Review (MAR)
  11. Bach Bui Doan, NPA
  12. Rob White, NPA
  13. Elizabeth Rolén, PM/WRA
  14. Henrique Garbino, Swedish Defense University
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## MINUTES

### Updates on environmental activities within organisations from attendees

Brief updates were given by:

- **Chair** – General updates of the EIMA working group, including announcement of the new website which went live in June, <https://environmentinmineaction.org/>. The website is a simple resource platform, including minutes of previous meetings and presentations, plus a link to useful references, datasets and tools. **Feedback is encouraged, as well as any recommended additions to the resource list.**

Mine action and the environment also received good coverage at both the APMBC intersessional meetings and the 26<sup>th</sup> NDM in June 2023.

APMBC intersessional meetings, plenary session: Green Implementation: Integrating Environmental Considerations in the Convention's implementation - Lucy Pinches represented the EIMA and joined on the panel by Germany and BiH.

APMBC intersessional meetings, side event: Mine action and in the environment in 2023 – IFRC's Nathalie Doswald on nature-based solutions and examples of practices by EIMA members including Apopo, HALO and NPA.

**Side event recording is available: see <https://environmentinmineaction.org/pages/resources>**  
[Watch from 20 minutes in due to delay in the start]

26th NDM, plenary session: Mine Action, Climate and the Environment – Chaired by MAR (Lucy Pinches), with NPA's Kristin Obrestad representing the EIMA, and joined on the panel by PM/WRA, BiH, and UNMAS.

Overall impression of a positive focus and increased attention on the mine action and the environment.

- **MAR** – Similarly positive impressive of climate and the environment’s profile during the APMBC and NDM week, with good feedback following both sessions and some State Parties expressing a commitment to get the environment included into the Oslo Action Plan revision next year and Germany keen to see this reflected in the MSP documentation. One State Party also thought that the environment should become a fixed agenda for every Treaty meeting given its importance. LP to check whether recordings of the Intersessional Meetings are available and if so, will post on the EIMA website. [Post meeting note: side event recording and slides on website - <https://environmentinmineaction.org/pages/resources>]. Also encourage feedback on the first iteration of the new website and provide any links to resources not already covered. It is the plan to strengthen the website, including possible thematic pages to help support further advocacy and awareness raising.
- **NPA** – Update from Rob White on the IMAS Review Board and the revisions to IMAS 07.13 which will have the new title of **Environmental Management and Climate Change in Mine Action**, which will aim to be as clear and concise as possible, with new definitions relating to climate. Positive feedback has been received from each National Mine Action Authorities approached, and all requested a supporting Technical Note (TNMA). The TNMA will include the detail for implementation and directions to other resource materials. Draft of TNMA expected to be completed by Oct 2023. Plan to launch the updated IMAS 07.13 and new TNMA together. TNMA drafting should seek to incorporate external expertise and support beyond mine action, with inputs from climate and environmental specialists welcomed, but maintaining a mine action remit.
- **General** – reminder about EHAN, the [Environment and Humanitarian Action Network](#) and Chair asked whether any other members join their meetings. CEOs aim to join most meetings but this is not always possible and it would be useful if we could rotate attendance and share updates. Please let [linsey@ceobs.org](mailto:linsey@ceobs.org) know if you attend or plan to attend future EHAN meetings.

## Management considerations for (chemically) contaminated land

Presentation by [Jackie Evans](#), Agriculture and Land Management Managing Director at ADAS – covering land management options for areas with chemical contamination - such as metals. Presentation slides available on the EIMA website.

A summary of the key points below:

1. Globally there are many different types and different legal definitions of contaminated land, and in this context it is land which could cause significant harm to people, property or protected species, or cause significant pollution of surface waters or groundwater.
2. Contamination can arise from the use of explosive weapons, plus debris as a result of a conflict and include heavy metals, solvents, oils as well as radioactive materials.
3. Contaminants may be present in soils, and present a risk to polluting water and water courses, but can also be transported as windblown dust.
4. Example from Ukraine, intended targets and associated contamination but also other consequences such as contamination from floodwaters arising from the destruction of the dam.
5. Remediation would aim to restore land to its original state or to an acceptable condition. Some countries have remediation standards for restoration, but others do not.
6. Huge range of remediation options available and selection highly dependent on budget, knowledge and resources. Slides provided of an example of a remediation project of UK site contaminated with explosives.

7. Remediation can be extremely expensive.
8. For agriculture and horticulture, soil is integral to the 'food web'. Contaminants can enter into food web: soil - to plants - to animals - to humans. Some elements – such as copper – also important as for plant growth (micronutrient).
9. pH levels (acidity/alkalinity) a useful baseline indicator of soil use options, with plant growth limited to a limited pH band. Also cheap and simple analysis technique.
10. pH can also be used to stabilise contaminants in soil.
11. UK examples of contaminated sites – despite being a highly regulated country serious environmental issues can still arise. For conflict affected countries the level of contamination will be unknown and its effects will be unknown.
12. Contaminants will have a range of effects and levels of risk – some very toxic whilst others will have only a mild effect.
13. Contaminants may kill some plants, and therefore unavailable through plant uptake but ruminant animals typically ingest soil whilst grazing. This means contaminants in soils can still be ingested by grazing animals, causing a detrimental effect.
14. For future use, consider a hierarchy of options – e.g. consider growing non-food crops (such as miscanthus grass for fuel or thatching) for heavily contaminated sites, followed by crops for livestock, and crops for human consumption.
15. Options available to manage contaminated sites, including establishing a close-knit sward [grass/vegetation] which reduces the risk of soil ingestion through grazing and encouraging any food crops to be washed or peeled before consumption. Contaminants typically concentrated around the outer surface of crops/vegetables.
16. Other land management options will depend on the nature of farming/agricultural practices and some will not be directly relevant for more subsistence farming practices. Options include maintaining suitable stock densities, secure fencing, alternate water supply (piped), moving livestock if signs of damage, and having stock-free periods
17. Stock on wet ground can cause 'poaching', which can lead to more soil ingestion for certain livestock.
18. When cutting forage, any machinery used must be calibrated at the right height to minimise soil disturbance and if fertilisers are applied, soil should ideally be tested to ensure application rates are limited and set correctly.
19. Risk dependent on soil ingestion rates and levels of potentially toxic element (PTE) in that soil, yet measures can be put in place to reduce such risks.
20. Discussion and Qs raised:
  - Useful to highlight the low-cost monitoring techniques available (such as pH) as an indicator
  - Contamination will not always be visually evident – may see some stunted growth of plants or livestock not breeding. Contaminants can accumulate in organs over time, leading to organ failure and death. Where human diets reliant on a single food source (e.g. poultry), higher risk of accumulating significant concentrations in the human food chain without necessarily seeing an effect on the animals themselves.
  - Other than pH, examples of rapid on-site testing techniques are limited. Hand texturing could qualitatively indicate a soil's organic content which is needed for plant growth (i.e. sandy, loamy, clayey) but this gives no detail on any contaminants present.
  - Topic really highlights the limited data that is currently available and that sampling has not been widely done to understand the potential risks in terms of mine action.
  - Key contaminants linked to use of munitions will be metals and petrochemicals, and laboratory testing can be expensive. Hand-held XRF analysers can be used to measure a wide range of metals in soil but they are also expensive. Explosive residues – such as TNT and RDX are toxic – and can also be tested for using colorimetric screening techniques (as developed by the US Army Corps). These colorimetric tests however are qualitative only (presence/absence) and can give false positives, e.g. if nitrogen-based fertilisers are present.
  - Field data remains limited and collecting is typically cost prohibitive. NPA pilot in Vietnam however demonstrated field sampling protocols that can be implemented.

- In Ukraine, FSD has [announced partnership with FAO](#) with soil samples proposed in agricultural areas.
- Several options available through commercial laboratories, including UK, US and Europe. Work by FAO and [INSOP](#) (International Network on Soil Pollution), includes developing standardised methodologies and laboratory networks - Post meeting note: see [GLOSOLAN](#) on laboratory networks.

## Events and points of interest

- Recent JCWD articles of interest including:

### JCWD **Volume 27, Issue 1 (Winter 2023)**

1. When a Safety Measure Becomes a Risk Accelerant: Removing the Option to Blast-In-Place When Clearing Explosive Remnants of War - <https://tinyurl.com/23etw2uj>
2. Inspiring the Next Generation of Humanitarian Mine Action Researchers – **includes reference to environmental needs** <https://tinyurl.com/yxu2v2ac>

### JCWD **Volume 27, Issue 2 (Summer 2023)**

3. Environmental Mainstreaming in Mine Action: A Case Study of Moving Beyond "Do No Harm" - <https://tinyurl.com/24ac6vhk>
4. Mine Action and Food Security: The Complexities of Clearing Ukraine's Agricultural Lands - <https://tinyurl.com/yc89nbfb>

- [GICHD Innovation Conference](#), 14 to 16 of November 2023. Deadline 31 July. Initial indication that the environment will be included. Innovation Finance listed as one theme, and noted it could be useful to get a speaker for the **next EIMA meeting on climate finance** and how this could link with mine action as background prior to the GICHD IC.

## Any other business

- Deminotec had kindly indicated they could present at the next EIMA meeting on environmental management within their commercial organization. CEOBS to follow-up with Deminotec to rearrange.
- CEOBS happy to continue but any volunteers interested in chairing or co-chairing future meeting please inform [linsey@ceobs.org](mailto:linsey@ceobs.org). Intention to rotate chair to allow other organization to share the role.
- UN Disaster Risk Reduction (UNDDR) newsletter subscription and alerts here: [subscribe Prevention updates](#)

## Date of next meeting

- Wed 6 September, 12:00-13:00 CET, online [**Note: amended from proposed date given in meeting due to diary clashes**].

[A draft agenda is [here](#)]. Please add any further suggestions/comments to [linsey@ceobs.org](mailto:linsey@ceobs.org)

NOTE: LinkedIn group – search for **Environmental issues and mine action**