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Humanitarian Demining toolbox

What’s in the toolbox

1) Advanced General Survey
tools to help setting priorities among the affected areas, using remote sensing, contextual data, expert knowledge and GIS analysis.

2) Non-Technical Survey
tools to support Suspected Hazardous Area (SHA) assessment and delimitation using remote sensing, contextual data, expert knowledge and GIS analysis.

3) Technical Survey
tools to detect indicators of probable presence of landmines/UXOs.

4) Stand-off Detection
tools to detect mines, submunitions or explosives at close range with remotely controlled Micro (Unmanned) Aerial Vehicles (MAV/UAV), remote controlled ground platforms (UGV) or flying biosensors (honeybees).

5) Ground-based Close-in Detection
tools such as advanced metal detectors, ground penetrating radars and novel chemical sensors.

6) Disposal of ERW (Explosive Remnants of War)
tools to protect deminers or vehicles against explosions.

7) Mine Risk Education
tools to assist in Mine Risk Education activities.

8) Training
tools aiming at developing capacity building and enabling the user uptake of the tools developed.

9) Mine Action mission management
tools to improve planning and execution of Mine Action missions.

10) Standards
this module includes the current and in-progress or proposed CEN Workshop Agreements (CWA).

Introducing the toolbox

TIRAMISU (Toolbox Implementation for Removal of Anti-Personnel Mines, Submunitions and UXOs) will develop a set of advanced tools for Humanitarian Demining. These tools will be designed and tested on the field with the help of International demining experts. The toolbox will benefit all the Humanitarian Demining operators allowing for a faster, safer and more precise decontamination of Mine- and UXO-polluted area.

ALIS dual sensor detector

The Tohoku University (Japan), partner of the TIRAMISU consortium, is developing a new handheld land mine dual sensor/detector (ALIS) which is equipped with both a metal detector and a ground-penetrating radar (GPR). The most unique feature of ALIS is its capability to visualise the readings of the two sensors on a LCD screen. Operators can easily compare data coming from the two devices thus drastically reducing the time to detect mines and improving the deminer efficiency. Audio alerts are also available for the metal detector unit.

ALIS prototypes are already being tested and used in mine-affected countries such as Croatia and Cambodia since 2006.

Operations in real mine fields in Cambodia started in 2009, since then ALIS has detected more than 80 anti-personnel mines.