MINE ACTION AND THE ENVIRONMENT
TIME FOR A REVIEW?
Current Mine Action Environmental Standards.

- “The standard do not enforce specific practical mitigation measures but is a framework giving the tools for the NMAA to define these.”
- The work of defining these practical mitigation measures largely remains to be done.
Small Arms Ammunition

- Probably the most common item of EO destroyed by count and weight.
- Often burnt in improvised burning tanks or pits with the residue buried.
- Are we aware of the potential environmental impact?
- European Waste catalogue classifies as Toxic Solid UN 6.1
HMTA -(W-Ni-Fe and W-Ni-Co)

• Heavy Metal Tungsten Alloys, typically used for kinetic energy penetrators is now deemed to present a greater potential threat than Depleted Uranium.

• The issue is the alloy. For example cobalt is a carcinogen even at low levels (Class 2A).

• SAA containing DU and HMTA alloys (W-Ni-Fe and W-Ni-Co) should not be incinerated.
OBOD

- Both NAMSA and the NSPA will not allow OBOD when contracting stockpile destruction.
- The EU no longer permits large scale OBOD to be conducted by member states. Directive 75/442/EEC and 91/689 – waivers are allowed.
INSENSITIVE MUNITIONS

- Increasing proportion of ordnance over coming years will be insensitive munitions.
- Energetic formulations containing DNAN, NTO and Ammonium Perchlorate (AP).
- In Canada ammunition containing AP is not permitted for use on ranges.
Pollutant Linkage Model
SUMMARY

• HMA has much to learn on the issue of toxic residues from explosive ordnance.
• Range management in many countries is already relatively well advanced on these issues.
• HMA may look to catch up.
• DO NO HARM.
• Show ALL REASONABLE EFFORT.