

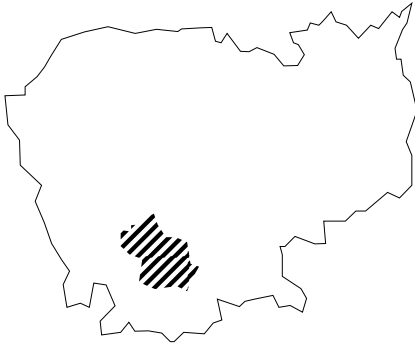
CASE 6.

Explosive remnants of war:

A long-term legacy
(Cambodia, 1960s-present)

COUNTRY

Cambodia

**PERPETRATOR**

(Foreign) Armed forces in the 1960s and 70s, including the North Vietnamese Army, US forces and the Khmer Rouge

ACT

laid landmines and dropped bombs, including cluster munitions, all over Cambodia

OBJECTIVES*

- to strengthen defences
- to deny enemies access to or control of areas

** As far as we have been able to discern; the list may not be exhaustive in this regard*

CONSEQUENCES

The continued occurrence of physical injuries, including amputations, and casualties among civilians who happen upon ERW

- ↳ leading to the social stigmatisation of people with amputated limbs

Decreased access to land, schools and medical facilities in ERW-contaminated areas

- ↳ leading to decreased or loss of livelihood among farmers in particular
 - ↳ leading to negative coping mechanisms, such as crime, prostitution, begging
- ↳ leading to malnutrition

Inability of health teams to provide medical care to remote areas because of land contamination

Psychological trauma

The development of a landmine culture in which civilians collect UXOs to sell, play with, hunt or fish

- ↳ contributing to even higher numbers of casualties

Cambodia is seen as a popular tourist destination in Far East Asia, boasting lush jungles, serene waterfalls, and world-famous temples. Many swarm to Angkor Wat and Siem Reap to take in the history and the genius of the Khmer Empire architecture, with the cities now dotted with chic cafes and contemporary art scene; the Cardamom Mountains becoming a hub for ecotourism; and many more going island hopping in the south; spotting the last few freshwater dolphins in the Mekong river; taking in the majestic rice paddies and swaying sugar palms; enjoying the simple life in fishing villages. Tourism, along with textiles, is the major industry in Cambodia, with the country receiving over six million tourists in 2018 (Khidhir, 2018). However, starting from the 1960s, Cambodia suffered from three decades of war, the legacy of which still haunts the nation in the form of Explosive Remnants of War (ERW), Unexploded Ordnances (UXOs) and landmines which have now become a largely forgotten humanitarian emergency (Tucci, 2015).

6.1 Case: **Playing with fire¹**

Iap (12) and his older brother Long (15) found a small pile of ordnance near their village in Kompong Speu Province. The brothers carried three of the shells to their house, wanting to sell them to the scrap collector who visited their village daily. They knew the scrap collector would not buy live ordnance with a fuse. When twisting the fuse out did not work, the boys came up with the plan to burn the ordnance in

order to make it explode; they would then be able to collect the scrap metal fragments and sell them. The brothers called together a group of friends to help them. They took one of the shells around fifteen metres away from the back of the house and dug a shallow hole in the hard ground. The friends gathered some rubbish into a pile and set it alight. They lay on the ground nearby waiting for it to explode, but nothing happened. At the second attempt, the shell exploded with thundering noise, and the children were scared for a split second; they cheered 'ho!' because their plan had been successful, and they would be able to sell the scrap metal to buy some sweets.

Excitement soon turned to dismay when they realised that the explosion had sent metal fragments all over the place and it would be difficult to collect any. A few fragments also injured three of the children, who were watching. Luckily, they were not seriously injured. Villagers and soldiers stationed nearby came over upon hearing the explosion. The boys' family members and neighbours were furious at what the children had done, and gave the boys a serious beating. Even though Iap and most of the other boys said they would not do it again for fear of being reprimanded by their relatives, one small child stated that it was so exciting because, 'you get to hide and jump on the ground round at somebody else's house.' He was afraid when it exploded, but it was all part of the excitement. All of the boys agreed that it was the bravest and most exciting thing that they had ever done. The boys continued to collect scrap metal but not from live ordnance anymore. They spent the money from this foraging on clothes, biscuits, 'sweet ice' drinks and elastic bands.

The location where the children claimed to have found the live mortar was a plot of land that had not been de-mined by any mine action agency, even though the Mines Advisory Group (MAG) and

the Cambodian Mine Action Centre (CMAC) were active in the wider area.

Incidents like these are not uncommon in Cambodia, a country still suffering from the repercussions of three decades of conflict. According to the Landmine Monitor data, the extent of landmine and cluster munitions contamination in Cambodia is 'massive', and the country is generally considered one of the most contaminated in the world (Landmine and Cluster Munition Monitor [LCMM], 2018a). Recent estimates show that there may be as many as four to six million mines, ERW and UXOs left undetected in Cambodia, although some estimates run as high as ten million (Nickels, 2012a). The ERW still prevalent in the country include everything from mortar shells, AK-47 bullets, BLU-24 cluster bombs, to M79 grenade launcher shells. From 1992 to October 2019, approximately 1,900 square kilometres of landmines, cluster munitions and ERWs have been cleared (Sovuthy & Kuntheart, 2019). However, another 2,000 square kilometres have to be cleared within 5 years if Cambodia is to achieve its target to be mine-free by 2025, which requires an estimated budget of USD 337 million (Xinhua News, 2019).

Since 1979, there have been 64,720 recorded casualties of explosive remnants, including 19,758 deaths (LCMM, 2018a). News articles on farmers killed or maimed by UXOs and explosion-related injuries in the black market for scrap metal do not even make it to the front page anymore. To give some impression of the problem at hand: As recent as June 2018, over 500 pieces of UXOs, including 514 AK-47 bullets and a 100mm mortar shell, were found and collected in Pursat province's Bakan district (Sarom, 2018). Similarly, in January 2019, CMAC deactivated another 132 items of US-made BLU-24 cluster bombs in Samrong village in Kratie province (Chakrya, 2019). In June 2020, a 51-year-old man

died in Pnhea Leu while he was working on the head of a 105mm shell to build a piece of agricultural equipment. Two more pieces of 105mm shells were found near his body in a scrap pile. His family shared that the victim had bought bullets from a scrap dealer in the village about a decade ago, and regularly used old artillery shell heads to make parts for a variety of agricultural machinery (Chakrya, 2020). These are just a few of many examples of the lingering problem of ERW in Cambodia.

6.2 Perpetrators: 'Perfect soldiers'

Cambodia continues to be impacted by two separate ERW legacies. The North Vietnamese army laid the first landmines in Cambodia in 1967 and continued to do so throughout the Vietnam War period to protect bases and supply routes along the border. The US responded with covert operations from 1969 to 1973, dropping tons of bombs and laying mines well within neutral Cambodian territory. Staggering numbers of cluster munitions were dropped, and up to one third of the submunitions failed to explode on impact. The intensive bombing campaign by the US – concentrated in Vietnam, Laos and Cambodia – saw over 2.75 million bombs drop on Eastern Cambodia alone (Harvey & Rodstedt, 2010).²

The second legacy is from Pol Pot's Khmer Rouge regime, supported by China, which is responsible for the deaths of approximately 1.7 million Cambodians between 1975 and 1979. Purportedly, Pol Pot called landmines his 'perfect soldiers'. Following the coup by General Lon Nol against Prince Norodom Sihanouk in 1970, war between Khmer Rouge forces and the US-backed Lon Nol regime brought conflict and landmines to the rest of Cambodia. The Khmer Rouge used landmines for military purposes and to seal off their harsh agricultural cooperatives in

'liberated' zones. Lon Nol forces relied heavily on mines towards the end of the war to strengthen defences. During its four years in power, the Khmer Rouge used mines extensively along the borders with Vietnam and Thailand, turning the country into what was called a 'prison without walls' (Nickels, 2012a).

During the Khmer Rouge regime, soldiers sometimes used ERW in a rather blasé manner, exacerbating the potential risk to civilians. Soldiers who were tired of patrolling at night would lay ERW and UXOs around culverts and paths leading to their encampments. The mines would often be left around with the soldiers forgetting to pick them up, or in some cases could not be bothered to retrieve them. They laid down Chinese Type-69 mines which erupt into the air when triggered, exploding at chest height and sending small steel balls at ballistic speed in all directions, causing damage to those around the explosion as well (Dunlop, 2018).

In December 1978, Vietnamese armed forces in conjunction with Cambodian rebel forces, struck back at the Khmer Rouge. Within weeks, guerrilla warfare started with all groups extensively deploying mines across very fluid battle lines as a weapon of choice to protect territory, channel enemy forces to vulnerable positions, and demoralise communities. Starting in 1985, millions of mines were laid in a 600-kilometre barrier along the Thai border under the notorious K5 conscription programme by Vietnam. Throughout the three decades of mine laying in Cambodia, it was standard practice to lay much denser minefields than necessary, and to lay them not only in battlegrounds but among civilian communities. Minefield location maps were generally not drawn, and as a result, mine laying frequently took place in already-mined areas. Wet seasons caused mines to move or become buried, which further complicates the task of locating and clearing them (Nickels, 2012a).

In the 1980s, China was providing the Khmer Rouge approximately USD 100 million a year, thereby indirectly supporting violence against Cambodian civilians (Elich, 2014). By 1985, annual covert CIA support to Cambodian guerrilla factions was estimated to be USD twelve million, and Congress voted to send an additional USD five million per year in overt aid, with the British Special Air Service (SAS) training Cambodian guerrillas in Thailand. All can be argued to be complicit in causing civilian harm. Yet, perpetrators are only partially taking responsibility, and most of the time shift blame to others. To illustrate: The US embassy spokesperson in early 2019 stated that 'the United States has addressed its war legacy by long-standing and substantial efforts for humanitarian demining and removing unexploded ordnance (UXO), including the removal of hundreds of thousands of Chinese-made mines, which have injured and killed people for decades' (Narin, 2019), thereby alluding to the Chinese support that the Khmer Rouge received.

6.3 Victims: **Cambodia's landmine culture**

While active conflict may long be over, ERW and UXOs claim victims to this day. Between 1979 and June 2020, a total of 19,789 people in Cambodia were reported killed as a result of landmine and UXO explosions to the Cambodian Mine Action Authority, while another 45,102 people were recorded as having been injured, or worse, had to undergo amputations (Xinhua News, 2020). There is still an average of one ERW-related death or injury every week (Mines Advisory Group, n.d.). It is estimated that 1 in every 250 to 270 persons has stepped on a landmine or an ERW.

The most common victims of ERW include males between the ages of 18 and 40 years, followed

by children, although casualties come from all demographic groups. This overrepresentation of male victims is mostly attributed to the participation of men in pastoral and agricultural activities, which increases their exposure to mines and ERW. Furthermore, men are more likely to have had some sort of military experience in post-conflict countries where ERW and UXOs pose a threat, also leading to a higher degree of confidence around munitions, which results in men being more likely to approach explosive items. Social displays of contact with ERW are at times also associated with an expression of masculine identity (Borrie, 2003).

Another emerging trend is that most of the contamination is in rural areas where the population is dependent on farming. Consequently, 23 per cent of incidents occur during the course of agricultural activities. All of Cambodia's provinces are afflicted to some degree, and 6,422 villages (46 per cent of Cambodian villages) have UXO-infested areas. A conservative estimate is that 2.5 per cent of the total surface of the country is contaminated (Borrie, 2003). However, under-reporting and limited accuracy of data hamper quantification of the full scope of the contamination.

ERW incidents are fatal more often than anti-personnel mine incidents, even though the latter get more coverage. Furthermore, ERW-related incidents tend to kill and injure multiple people per incident. In 1997, MAG found that one in every two to three landmine and UXO victims was injured as a result of someone else's accident (Monin & Gallimore, 2011).

During the Khmer Rouge regime, ERW were also available in the black market for civilians to buy to protect their properties, and it has been rumoured that on rare occasions, they were also used to settle property disputes (Monin & Gallimore, 2011). At the time, civilians sometimes

used UXOs around their properties as a means of keeping out the Khmer Rouge during their reign of terror, even though it posed a danger to themselves and their families.

Immediately after the conflict, UXOs and landmines were so common that they became part of the daily life in Cambodia, so much so that a so-called 'landmine culture' developed in the country (Kunthea, 2019). Civilians deliberately collect or tamper with UXOs for a variety of reasons: to sell, to move, to fish with, to dismantle, to play with, to destroy, to demine, to re-use as a mine, or to hunt, often with injuries and death as a result (Kunthea, 2019; Moyes, 2004). The scrap trade is a powerful and extensive economic institution in almost all rural communities, directed towards the international market, primarily Thailand, and represents a chain of economic relationships that can link children in rural villages to the macro-economics of international industries. Ordnance is one of the most significant sources of scrap metal but since live ordnance is not welcome within the scrap trade, people in rural communities must render live ordnance 'safe' in order to sell it, like Iap and Long attempted to do. This is a fundamental and problematic component of the issue of ordnance handling within Cambodia. Many children draw upon scrap metal collection and sale to supplement their pocket money, even though they generally recognise ordnance and know that it is dangerous (Moyes, 2004).

It is clear that contact with ERW is not stigmatised in some societies, despite awareness of its dangers. In fact, in economies such as those of Laos, Cambodia, Vietnam and in the Horn of Africa quite the reverse may be true: as illustrated above, ERW items have perceived economic value as scrap, in the fashioning of everyday objects, or for their explosive content. Children learn from the people around them,

and an environment in which contact with unexploded munitions or their components are familiar or routine may increase the risk to youngsters. ERW have become a regular part of their daily lives. The ERW culture is so prevalent in Cambodia that a makeshift landmine museum opened in 1997 in Siem Reap, founded by ex-child soldier Aki Ra as a way to tell the world about the horrors that landmines have inflicted on his country.

The injuries caused by UXOs and landmines to individual victims are compelling: No audience, lay or medical, will fail to be shocked by images of shattered and missing limbs, and blinded eyes; yet the indirect or second-order health effects of the ERW epidemic are more far-reaching. Due to poverty, lack of infrastructure, and limitations of the health care system, in many situations an UXO or landmine injury will be fatal. Those who survive, moving awkwardly with simple prostheses, will be a permanent reminder of ever-present danger and intractable fear. This becomes especially pronounced as most of the victims in Cambodia are based in rural areas and are already socioeconomically vulnerable. With over 25,000 amputees, Cambodia has the highest ratio of mine amputees per capita in the world (Nickels, 2012b).

Furthermore, losing a limb is considered a social stigma in Cambodia, where amputees are known as 'crocodile meat'. Many are forced to beg. Michael Ignatieff, an academic and ethicist at Harvard University, having seen many victims in various countries, stresses the effects that amputations have on poor countries, and how they have an even worse effect on women:

[A]mputation is just a very different thing in a poor and destitute culture than it is in a Western one...I'm very struck by the way in which injury to women ruins their lives to a degree that it doesn't ruin men's lives.

A woman without a leg is human refuse in patriarchal societies.[.] (Monin & Gallimore, 2011)

Important to take into account too is that, where the victim is the principal family breadwinner, the family economy will rapidly run down and desperate measures – begging, prostitution, or crime – may be invoked to maintain survival. It is essential to recognise what the presence of landmines, ERW and UXOs does psychologically to whole communities that are used to providing for themselves and being independent, who have lost the ability to provide for themselves and their families, and to be part of the larger community (Maddocks, 1998). It is these effects of ERW which are extremely hard to mitigate, making it difficult to examine the actual cost of harm that they can potentially cause.

All members of ERW-affected communities are potentially vulnerable to its socioeconomic effects, especially if community functions such as the production of food or cash crops, access to clean water supplies, or infrastructure such as roads, schools and markets are affected. In Laos, for example, many families have learned to accept malnutrition rather than work land that poses a high risk of incident from ERW, making this another indirect effect, resulting in a vicious spiral which has more far-reaching ramifications than intended (Borrie, 2003). Landmine and ERW contamination can also undermine the health of a population indirectly by destroying food security, access to livelihoods as evident in the example of Laos above, as well as access to safe water and to vaccination and health facilities in general. These weapons can also prevent community-based health teams from carrying out their activities. As succinctly noted by Maddocks (1998, p. 24), 'infectious diseases move freely [...] but health teams are restricted to safe areas'.

Contamination effects and challenges

Despite significant progress, Cambodia is currently not on track to complete clearance by 2025.³ An estimated USD 337 million is required each year to achieve this goal (Xinhua News, 2019). In order to meet the demining targets, Cambodia should be clearing on average eleven square kilometres per year of contaminated land, however over the past five years, it has only averaged two square kilometres annually (Peter, 2016). 'Most of the efforts are going into possibly low-density minefields, whereas demining interventions need to focus on dense anti-personnel minefields, especially when taking into account fluid population movement. Otherwise there will be a massive spike in casualties' (Peter, 2016). Besides the clearing of an area with deminers, a suspected minefield can also be taken off the contamination list if it has been ploughed by farmers without any incident for three years.

It is important to understand that an ERW-affected community is not just one that has experienced incidents resulting in injury or death. It is also one in which the known or suspected presence of ERW interferes with activities necessary for the social and economic health of the community, such as access to water sources, housing or other infrastructures including schools, hospitals and roads. It should be kept in mind that ERW numbers alone do not tell the story of their impact. Going beyond the numbers and considering the range of ways in which it affects human lives is the only true way to assess the full range of their implications for civilians.

6.4 Significance: **ERW as a global problem**

In the current decade, it is civilians in Iraq, Syria and Afghanistan who are suffering from the brunt of ERW. Other sites of considerable casualties are Ukraine, Pakistan, Nigeria,

Libya, Yemen and Myanmar- with Myanmar recognised as the only state to use landmines in the past year. Of the 60 countries that are known to have mine contamination, over half are committed to the Mine Ban Treaty, which aims for contamination to be cleared within 10 years; only 4 are on track to meet their deadlines, namely, the Democratic Republic of Congo, Peru, Sri Lanka and Zimbabwe (AP Mine Ban Convention, n.d.). Mine clearance during conflict is a complicated task. Due to shifts in the power balance, new types of explosives and new strategies might emerge. There are risks for the mine clearance personnel too. In 2017, three humanitarian deminers were killed and one injured in conflict-related attacks, posing further challenges to clearance (LCMM, 2018b).

Over 60 million people still live in daily fear of landmines and unexploded bombs, most of them from poor rural communities. According to the landmine and cluster munition monitor, civilians continue to account for the vast majority of casualties (87 per cent), with children making up nearly half (47 per cent) of all civilian casualties globally. However, in many war-affected countries reporting is a challenge and it is suspected that a significant number of victims and incidents ends up completely unreported. While Cambodia's status was revised upwards as a lower-middle income country in 2016, other affected countries such as Angola battle to attain funding from foreign donors as they have reached middle-income status. The same holds true for Iraq, where Islamic State of Iraq and Syria (ISIS) used Improvised Explosive Devices (IEDs) in unprecedented numbers, in farming land and booby trapping key infrastructure such as water pumping stations. However, international support for land clearance remains dismal.

Several of the states for which no estimate is provided are heavily or massively contaminated. The Demilitarized Zone (DMZ) separating North

Korea and South Korea and the Civilian Control Zone immediately adjoining the southern boundary of the DMZ remain among the most heavily mined areas in the world, but no data are available on the extent of contamination. Despite all the challenges that come with land clearance, one should not forget the funding needed for victim rehabilitation, both in terms of prosthetics needed and the subsequent training on effectively using them, and the psychosocial support as a result of the trauma faced. Those who survive but with permanent disabilities, often face social and environmental barriers that can preclude their full and equal participation within their communities. With many health campaigns and calls to action to promote child health and survival, it is worth noting a substantial proportion of civilian landmine and ERW accidents occur in children, as described above.

The number of countries fully bound by the Mine Ban Treaty recently grew, reaching 164 after Palestine and Sri Lanka acceded in December 2017. The Mine Ban Treaty, which became international law in 1999, bans the use of mines that detonate due to human contact. The treaty covers victim-activated IEDs, also called 'improvised mines', that can be triggered by a person (LCMM, 2018c). Notably, more than one third of all affected countries (such as Syria, Pakistan, Myanmar and Libya) are not on board the Mine Ban Treaty, which highlights the importance of further treaty universalisation. States not party generally provide less information about the extent of contamination, land cleared, and casualties suffered, thus making global assessments more difficult.

Global treaties on ERW and landmines

There are three main conventions in international law which deal with landmines, ERW and cluster munitions:

- The Anti-Personnel Mine Ban Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (often referred to as the Ottawa Convention or Mine Ban Treaty)
- The Conventional on Certain Conventional Weapons Amended Protocol II (1996) on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices, and Protocol V on Explosive Remnants of War
- The Convention on Cluster Munitions – the 2008 convention that prohibits all use, stockpiling, production and transfer of certain Cluster Munitions; separate articles in the Convention concern assistance to victims, clearance of contaminated areas and destruction of stockpiles

Images



The Cambodian Landmine Museum, which seeks to educate people both on the direct and indirect impact of landmines.

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A close-up of a landmine, one of various sorts of unexploded ordnances left behind in Cambodia that continue to cause harm.

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Endnotes

- 1 The case has been adapted from Moyes (2004, p. 80).
- 2 A total of 230,544 bombing raids were carried out across 115,275 locations in Cambodia. Over 2.8 million tonnes of ordinance, roughly equivalent to 2.59 million bombs, were dropped during this time (Chakrya, 2019).
- 3 The goal set by the review of the Oslo convention: a landmine-free world in 2025.