

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

23 March 2022

Hosted on Zoom

### Participants in attendance:

1. Linsey Cottrell (CEOBS) (Co-chair)
2. Lucy Pinches (Mine Action Review) (Co-chair)
3. Valentine Nzengung (MuniRem) – Presenter
4. Christelle Mestre (GICHD)
5. Andrew Scanlon (HALO)
6. Miguel Pacheco (HI)
7. Audrey Torrecilla (ICBL)
8. Kiona Bolt (ICRC)
9. Martin Jebens (ICRC)
10. William Bagley (JHU)
11. Jennifer Risser (JMU)
12. Roxana Bobolicu (MAG)
13. Bach Bui (NPA)
14. Chakreya Bout (NPA)
15. Hilde Jørgensen (NPA)
16. Rob White (NPA)
17. Carlie Stowe (PeaceTrees)
18. Lily Gates (WRA)
19. Camille Edwards (WRA)

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## MINUTES

### Updates on environmental activities within organisations from attendees

Brief updates were given by:

**ICRC** – ICRC work in Cambodia has involved promoting the environmental agenda in mine action, including advocacy on climate change adaptation measures and sharing articles.

**NPA, Head office** – NPA have shared their Environment Assessment and Management tool for office and administration activities across their country programmes to map environmental issues across regions. The tool asks for carbon emission data and the results are being collated and reviewed. NPA have also signed the [Climate and Environment Charter for Humanitarian Organisations](#) and now looking to develop and submit concrete targets to work towards. NPA have also begun to review possible revisions to IMAS 07.13 and begin discussions with the IMAS Review Board around climate and carbon emission reductions.

**NPA, Vietnam** – NPA have completed a pilot soil sampling project, which examined heavy metal contamination, as well as soil nutrients. The results were not fully conclusive given the nature of the sampling site (e.g. sandy soils) but identified localized elevated zinc concentrations. NPA plan to deploy the sampling exercise at other sites, including other provinces as NPA's environmental work extends this year.

**GICHD** – GICHD are now examining how their own environmental footprint can be reduced, and has joined the Swiss [2050 Today](#) initiative together with other major NGOs in Geneva, with an initial focus on business travel and working groups. An update will be given at the next EIMA meeting.

**MAR** – MAR joined a German Federal Foreign Office (GFFO) presentation in March on their new Mine Action Strategy 2022-2023. Germany highlighted to their stakeholders that the environment was key, in terms of impact and adaptation for climate change. Publication of the strategy is pending. MAR has also made initial progress in setting up an EIMA dedicated website – NPA are able to host the website with an independent url, so this will not be ‘badged’ as a NPA site. Aim to have an independent website to provide information around this working group, together with useful resources and materials on the environment for the mine action sector. Currently plan to include the ToR, minutes and presentation material, as well as links to useful resources and tools. One consideration for the EIMA group is whether there is agreement to have all member organisations listed on the website for transparency or where this may restrict participation. Initial thoughts are that listing organisations is beneficial. Aim is to have this launched for the NDM in June.

### **Presentation – MuniRem. Alternatives to Open Burning and Open Detonation of Energetic Hazardous Waste**

Copy of the presentation by Dr Valentine Nzungu at MuniRem is [here](#).

Dr Nzungu is a Professor at the University of Georgia and has 30 years in green remediation technologies and an expert on WMDs and hazardous waste disposal, including energetic compounds.

Key points raised:

1. This OBOD alternative disposal option focuses on a chemistry-based approach to treating energetic materials.
2. The commercialized reagent – MuniRem – is a powder, which when added to water can neutralize explosives (via reduction) to form non-hazardous waste and stabilize metals as insoluble sulfides. For propellants, an organic solvent is needed since these are not water soluble.
3. For explosives, end products are principally nitrogen, carbon dioxide and sulphates, with small quantities of nitrite, formate and acetate.
4. Reagent is packaged in various sizes and complying to UN requirements for a hazardous material - since reagent can ignite.
5. Versatility of application – has included military, commercial and improvised explosives in demilitarization, decontamination and remediation (soil, groundwater and wastewater) application
6. Case study examples presented:  
Case study 1, recovery of bulk energetics which requires use of water jet/water saw/milling etc to access the bulk explosives. Solution can be used to neutralize the energetic material and decontaminate casings. Treatment time given as 30 minutes for 4.5 kg of bulk explosives. Effluent wastewater target – 2 parts per million.  
Case study 2, destruction of dynamite and treatment of highly unstable nitroglycerine. Traditional treatment to open burn. MuniRem treatment involves external spraying to neutralize NG, which then allows handling and further treatment.
7. Reagent has also been applied for recovered underwater munitions, allowing treatment and recycling of casings.
8. Equipment developed (SRI & ARA Inc) to enable remote breaching of shell and reagent injection.
9. MuniRem has also been tilled into soil as part of soil remediation.

10. MuniRem has been applied in humanitarian context, including current work in Bosnia and pending underwater explosive work in Germany and the Netherlands.
11. Application is viable within tropical and colder environments, often performing better in warmer climates.
12. This technology was not developed as part the Strategic Environmental Research and Development Programme and the Environmental Security Technology Certification Programme (ESTCP) in the US DOD. The technology development was university-led, with DOD funding for the initial demonstrations to indicate efficacy at field-scale and proof of concept. It has been applied at a number of army facilities and training provided.
13. Use of reagent means that secondary charges for OD not required. Salt or fresh water can be used.

Any further questions, please do contact [vnzengung@munirem.com](mailto:vnzengung@munirem.com)

### **Environmental outreach plans for EIMA WG**

CEOBS are now a member of the Global Network for Civil Society Organisations for Disaster Reduction - [GNDR](#) – and this may prove a useful network for mine action organisations to connect with in-country environmental organisations working in climate change adaptation and risk reduction. Joining allows members to connect to other organisations through the network platform.

GNDR was set up in 2007 and has over 1,200 organisations across 120 countries. GNDR provides a useful tools and guidance e.g. on strengthening collaboration, partnering policies, partnering agreements, and adding value to partnerships.

Critically, GNDR have received funding and have just began a project on ‘Localised Climate Projections’. This may be useful to help support mine action programmes in understanding and managing local climate risks.

GNDR were not available to join this EIMA meeting but have indicated that they would be interested to join a future meeting to explain more about the network and the opportunities it may provide for the HMA sector.

### **Side Event – NDM, 23-24 June 2022**

The agenda has not yet been set by UNMAS but it was encouraging to see environment suggested as a topic area in the outreach survey. Plan is to apply for an EIMA Working group side event – an invitation for nominations has not yet been circulated but is likely to be soon.

Initial suggestion to have a multiple panel: representative from the EIMA to explain the purpose of the group and the new website; an operator; a donor and their perspective on the environment; and an affected country.

Suggestions from the floor to include: climate change since relationship with mine action is not yet fully appreciated; underwater munitions – Terrance Long (possible contributor); ecosystems and nature-based systems since HMA has a potential to be much more agile than other humanitarian sectors and to include biodiversity rather than pure climate focus. This makes sense since many areas where HMA operates are among the most biodiverse areas in the world.

Another suggestion to give an overview of all the initiatives which have been happening by different organisations and the progress to date in order to inspire others. Would be good to keep the

presentations to those from within EIMA rather than hand over to others. This may be the better approach so that a broad range of topics can be introduced within the hour session.

There could be future opportunities to run a longer event on mine action and the environment – similar to the GICHD and ICRC online seminar event on innovation and AI technologies – to explore topic area in more detail.

Should also keep in mind forthcoming COP15 Biodiversity Conference and COP27 Climate Change Conference.

HALO also looking at an opportunity to run a side event at the European Development Day with CEOBS in June.

An outline for the NDM side event will be drafted – please contact [LucyP@npaid.org](mailto:LucyP@npaid.org) or [linsey@ceobs.org](mailto:linsey@ceobs.org) if you'd like to be involved.

## **Other information**

### ***Survey – Land release***

An early idea was to use the EIMA group as a platform to circulate surveys and collate feedback on certain issues/areas of interest. A current topic of interest is land release and it would be useful to better understand the extent to which impact assessments are carried out.

If you can, please complete and circulate to colleagues this short survey - a brief explanation included in the survey:

<https://docs.google.com/forms/d/1jy0bWchEJvvlOtfpXmL18u44lqxcRTAfcdmn3VQEK7c/edit#responses>

The plan will be to share the results with the EIMA group and then consider any next steps.

### ***Next round of consultations on EWIPA political declaration***

For your information, CEOBS have been developing a statement on EWIPA and the environmental impacts to be delivered at the [next round of the consultations](#) – 6<sup>th</sup>- 8<sup>th</sup> April 2022. Contact [linsey@ceobs.org](mailto:linsey@ceobs.org) if your organisation would also wish to be included. [Post meeting note: statement supported by CEOBS/Harvard Law School's International Human Rights Clinic/NPA/PAX/WILFP/Zoï Environment Network, as of 1/4/22]

### ***Next meeting topic***

In addition to GNDR, we will also approach USAID about their climate risk assessment tools and guidance which they have developed.

### ***Useful links***

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

## **Date of next meeting**

Next meeting **Wed 25<sup>th</sup> May 2022, 12pm CET**. A link to register link is to follow.

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

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