United Nations Mine Action in Ukraine

Tuesday 24th Oct 2023 – MASG - NYC
According to authorities, 175,000 sq. km of Ukraine’s territory has been affected by war and may be contaminated with landmines and explosive ordnances.
Is the glass half full or half empty in Mine Action Ukraine?

1) Vision
2) Revised National Strategy is being Developed
3) National Standards are being updated
4) Sector Working Group (SWG) now functioning
5) Outcome driven prioritization being developed
6) Risk management approach being adopted
7) New technology being adopted – particularly in information systems management and the use of robotics/UAV.
8) Developing outcome driven concept notes for equipment requests
Two approaches Required:

The Need for Outcome driven high impact demining NOT Output focused demining.

*Why is the task a priority, what will be the positive outcomes achieved or negative outcomes avoided by undertaking this task at this time! How does clearing this task help Ukraine.*

Adoption of a risk management approach not everything can be done immediately with no current or residual risk.

*There are still incidents involving UXO in western Europe form WWI and II*
Ukraine has two mine action problems **not** one:

The actual contamination from the detritus of war: Mine, UXO and other explosive contamination – probably the worst seen in Europe since the end of the second world war! This will require extensive clearance operations conducted to international/Ukrainian standards.

The areas of land that areas suspected of being contaminated (primarily as a result of being occupied by Russian forces) that actually has no contamination and there is no evidence of contamination, but the perception is that it might be dangerous. This will require Innovative solutions and adoption of a risk management approach to mine action in Ukraine until land is confirmed as being contaminated or no evidence of mines is accepted.
<table>
<thead>
<tr>
<th>Cost</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>Satellite Remote Assessment</td>
</tr>
<tr>
<td>$$</td>
<td>Visual Drone Remote assessment</td>
</tr>
<tr>
<td>$$$</td>
<td>Technical Survey with Drones</td>
</tr>
<tr>
<td>$$$$</td>
<td>Non Technical Survey Rural</td>
</tr>
<tr>
<td>$$$$$</td>
<td>Technical Survey with Rollers</td>
</tr>
<tr>
<td>$$$$</td>
<td>Technical Survey with Dogs</td>
</tr>
<tr>
<td>$$$$$</td>
<td>Technical Survey with Flail/Tiller</td>
</tr>
<tr>
<td>$$$$$$</td>
<td>Technical Survey with Manual Teams</td>
</tr>
<tr>
<td>$$$$$$</td>
<td>Manual Land Release</td>
</tr>
</tbody>
</table>
Impact & Innovation

United Nations Mine Action in Ukraine | Tuesday 24th October 2023
How can the UN assist Ukraine in Mine Action:

• Support Development of National Strategy
• Development of National Standards
• Development and Provision of Technical expertise particularly on Skills and Equipment needed
• Development of Train the Trainer training packages
• Development of Risk management approach with regard to the management and mitigation of explosive hazards
• Support effective Quality Management Processes
• Improve quality and relevance of requests for support – context driven concept notes
• Improved Information management and data integration for allocation of resources, prioritization and measurement of impact.
• Reduce bureaucracy and identify conflicting legislation
• Support the creation of mine action service market place
• Support the development of innovative finance mechanisms

Coherence/Prioritization/Resource Management
Effective Use of Information Management Will Allow improved:

Land assessment and release

i. Unified linked data model
ii. Real-time land status reporting
iii. Open data standards for data sharing
iv. Data governance and security
v. Land status detection and hazard alerts
vi. Scenario modelling for demining metrics
vii. Estimating impact of operator prioritization

Region prioritisation

i. Combine multiple data streams for accurate hazard evaluation
ii. Alert critical infrastructure status based on real-time data
iii. Share prioritization data across operators
iv. Automate risk management considering economic and societal impacts
v. Estimate demining time based on various factors and local infrastructure
vi. Securely share demining information between central and local government
The One UN approach in mine action in Ukraine pursues four impacts intended to capture the different strategic and long-term aims of the sector and strive for increased peace and human security, and support towards development in Ukraine - the common vision drawn from mine action global sector-wide Theory of Change (ToC).

1. Ukraine’s strategic objectives supported, and relevant treaty obligations met.
2. Increased community resilience to conflict drivers, contributes to stability and peacebuilding.
3. Economic development and more resilient communities contribute to Sustainable Development Goals (SDGs).
4. Safer communities and reduced deaths and injuries from mines and explosive remnants of war (ERW).
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Options for Financing Mine Action in Ukraine

- Traditional Grants – from Governments
- Grants from Foundations & Corporate Social responsibility projects
- Grants from IFI

Innovative Financing:

- Front loading and loans
- First Risk Mortgages/Loans
- Development Bonds
- Ensuring Liquidity in the reinsurance markets
- Delayed coupon or zero coupon bonds for critical infrastructure and agriculture
- Energy Bonds
- Green Bonds
- Compensation to keep farmers on the land
Equipment needs of the state demining agencies of Ukraine

State Emergency Service
National Police EOD
State Special Transport Service
State Emergency Service of Ukraine (SESU)

Expected outputs / expected results:

1) Increasing the level of safety of the population against explosive objects.
2) Increasing the rate of demining via the implementation of new methods.
3) Life, health and property of citizens are preserved.
4) Restoration of the economic potential of de-occupied territories.

Expected outcomes / expected effect:

1) Positive economic, social and environmental impacts on de-occupied territories.
2) Increase in demined territories due to the involvement of Ukrainian and foreign companies.
3) Restoration of infrastructure
State Emergency Service of Ukraine (SESU)

EQUIPING STATUS / СТАТУС ОСНАЩЕННЯ
List of the main operational equipment of pyrotechnic units / Перелік основного оперативного обладнання піротехнічних підрозділів
(Available q-qy/Shortage)

<table>
<thead>
<tr>
<th>ZASOBY BRONEZHAIISTU:</th>
<th>ZASOBY POSHUHU:</th>
<th>ZABEZEPECZNA RObIT:</th>
<th>TECNIKA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Available q-qy/ Shortage)</td>
<td>(Available q-qy/ Shortage)</td>
<td>(Available q-qy/ Shortage)</td>
<td>(Available q-qy/ Shortage)</td>
</tr>
<tr>
<td><strong>Окуляри захисні (балистичні):</strong> 948/643</td>
<td><strong>Металодетектори до 0.6 м:</strong> 1099/439</td>
<td><strong>Аптечка індивідуальна:</strong> 1089/455</td>
<td><strong>Броньовані автомобілі (для персоналу):</strong> 236/60</td>
</tr>
<tr>
<td><strong>Захисні наколінники та напікітники:</strong> 1085/500</td>
<td><strong>Металодетектори до 3 м:</strong> 103/352</td>
<td><strong>Радіостанція автомобільна:</strong> 183/329</td>
<td><strong>Легкий броньований автомобіль (для ВНП):</strong> 101/117</td>
</tr>
<tr>
<td><strong>Вибухозахисний костюм:</strong> 100/149</td>
<td><strong>Металодетектори до 6 м:</strong> 51/192</td>
<td><strong>Підпірна машинка:</strong> 231/202</td>
<td><strong>Важкий вантажний броньований автомобіль (для ВНП):</strong> 86/118</td>
</tr>
<tr>
<td><strong>Квадрокоптер:</strong> 94/148</td>
<td></td>
<td><strong>Груповий комплект забезпечення робіт:</strong> 49/179</td>
<td><strong>Машиня з механізованого розміщення:</strong> 15/45</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Індивідуальний комплект сапера:</strong> 251/1123</td>
<td><strong>Роботизований комплекс:</strong> 9/191</td>
</tr>
</tbody>
</table>

UNITED NATIONS DEVELOPMENT PROGRAMME
National Police of Ukraine EOD units

Expected outputs:

1) Improving the level of equipment of Police EOD units.
2) Increasing the effectiveness of operational response and clearing areas of explosive objects.

Expected outcomes:

1) Reducing the social, economic and environmental impact of explosive objects on the life and activities of the population.
2) Reducing the number of incidents of death/injury from explosive devices.
3) Reducing the level of threats from explosive objects on the territory of Ukraine.
# National Police of Ukraine EOD units

## List of main operational equipment / Перелік основного оперативного обладнання

<table>
<thead>
<tr>
<th>#</th>
<th>Name / Назва</th>
<th>Available q-ty / В наявності</th>
<th>Shortage / Нестача</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vehicles / Автомобілі</td>
<td>87</td>
<td>53</td>
</tr>
<tr>
<td>2</td>
<td>Detecting systems / Системи пошуку</td>
<td>165</td>
<td>295</td>
</tr>
<tr>
<td>3</td>
<td>PPE / Засоби індивідуального захисту</td>
<td>360</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Communication means / Засоби зв'язку</td>
<td>200</td>
<td>260</td>
</tr>
<tr>
<td>5</td>
<td>Demining (EOD) tools / Комплекти з розминування</td>
<td>104</td>
<td>356</td>
</tr>
<tr>
<td>6</td>
<td>Navigation means / Засоби орієнтування</td>
<td>25</td>
<td>435</td>
</tr>
<tr>
<td>7</td>
<td>Medical / Медичне обладнання</td>
<td>260</td>
<td>460</td>
</tr>
</tbody>
</table>

## List of additional needs of EOD Service / Перелік потреб в обладнанні вибухотехнічної служби

<table>
<thead>
<tr>
<th>#</th>
<th>Name / Назва</th>
<th>q-ty / кількість</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Armored Vehicles / Броньовані автомобілі</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>Off-road minibus / Мікроавтобус підвищеної прохідності</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>Truck for transporting mechanized demining machines and other equipment / Вантажний автомобіль для перевезення машин механізованого розминування та іншої техніки</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Heavy bomb suits / Важкий вибухозахисний костюм</td>
<td>52</td>
</tr>
<tr>
<td>5</td>
<td>Light bomb suits / Легкий вибухозахисний костюм</td>
<td>104</td>
</tr>
<tr>
<td>6</td>
<td>X-ray systems / Рентгенівські установки</td>
<td>52</td>
</tr>
<tr>
<td>7</td>
<td>Light EOD robots / Роботизовані вибухотехнічні комплекси</td>
<td>31</td>
</tr>
<tr>
<td>8</td>
<td>Unmanned aerial complexes / Безпілотні літальні комплекси</td>
<td>52</td>
</tr>
</tbody>
</table>
State Special Transport Service (SSTS)

Expected outputs:
1) Objects of the national transport system are demined.
2) Agricultural areas are demined.
3) Water objects are demined.

Expected outcomes:
1) Agricultural lands in Kherson, Mykolayiv, Kharkiv, Chernihiv, Sumy and Kyiv regions returned to cultivation which gives business an opportunity to return to work and restore work in de-occupied territories.
2) Decrease in fatality and casualty rate among the civilians from UXO.
3) Activization of economic growth due to the restoration of logistics routes, disrupted because of mining of objects of the national transport system.
4) Restoration of shipping on the demined parts of the Dnipro river and in the waters of the Black and Azov seas.
<table>
<thead>
<tr>
<th>No.</th>
<th>Name / Назва</th>
<th>Available q-ty / В наявності</th>
<th>Shortage / Нестача</th>
</tr>
</thead>
</table>
| 1   | Vehicles / Автомобілі  
4x4, type Volkswagen Transporter T6.1 or equivalent  
Heavy pyrotechnic vehicle  
Ambulance, type B  
4x4, type Mitsubishi L200 or equivalent  
Demining system BOZENA 5+, DOK-ING MV-10 or equivalent with complete of spare parts  
Truck type Strak C7H or equivalent with trailer | 180  
0  
10  
12  
0  
7 | 420  
100  
90  
8  
20  
13 |
| 2   | Detecting systems / Системи пошуку  
Metal detector type Minelab F3, Vallon VMH4-VS20/VS55, Vallon VMH3CS or equivalent  
Metal detector with large frame type Ebinger UPEX 740 M, Vallon VMX10 or equivalent  
Magnetometer (bomb finder) type Vallon VX1 or equivalent | 605  
0  
0 | 1495  
300  
300 |
| 3   | PPE / Засоби індивідуального захисту  
Demining visor type Rofi or equivalent  
Rofii Ravelin Demining Vest MKI or equivalent, including protective knee, elbow pads and gloves  
Med-Eng TAC 6E Suit Heavy Duty Deminer Protective Suit or equivalent  
Operator’s cabin | 0  
0  
0  
0 | 2400  
2400  
300  
20 |
| 4   | Communication means / Засоби зв’язку  
Motorola type VHF car radio or equivalent  
Motorola portable VHF radio or equivalent  
Laptop  
Tablet | 0  
410  
20  
20 | 320  
2030  
300  
300 |
| 5   | Demining (EOD) tools / Комплекти з розмінювання  
Special demining kit EOD-1M  
A set type Demining Tool Kit or equivalent  
Blasting machine type "Vykhor", "Mini Shrike" or equivalent  
Group set of tools for demining and remote removal of ammunition (Hook&Line Kit) | 713  
68  
97  
0 | 1387  
1732  
503  
300 |
| 6   | Navigation means / Засоби орієнтування  
Garmin type GPS navigator or equivalent  
Laser range finder  
Binooculars  
Copter with the ability to search for explosive objects | 30  
300  
0  
14 | 310  
0  
300  
606 |
| 7   | Medical / Медичне обладнання  
Orthopedic back shield with stabilization straps and a device for fixing the head  
Tactical rescue stretchers  
Medical kit for the unit  
Individual first-aid kit type IFAK or equivalent | 145  
145  
145  
711 | 275  
275  
275  
1829 |