



DEMINING:
UNLOCKING THE RECONSTRUCTION OF UKRAINE



THE HALO TRUST IN UKRAINE



ABILITY TO WORK IN CONFLICT ZONES

We operate many months ahead of other actors and have first-hand knowledge of what is needed to rebuild and support local communities.

ENABLER OF RECOVERY

We can help bridge development, philanthropic and commercial inputs into Ukraine.

RISK MANAGEMENT

We can provide expert risk assessments of areas exposed to conflict, by doing so areas can be efficiently returned to productive use.

CATALYTIC EFFECT

Our work creates opportunities for partnerships that can stimulate the recovery of the Ukrainian agricultural sector.

SUPPORTING NATIONAL AND PERIPHERAL VALUE CHAINS

Our work helps to give confidence to potential investors in Ukraine's economy, recovery and reconstruction.





Even before the breaching of the Nova Kakhovka dam, Ukraine had been transformed by war. Landmines and unexploded ordnance have changed the very landscape, preventing economic recovery by hindering the farming of agricultural land and leaving urban areas and critical infrastructure in ruins.

Demining is an enabler of recovery. By the identification of contaminated land through effective survey followed by efficient clearance, HALO can help bridge development, philanthropic and commercial inputs into Ukraine. Beginning the process of demining before the conflict ends demonstrates that the process of reconstruction does not need to wait for a final and comprehensive peace.

A significant portion of Ukraine has been directly exposed to conflict with thousands of hectares of farmland seeded with landmines and other unexploded munitions. This prevents agricultural production that is not just vital for Ukraine's economy, but for regional and global food security.

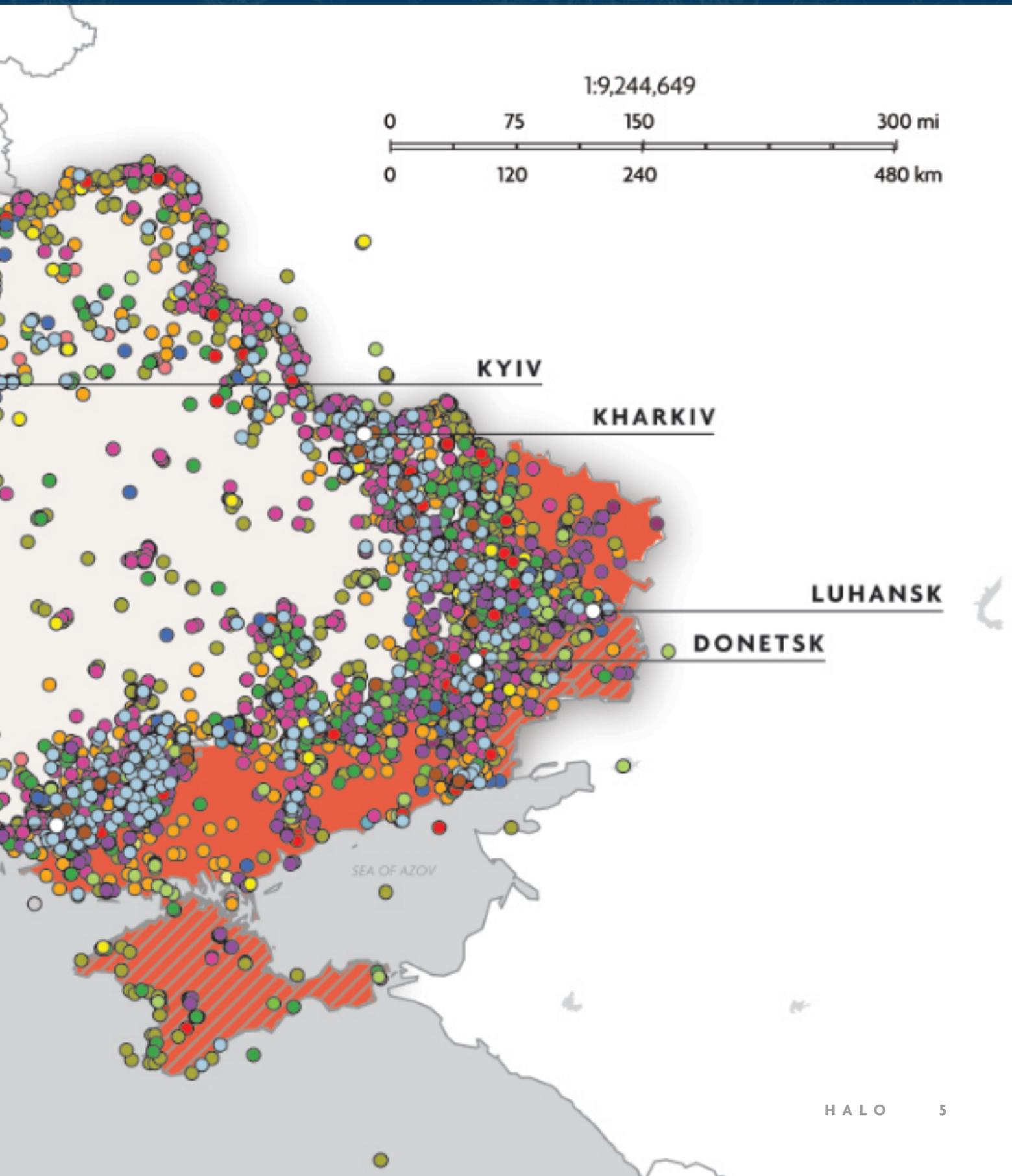
Demining at scale will provide sustainable employment, almost certainly for decades to come. Those areas of Ukraine that have seen the worst of the destruction, especially in the south and east, will benefit the most from the positioning of demining at the nexus of sustainable employment and reconstruction.

Demining is not only a humanitarian imperative and a first step towards reconstruction – it is also an opportunity for aid and investment that can stimulate the economy and resource long-term sustainable recovery and growth.

UKRAINE CONFLICT AND CONTAMINATION MAPPING



Since the first week of the Russian invasion, HALO has been collecting and analysing data about conflict incidents from open sources such as social media, news outlets and other publicly available databases online. We use this data for planning our risk education, training and clearance operations. HALO Ukraine's contamination map database now has over 50,000 entries.





“LIFE IN THE VILLAGE IS BUILT ON THE FARMLAND”

“My name is Alexander Mikolaeovich. I have farmed in Kharkiv for 40 years and rent my land from 400 local people. Before the Russian invasion, my annual harvest was over 10 tonnes, which was exported to global markets. But now my tractors are just burnt-out shells. Millions of pounds of equipment has been destroyed. The grain store held 3,000 tonnes of wheat last year. It has been blown completely apart.

The area where I farm was occupied by Russian troops between March – September 2022. There are mines and tripwires all over the place. I found at least 500 mines in the grain store. 250 mines were found in a field just ten days ago. Wherever you go, there are mines everywhere. Two farmers from Malinovka were blown up by a mine. Electricity workers were killed when trying to restore power. At least 1,700 of 2,000 hectares are contaminated.

If we can't sow the fields, we cannot export crops or pay local landowners. If we could just sow 1,000 hectares. It is the poorest people who suffer the most because they haven't received rent for the second year running. Life in the village was built on this. So please, come and help us clear the mines. Then we can begin to live.”



8.2 million



5.3 million



 **24,012**
civilian casualties



\$8.7 billion
in direct damage to
agricultural sector

THE COST OF WAR

Data as of May 26, 2023. Sources: UNOCHA, UNOHCHR, UNHCR, Kyiv School of Economics, Ukraine Ministry of Defence

\$31.5 billion
indirect losses
to agriculture 

 **194,900**
private vehicles
destroyed

 **149,300**
homes damaged
and destroyed

 **14,400**
buses and trains
destroyed

 **3,021**
schools destroyed

 **1,131**
hospitals and clinics
destroyed

160,000 sq km
land requiring investigating for
mines and munitions according
to Ukraine's Government 



HALO has provided risk education sessions to 400,000 people in Ukraine and can help companies reduce the risk to their employees

RISK EDUCATION

The HALO Trust leads in teaching people how to stay safe in communities contaminated with unexploded ordnance. Since 1990, HALO has provided six million people, in over 30 countries, with risk education. In Ukraine alone, HALO has provided almost 400,000 people with face-to-face lessons on staying safe.

By combining HALO's database of contamination with the ground truth established by our survey teams, our risk education teams are able to provide hazardous area training for infrastructure, utility or agribusinesses who need to undertake operations in Ukraine's fields and woodlands.

HALO is able to provide risk education to companies so they can demonstrate to insurance providers that they have taken all steps to reduce the risks to their employees working on Ukraine infrastructure projects.





As important as clearing the land will be rapid assessment to certify land is safe for to be farmed

BACK TO THE LAND

Before Russia's invasion, 41 per cent of exports, worth \$27.8 billion, were corn, wheat and sunflower products. From India to the Horn of Africa, food prices have risen because of interruptions to Ukraine's harvests and exports.

HALO is already working in partnership with several of the globe's largest agribusinesses, to clear landmines and explosives from Ukraine's rich farmland. HALO Ukraine is transforming the approach to land preparation and clearance using advanced survey techniques and the targeted deployment of mechanical clearance assets.

HALO has decades of experience not only clearing landmines but also surveying suspected minefields to determine when there is no landmine threat. Since 2000, globally HALO has cleared around 70,000 hectares of minefields, but has used survey techniques to certify 44,000 hectares as free from landmines.





Urban clearance and mapping has been developed by HALO in the cities of the Middle East that have been 21st century battlefields

URBAN MAPPING AND CLEARANCE

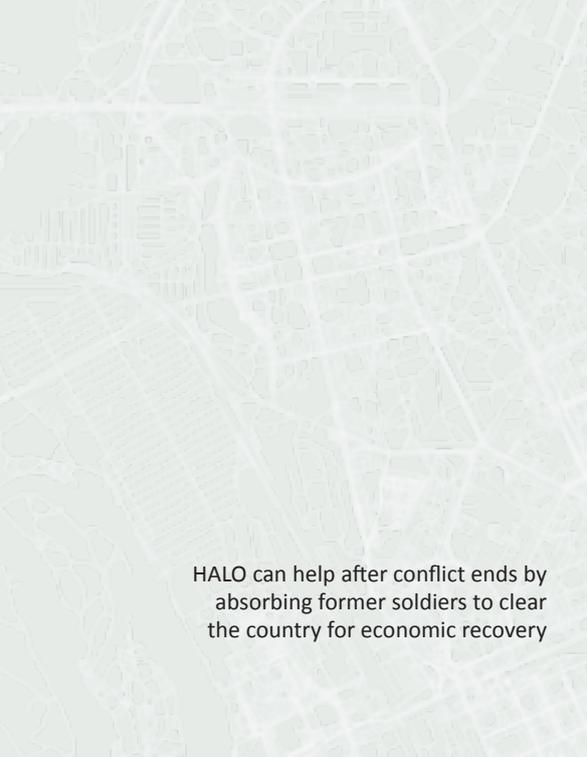
In Ukraine's countryside, large areas can be rendered unproductive by a small number of mines. In Ukraine's urban areas, industrial sites and infrastructure, contamination is more likely to be dense.

In Libya, Iraq and Yemen, HALO has developed new processes for managing explosives contamination in complex urban environments.

The pressure from displaced people to return home requires large-scale, rapid assessment and categorisation of urban areas so that business and government services can be managed concurrently with the clearance of explosives.

A key offering for HALO will be to provide informed discounting of risk in areas exposed to conflict, so that both industrial and agricultural areas can be efficiently returned to productive use.





HALO can help after conflict ends by absorbing former soldiers to clear the country for economic recovery



FROM RECONSTRUCTION TO RECOVERY



Ukraine's reconstruction and recovery needs to begin in places where it is safe and stable to do so, even while the war continues elsewhere in the country. That is the nature of response to contemporary conflict. HALO's work should give confidence to companies that they can manage risk in their operations behind front lines.

HALO is also positioned to assist in the country's wider recovery. We have a track record in providing dignified employment to former combatants in projects from Colombia to Afghanistan.



HALO has a vast experience in weapons storage and control systems as well as the employment of demobilised forces in explosives clearance. As Ukraine's economy rebuilds, HALO's capacity to absorb former soldiers can be a beneficial staging post for demobilised troops to be employed in making the country safe for economic redevelopment.



“THERE WERE 50-60 MINES IN MY FRONT YARD”

“My name is Victor Oleksandrovych Marayev and I am 63 years old. I have lived in a Hrakove village, near Kharkiv, all my life.

Before, there were 750 people living here. Only 47 remained. The streets were unrecognisable, homes were reduced to rubble, roofs and windows blown out. There were landmines everywhere. There were around 50-60 mines in my front yard.

My neighbour had tripwires in his yard. I remember one large explosion that killed a man. There was not a speck of him left. You become accustomed to it. People get used to everything. But I believe we can rebuild our village. People have lived their whole lives here. The village will be restored.”





Innovations in process, in technology and in the scale of rapid assessment will all be needed to help Ukraine rebuild

INNOVATION

There is no technological panacea to solving the challenges of demining Ukraine. Instead, the key to safe reconstruction will be to prioritise large-scale rapid assessment and survey operations. Funded by a coalition of international donors and private investors, large-scale survey work will make it possible to quickly and accurately define what is not contaminated land in order to allow reconstruction and farming to get under way quickly.



HALO is already investing in both technological innovation and innovations in process to ensure it has the right mix of techniques for the huge task ahead. Armoured, remote-controlled mechanised clearance will be a part of the mix. Drones carrying sensors, such as lidar and thermal cameras, will help with mine detection.



HALO staff and State Emergency Services teams in Mykolaiv Oblast

PARTNERSHIPS

Having been operational in Ukraine since 2015, HALO brings together its global international experience and its local knowledge to help build the long-term sustainability of the mine action sector in Ukraine.

We do this by training, assisting and leading best practice. Every day, HALO works with the State Emergency Service and National Mine Action Centre of Ukraine, collaborating on training, procurement and prioritising areas for clearance. HALO has trained Ukrainian institutions on risk education, emergency trauma medicine, explosive ordnance disposal, and technical equipment use.

HALO also works in partnerships with major international corporations to educate their staff and stakeholder networks about the risks of landmines and unexploded ordnance. We are working to develop innovative solutions to investors' needs in Ukraine – whether digital risk education campaigns targeting farmers or coordinating the clearance of high priority areas.







The HALO Trust
Carronfoot
Thornhill
Dumfries & Galloway
DG3 5BF
UK

HALO USA
1730 Rhode Island Avenue NW
Suite 206
Washington, DC 20036
United States

HALO Europe
Fluwelen Burgwal 58
2511CJ Den Haag
The Netherlands

HALO Ukraine
Kyiv Oblast, Brovary
Stephana Bandery St, 24
Ukraine

www.halotrust.org