NATO Trust Fund projects have provided in Jordan a modern demilitarisation centre and an initial propellant surveillance testing capability. Far away from the encroachment of city housing, a new demilitarisation centre was constructed to NATO safeguarding rules and distances in a desert zone. Through initial propellant testing the safety conditions for stockpile demilitarisation have improved significantly and a baseline has been recorded for all propellants.

Due to historical legacy, gifting and assistance programmes to Jordan, ammunition data upon which management decisions can be made is not commonly available. Decisions to prioritise destruction are usually based upon a calculation between at least two data sets and may involve testing a number of components. An appropriate range of tests and results are therefore necessary to enable strategic stockpile decisions on demilitarisation.

Ammunition dismantling allows for an efficient and effective remove and demilitarisation of ammunition. Explosives may be subsequently destroyed but materials, mostly metals, can be recovered for scrap recycling. While destruction by burning or demolition has no revenue return, it is appropriate that revenue from recoverable and saleable materials should off-set the dismantling and demilitarisation costs.

The project is to set the conditions for a self-sustaining Jordanian ammunition demilitarisation capacity. The following three initiatives will be implemented over 24 months period:

1. Demilitarisation Centre. Through the development of procedures and accreditation, the project will support HQ Ammunition Command to provide the frameworks and tools to sustainably manage and conduct demilitarisation. This will include environmental management and resource planning.

2. Propellant Surveillance. The project will provide additional test equipment capacity for analysing legacy ammunition systems and will support accreditation as an international laboratory. Support will also be given for Jordan’s involvement in NATO Ammunition Safety Group activities.

3. Destruction and Recycling. The project will support destruction of 240 gross tonnes of ammunition identified as unsuitable for service and as a priority through testing. The process will also trial recycling and recovery to maximise returned revenue to resource this and future demilitarisation activities.

This proposal is the finalisation of a capability to manage Jordan’s ammunition stockpile and to identify and prioritise aged and obsolete stocks for demilitarisation. The capability provides a lead in technical support available to regional demilitarisation through bilateral services to Allies, Partners or advice to NGOs working in areas of conflict.

The project has an estimated budget of EUR 1,300,000.
Package 1 – Demilitarisation Centre

The project will support the continuing professionalisation of the Demilitarisation Centre (DC) through the process of accreditation to ISO 9001 Quality Management and ISO 14001 Environmental Management. This includes establishing a testing and monitoring regime for identified air polluting substances and area contamination from incinerator emissions as part of a system of Integrated Pollution Prevention and Control (IPPC). This will utilise international best practice and an exchange of experiences with commercial and military operated industries.

Package 2 – Propellant Surveillance

Gun propellants contain considerable stored chemical energy and are stabilised with additional compounds that neutralise reactions allowing long and safe storage. Over time stabilisers are lost through surface leaching, a process accelerated by hot climates. Through the Propellant Surveillance Laboratory (PSL), tests have now been conducted on nearly 2000 samples to determine the remaining effective stabiliser. The PSL now contributes and influences strategic stockpile decisions and is critical to the identification of ageing stocks and the planning priorities for demilitarisation. Regionally the services can also provide surveillance tests and informed analysis for Gulf Allies and to support NGOs working to prioritise PSSM programmes in logistic stockpile or conflict reduction. The project will leverage NATO expertise and contractors to support the continuing development of the ammunition surveillance capability through:

- Developing a strategic surveillance policy for the through-life sampling and management of ammunition. Criteria for each test result will be developed for ammunition performance and end-of-life planning. This will enable tests results to be used decisively in prioritising for destruction.
- Initial accreditation to ISO/IEC 17025 for competence of testing and calibration laboratories certification. This will provide confidence in the technical competence of the PSL and global conformity for mutually acceptable test results under the International Laboratory Accreditation Cooperation.
- Introducing a data logging system to record the temperature exposure of ammunition stocks during storage and deployment. This will enable a quick visual identification for stocks exposed to extreme parameters and those requiring further surveillance assessment for safety and disposal.
- Enhancing the range of NATO ammunition test capabilities through the provision of appropriate additional energetics sensitivity test equipment.

Package 3 – Demilitarisation and Recycling

The project will support the demilitarisation of 240 gross tonnes of ammunition identified through testing as a priority with additional stock selected to develop procedures and experience. Recycling and recovery will also be trialled to maximise returned revenue to resource future demilitarisation activities. The recycling of recovered metals will be through existing scrap arrangements where tonnage shall be recorded and the value off-set to the costs. The recovery and recycling of explosives for civil purposes in quarrying for construction materials shall be investigated.

For further information

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