



HUMANITARIAN MINECLEARANCE IN AFGHANISTAN | ANGOLA | CAMBODIA | COLOMBIA | GEORGIA KOSOVO | MOZAMBIQUE | NAGORNO KARABAKH | SOMALILAND | SRI LANKA

Prospectus for Cambodia 2011 and beyond



Working towards a safe harvest

Small farms form the bedrock of Cambodian rural economy and enable communities to feed and support themselves. But a generation after the Khmer Rouge's defeat, landmines and explosive remnants of war continue to jeopardize livelihoods and imperil lives. In many areas, mineclearance remains an essential first step towards rural development.

Thank you for taking the time to read this document. As you may be aware, life in Cambodia has improved dramatically in recent years after decades of conflict that ended in 1998. What is less well known is the legacy that those troubled years gave to the present generation: Landmines and explosive remnants of war (ERW) left over from fighting continue to disrupt the lives of rural communities on a daily basis. 2010 underscored the continuing need for and urgency of clearance operations in the country. After years of decline, the annual number of casualties caused by landmines and ERW rose to 286 from 243 in 2009.

Cambodia is in some respects a victim of its own successes. The rapidly growing population and economy have created an insatiable demand for land. This demand has pushed ever more people into the underpopulated northwest border regions where landmine contamination is highest.

One reason for the spike in casualties is the rising number of incidents involving anti-tank (AT) mines. These are sometimes referred to as anti vehicle mines because they are designed to be initiated by the

weight of a vehicle. Pressure for land, and particularly for farmland, has encouraged the use of tractors and trucks in fields and on roads which were abandoned during the war.

2010 was the first year that victims from anti-tank mine accidents exceeded those from anti-personnel (AP) mine accidents. AT mines have a high explosive content and are more lethal than AP mines. They often claim multiple victims.

The impact of mines is two-fold: they maim and kill and they also deny roads, fields and forest to people who depend on such lands for their livelihoods. All too often, houses, schools and other buildings are built or located within or next to minefields. Please read on to learn how the HALO Trust is assisting the affected communities. This years marks the twentieth anniversary of our work in Cambodia and we are proud of all that we have achieved over the years. As we explain in these pages, we and our partners recognize that much vital work remains but we passionately believe that firm commitments by donors and agencies can rid Cambodia of landmines forever.



A HALO deminer uses an HSTAMIDS, a conventional metal detector which also incorporates ground-penetrating radar, to search for landmines. This kind of cutting-edge technology is one of numerous ways HALO is improving cost-effectiveness and speeding up its life saving work. The more efficient that we can make mineclearance, the more value-for-money we provide. Our work is focussed on the lands selected for clearance by beneficiaries themselves. Every extra hectare makes a difference.

Locations and projects

HALO Cambodia operates out of four field-based Locations which are indicated with blue dots on the map on the facing page. The Locations manage demining operations and work with affected communities in the four worst-contaminated provinces. Locations have stores, facilities and staff that support 900 deminers throughout month-long demining cycles. Below are examples of some of the work ongoing at each Location.

Village Demining Teams. HALO developed its Village Demining Project in order to reduce the environmental footprint and costs of mineclearance and to minimize disruptions to deminers' families. Deminers are recruited directly from mine-affected communities and walk to work each morning. This saves on fuel and keeps staff close to their dependents. In particular, it allows mothers with children the opportunity to work without traveling far from home. More than 40 women now work as deminers through this ever-expanding project, which is currently running in Anlong Veng, Malai and Thma Puok Districts.

Infrastructure Development. HALO works to support infrastructure projects that will benefit the poor. We have cleared 640km (400 miles) of roads and counting, an achievement that has benefited hundreds of thousands of Cambodians and opened safe access for trade and transit as well as NGOs and landless poor. HALO's clearance is enabling two major infrastructure projects in Malai: route clearance of a Japanese-funded irrigation network and a Chinese-funded highway. We are also working on numerous smaller projects such as irrigation and water impoundments for the dry season.



Clearance for resettlement. HALO's demining helps to relieve land pressure and accommodate the landless poor. We work with government officials and NGOs to identify minefields located within areas intended for resettlement. This need is particularly acute in Otdar Meanchey Province, which is served by HALO's Anlong Veng and Thma Puok Locations. In the last decade the population of Otdar Meanchey has nearly tripled from 70,000 to more than 180,000 today. The majority of population increase is due to the creation of new villages comprising previously landless families who received land allocations from the government and moved into the area after security improved. These families come mostly from the populated provinces of southeast Cambodia. In too many cases, minefields are discovered only after families have taken up residence in their new villages.

Innovation. We are constantly seeking faster, safer and more cost-effective ways to do our job. To this end, we collaborate with detector and equipment manufacturers to develop and trial new technologies such as the ground penetrating radar system pictured on the cover. Particularly noteworthy is our partnership with the US Government's Humanitarian Demining Program, which provides us with sophisticated detection equipment and specialized mechanical units (see photo) in return for operator feedback and suggestions for improved performance. The best solutions are often the ones that seem most obvious in hindsight. For example, HALO introduced the use of handheld brush cutters, which have greatly sped up vegetation cutting, a key step in the demining process. Innovation also takes less obvious forms like improving accountability and monitoring.

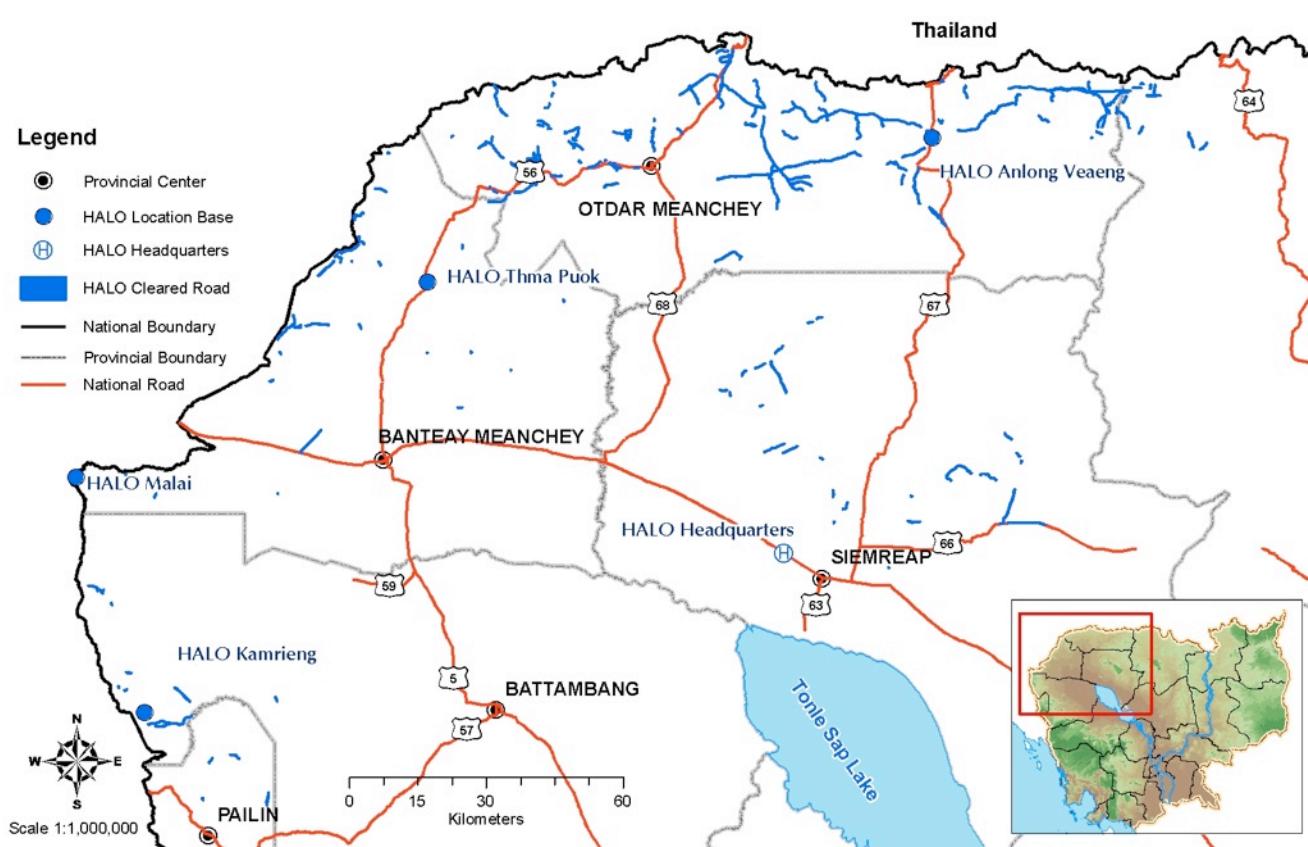
"Getting mines out of the ground, now"

Beneficiary-focussed, results-driven

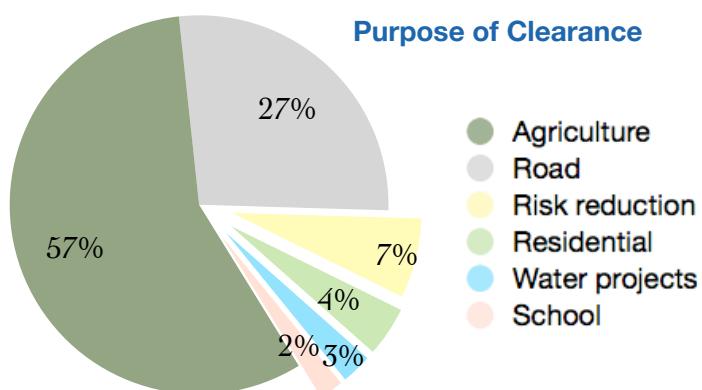
HALO has been working in Cambodia since 1991 and is the oldest and largest humanitarian landmine clearance agency in the world. We are the largest international NGO operating in Cambodia with over 1,160 national staff working in Battambang, Banteay Meanchey, Otdar Meanchey and Pailin Provinces. Around the world we have large-scale clearance operations in nine countries and employ more than 8,000 staff. Our aim in Cambodia and elsewhere is to work ourselves out of a job.

Humanitarian Demining provides relief to communities that suffer the daily privations of minefields in their midst. It is hard, dirty work that requires specialized training, equipment and skills. But it is also a transformative and sustainable process: once cleared, minefields are gone forever. HALO excels at large-scale, cost-effective, socially-responsible clearance. We recruit women and men from poor communities, pay them a living wage, and train and equip them to locate and destroy landmines through a safe and methodical process. Our staff are proud of the work they do and the contributions they make to Cambodia's development.

Millennium Development Goals. HALO comprises a crucial component of Cambodia's blueprint for meeting its Millennium Development Goals and its obligations under the Mine Ban Treaty, which requires the clearance of all minefields in country by 2019. Between 1991 and 2010, HALO Cambodia cleared over 6,421 hectares (15,866 acres) of landmine-contaminated land whilst destroying 238,853 landmines, 141,968 items of large calibre ammunition and 1.28 million bullets. Continued engagement at this scale or greater is essential to finishing the job and making mines a footnote of the war instead of a continuing reminder.



Outputs and Outcomes. Our work is about converting minefields into productive land that will allow communities to grow and prosper in safety. Our long-term vision is a Cambodia where every minefield has been cleared. In the short term, we prioritize clearing minefields with the highest humanitarian impact. The chart to the right shows how communities will use the 5,845,000m² (1,444 acres) we cleared for them in 2010. The most compelling aspect of our work is its clear and measurable impact. Its a simple equation: for each additional deminer we employ, we deliver an additional 8,500m² (2 acres) of cleared land a year to our beneficiaries. We passionately believe that the best value we can provide to our donors is putting the more deminers on the ground and more land in the hands of the rural poor.



"Getting mines out of the ground, now"

In thanks and recognition of our many donors

Thank you those who have support our work over the years and are represented below. Our funding comes primarily from government grants, foundations and individuals. We pride ourselves on providing transparent and verifiable results.



A farmer brings in the rice harvest in newfound safety following HALO's clearance of her field

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What is humanitarian mineclearance?

HALO pioneered the concept of humanitarian mineclearance in 1988 in response to the urgent and unmet need for people to reach areas blocked by minefields and to stop casualties. Mineclearance has evolved into a process of sequential stages. Cambodia has recently made much progress in *defining* what remains to be done: An ongoing national survey has mapped nearly all minefields. The challenge is *finishing* the job.

1. Survey is the process of locating and mapping mined areas. Military engineers conventionally lay mines in set patterns and map and mark the minefields. This did not happen in Cambodia. Survey attempts to re-construct lost information through interviews with people involved in or affected by mine-laying and through consideration of pertinent factors such as topography and the movement and tactics of forces. Surveyors assemble this information into ‘polygon’ maps that show the estimated boundaries of each minefield. Together, these form a national estimate of contamination.

2. Prioritization is the process of matching clearance assets to the needs of mine-affected communities. The resulting product is an annual work plan that balances competing requirements: Faced with far more work than clearance capacity, HALO has to prioritize clearance on the basis of accident rates, proximity to minefields and the development plans of communities, NGOs, and the Government. Our approach is collaborative, inclusive and serves the most vulnerable beneficiaries: We follow a bottom-up planning process in which communities rank their own priorities for clearance.



3. Clearance is the systematic search for and removal of landmines. The majority of HALO's clearance is done by teams of deminers using handheld metal detectors. All mines found in Cambodia contain metallic components which can be detected. Deminers perform a methodical pattern of overlapping ‘sweeps’ to ensure that every patch of ground within the minefield is thoroughly checked for mines. Deminers carefully investigate all signals identified by the detector: Harmless pieces of metal are discarded and mines are blown up in situ using explosive charges. Managers perform a series of Quality Control checks to confirm that nothing hazardous remains. HALO also uses armoured machinery to sift mine-contaminated soil mechanically. This technique complements the shortcomings of manual demining, which can be slowed down by metallic debris or deep-buried mines that exceed detection capabilities.

4. Handover occurs following completion of each minefield and involves a ceremony in which the beneficiaries receive the cleared land. Handover is the point at which outputs (e.g. mines destroyed, area cleared) become outcomes (e.g. the community converts the cleared land into a farm). The handover depends upon the trust of the land’s endusers: If they do not accept the quality of the work performed, they may continue to believe that their land is dangerous and avoid using it. HALO has a reputation for providing highest quality clearance, and communities are eager to resume use of HALO-cleared sites. Moreover, HALO involves communities throughout the clearance process and continues its work until both parties are satisfied that no threat remains. The handover is also an opportunity for government officials to register the progress of clearance within their jurisdictions as this frequently affects local and regional development plans.

“Getting mines out of the ground, now”

The landmine situation in Cambodia

Landmines are victim-activated devices which are designed to explode in the presence of a person or vehicle. They are 'hidden killers', generally buried just below the surface of the ground. Landmines are indiscriminate in that they kill and maim combatants and civilians alike. Opposing forces laid millions of mines following the Vietnamese ouster of the Khmer Rouge in 1979, and substantial contamination remains.

The **good news** is that this problem is finite and fixable. An ongoing national survey has determined that 70,000 hectares (170,000 acres) of minefield remain in the NW border region. This constitutes the vast majority of the remaining contamination. The emphasis now needs to be on clearing this land as quickly as possible, starting with the highest priority areas where the greatest number of accidents are occurring. To do this, we passionately believe in delivering the best value for money.

We provide **cost-effective** work by minimizing overhead and maximizing the number of deminers. With more than

1,110 national staff (the vast majority are deminers) and just three expatriate staff we ensure that our donors' funding is getting mines out of the ground.

We emphasize **efficiency** through a relentlessly data-driven approach that sets ambitious targets and monitors and rewards progress. We consistently score at the top of our field in metrics of efficiency such as mines per square metre, the percentage of minefields cleared containing mines (indicating clearance assets were not used unnecessarily), and percentage of surveyed area to cleared area (indicating accuracy of survey).



Mineclearance is part of **a larger context**: it is the first, crucial step in the larger process of rural development. Related undertakings are discussed below.

Mine Risk Education (MRE) entails activities which seek to reduce the risk of injury from mines and other ERW by raising awareness of men, women, and children in accordance with their different vulnerabilities, roles and needs. HALO provides targeted MRE to mine-affected communities in conjunction with survey. Unfortunately, the utility of MRE in rural areas is limited by economic and food pressures which push people onto land which they know to be mined. According to statistics provided by the Cambodian Mine Victim Information Service, 64% of mine and ERW victims recorded in 2010 had received MRE prior to their accidents. In some areas the problem is especially pronounced: A HALO-commissioned case study found that 84% of mine victims in impoverished

border region communities reported knowing that they were walking in a minefield at the time of their accident. However, their livelihoods depended upon foraging and agricultural practices within mined land. In these instances, clearance is the only sustainable solution.

Explosive Ordnance Disposal (EOD) is the discipline within mineclearance that disposes of mines and ERW. It is also a standalone activity: dedicated teams respond to community, police, or military discoveries of hazardous items. These items cause more accidents than mines annually but contamination rarely follows a pattern so clearance and disposal are usually reactive activities. HALO has responded to more than 7,500 EOD requests since (731 requests in 2010) and has destroyed more than 42,000 mines, 1.2 million bullets, and 110,000 items of other ordnance. This work has certainly saved hundreds of lives.

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