

Journal of Conventional Weapons Destruction

Volume 20
Issue 2 *The Journal of Conventional Weapons
Destruction*

Article 13

July 2016

Explosive Remnants of War: A Deadly Threat to Refugees

Ken Rutherford

Center for International Stabilization and Recovery at JMU (CISR)

Andrew Cooney

Center for International Stabilization and Recovery at JMU (CISR)

Follow this and additional works at: <https://commons.lib.jmu.edu/cisr-journal>



Part of the [Defense and Security Studies Commons](#), [Emergency and Disaster Management Commons](#), [Other Public Affairs, Public Policy and Public Administration Commons](#), and the [Peace and Conflict Studies Commons](#)

Recommended Citation

Rutherford, Ken and Cooney, Andrew (2016) "Explosive Remnants of War: A Deadly Threat to Refugees," *Journal of Conventional Weapons Destruction*: Vol. 20 : Iss. 2 , Article 13.

Available at: <https://commons.lib.jmu.edu/cisr-journal/vol20/iss2/13>

This Article is brought to you for free and open access by the Center for International Stabilization and Recovery at JMU Scholarly Commons. It has been accepted for inclusion in Journal of Conventional Weapons Destruction by an authorized editor of JMU Scholarly Commons. For more information, please contact dc_admin@jmu.edu.

Field Notes

Explosive Remnants of War:
A Deadly Threat to Refugees

by Dr. Ken Rutherford and Andrew Cooney [Center for International Stabilization and Recovery]

The deadly legacy of explosive remnants of war (ERW), including landmines, improvised explosive devices (IED) and unexploded ordnance (UXO) is increasingly a threat to refugee populations, economic migrants and internally displaced persons (IDP) in countries throughout Africa, Europe, the Middle East and Southeast Asia.¹

By the end of 2014, the implications of persecution, conflict and other factors forcibly displaced approximately 59.5 million people worldwide. This number is comprised of 19.5 million refugees and roughly 38 million IDPs.² Refugees from the Middle East are at extreme risk since they primarily travel across the Balkans, including Bosnia and Herzegovina, Syria, and Turkey, which have mines planted along their borders and UXO from previous conflicts scattered throughout their territory. In this case, ironically, instead of being a threat to ambulatory refugee populations, mines can be the original cause for the displacement of civilians in their own countries.

The use of mines, IEDs and UXO in highly populated areas and along transportation routes occasionally forces people to flee due to fear of injury or death, positioning ERW as a major determinant of civilian displacement. This was demonstrated recently in Libya, when roughly 60,000 people fled from an uprising and were subsequently delayed in their return as a

result of ERW contamination in residential areas.³ These myriad effects of mines both as causes of migration and impediments to migration is displayed in Table 1.

Afghanistan, Iraq and Syria are three of the most landmine-contaminated countries in the world. Refugees, IDPs and migrants who cross through these states are at a tremendous risk for both injury and death. The armed forces under former Iraq President Saddam Hussein planted hundreds of thousands of mines near the Iran-Iraq border during the Iran-Iraq War (1980–1988), and many still threaten refugee populations.⁴ According to the International Campaign to Ban Landmines (ICBL), anti-personnel (AP) mines were used in recent conflicts, such as by the Gaddafi regime in Libya and Syria.⁵ The HALO Trust estimates that Afghanistan “is one of the most mined countries in the world with estimates of up to 640,000 landmines laid since 1979” and that “[m]ore than three decades of conflict have also left the country littered with unexploded ordnance (UXO).”⁶

In the Middle East, the Islamic State of Iraq and Syria (ISIS) has altered the humanitarian mine action landscape, increasing the threat of injury and death through the use of explosive devices such as mines, booby traps and IEDs. Formerly under ISIS command, Jurf Al-Sakhar, a town roughly 60 miles southwest of Baghdad, was found to have around 3,000 mines

	Refugees	IDPs	Asylum seekers in EU in the 4th Q of 2015
Turkey	1,587,374		
Afghanistan	300,423	805,409	79,300
Iraq	271,143	3,596,356	53,600
South Sudan	248,152	1,645,392	
Syria	149,140	7,632,500	145,100

Table 1. Per U.N. Commissioner for Refugees and the European Commission, 3 March 2016. <http://bit.ly/1XaQQ2F>.
Courtesy of Eurostat Statistics Explained.



Domiz camp in Dohuk, Iraqi Kurdistan, is the temporary home to more than 16,000 Kurdish Syrians.
Photo courtesy of IRIN.

when the Iraq army reclaimed the territory.⁷ ISIS also proves to be a formidable enemy and danger to refugees in the Middle East because of their ability to adapt and reinvent these explosive devices. Moreover, the transnational insurgency group is committed to deploying vast amounts of nuisance mines, which are harder to locate, mark and clear as they are not deployed for military tactical purposes but are laid haphazardly and at random.⁸ ISIS leverages its advantage of territory, facilities, financing and technical knowledge to adapt.⁹ According to the Kurdish fighters who battle ISIS, the group left thousands of mines in their wake as they fled the Syrian city of Hasakah. There are so many mines, in fact, that at least 15 villages around Hasakah are uninhabitable; Kurdish fighters simply do not have the technology or skills to conduct mine clearance. A commander in the army stated that 15 of his fighters were killed in the last four months while attempting to defuse mines.¹⁰ Additionally, Iraqi forces took the city of Anbar back from ISIS control in December 2015. However, ISIS “used ‘improvised explosive devices’ to booby trap roads, buildings, pylons, bridges and river banks, and placed snipers in high positions as it seeks to hamper the progress of its enemies in Ramadi.”¹¹ Since December 2015 and as a result of these tactics, roughly 20 civilians were killed and many others injured by IEDs while trying to flee. Looking at Iraq as

a whole, there are currently 3.3 million IDPs in 3,500 sites across the country, according to statistics issued by the U.N. mission in Iraq in March 2016.¹¹

Fighting not involving ISIS continues to occur throughout Iraq but especially around the city of Ramadi. According to Iraq’s Ministry of Displacement and Migration, thousands of Iraqi citizens fled from the fighting between the army and Daesh militants around the city. The Iraqi army previously reclaimed the city from Daesh militants in December 2015, and the government is clearing the city of UXO before IDPs can safely return.¹²

These obstacles demonstrate the critical danger citizens face even after they return home. According to MAG (Mines Advisory Group), approximately 110,000 Syrian refugees have fled to Iraq. The majority live near the Domiz Refugee camp, which is located next to a former military base and is heavily contaminated with mines and UXO.¹³ Since the late 1980s, mines have victimized more than 29,000 people across Iraq, with more than 14,000 of those casualties occurring in the Kurdistan region. This is an immediate issue, as the majority of refugees are currently living in this region.¹⁴ In addition, minefields remain along the borders of Iran, Saudi Arabia, Syria and Turkey, as well as along the internal former Green Line separating the Kurdistan region from central and

Country	Number of casualties
Afghanistan	1,296
Colombia	286
Myanmar	251
Pakistan	233
Syria	174
Cambodia	154
Mali	144

Table 2. Bolded countries ratified the *Anti-Personnel Mine Ban Convention*, per the *Landmine and Cluster Munition Monitor*, November 2015. <http://bit.ly/24AqYwL>.

Table courtesy of the Landmine and Cluster Munition Monitor.

southern Iraq. As a result of the massive amount of mines, refugee movement in Iraq is heavily restricted. Table 2 lists countries with more than 100 reported ERW casualties in 2014.

The Middle East

Since the Syrian Civil War began, people in increasing numbers have fled the country for Europe and North America in search of a better quality of life. To date, at least 1.6 million Syrians have sought refuge in Turkey, and the Turkish government has already spent nearly US\$4 billion in response. Their path across the border into Turkey is littered with UXO, greatly increasing risk of injury or death. Human Rights Watch (HRW) reports that Turkey laid almost 615,500 mines along its border with Syria to prevent illegal border crossings between 1957 and 1998. HRW states that a restricted zone along the Turkey-Syria border threatens thousands of Syrian refugees with a high number of mines.¹⁵ Despite the Turkish General Assembly passing a bill in February 2015 to clear the majority of those mines, refugees continue to be killed and injured as they try to escape from Syria.¹⁶ A renewed effort by the Turkish government may make a huge difference in procuring safety for migrants fleeing Syria. According to Turkish Defense Minister Ismet Yilmaz, more than 222,000 mines will be cleared, and the country aims to conclude clearance operations by 2022.¹⁷ Civilians are not the only ones who are at serious risk from mines. According to ARA News from 16 March 2016, at least five Kurdish YPG (People's Protection Units) fighters were killed and 20 or more wounded in a mine explosion planted by ISIS prior to their departure from Shaddadi city in Syria's northeastern Hasakah province.¹⁸

The current number of Syrian refugees is simply staggering. According to the UNHCR, there are 4,813,993 registered Syrian refugees as of 16 March 2016, with 2.1 million residing

in Egypt, Iraq, Jordan and Lebanon. Another 1.9 million refugees are in Turkey and more than 28,000 in North Africa. The refugees are 49.3 percent male, 50.7 percent female, with the largest demographic being those between the ages of 18 (21.5 percent) and 59 (24 percent). Between April 2011 and January 2016, there have been 935,008 Syrian asylum applications in Europe.¹⁹

Despite having an economy that comprises less than 0.001 percent of the U.S. and E.U. economies, Jordan has accepted at least 60 times the number of Syrian refugees as France and 250 times the number of refugees as Italy. Based on the latest figures from the UNHCR, there are 630,000 Syrian refugees registered in Jordan.¹⁹ With so many migrants and refugees, Jordan is having an extremely difficult time keeping up with the increasing numbers. According to Amnesty International, 58 percent of Syrians in Jordan who have chronic health conditions lack access to medications or other health services.²⁰ This is a serious issue because these refugees rely heavily on the health services provided by Jordan. Lebanon, too, is bearing the brunt of the protracted violence in Syria. According to Al Arabiya, the number of Syrian refugees in Lebanon is more than a quarter of the country's own population, and Lebanon is hosting at least 1.2 million refugees.²¹

IDPs and refugees are concurrently vulnerable to landmine devastation. Presently the 7,632,500 IDPs in Syria are threatened by mines and UXO. Furthermore, roughly 6.5 million of those IDPs are in need of serious humanitarian assistance in the wake of the ongoing conflict according to the United Nations.²² In 2012, Syrian troops reportedly planted mines along routes used by IDPs trying to flee the country.²³ ISIS has similarly added to the danger by leaving mines and UXO in Christian civilian homes. As a result, civilians returning to their homes are faced with underground devices that can be triggered by something as simple as a bicycle or a child's footsteps.²⁴

Europe

Even after reaching Europe, refugee populations are not safe from the devastating effects of mines. Croatia and Hungary recently closed their borders to refugees, forcing them to follow a new path from Albania, Bosnia and Herzegovina, and Montenegro. Left over from the Yugoslav Wars of the 1990s, Bosnia and Herzegovina has 1,417 minefields across 1,165 kilometers of territory.²⁵ The flooding that plagued the country in 2014 is another issue compounding the country's mine contamination. Many mines have shifted to new areas, calling for emergency marking in many of the flooded areas.²⁶ Prior to the border closing, the majority of refugees could safely cross through Hungary on the way to their final destination, most



The Za'atari refugee camp for Syrians in Jordan, November 2013.
Photo courtesy of CISR.

often Germany or a Scandinavian country. Like Bosnia and Herzegovina, Croatia is rife with mines and UXO. There are an estimated 50,000 mines in the ground, and 198 people have died in Croatia from UXO since 1996.²⁷ Mines are dispersed across 10 counties and contaminate at least 77 towns and municipalities. Greece is a popular entry point for Middle Eastern and African refugees, and faces many of the same problems as Croatia. Despite reporting in 2011 that it cleared UXO from large amounts of land, a military official noted that residual contamination could still exist in multiple other areas of the country.²⁷ The *Landmine and Cluster Munition Monitor* reports that a majority of these existing mines date back to the Greek civil war (1947–1949). Similar to Turkey, mines planted at least 50 years ago still pose a threat and cause long-term damage to refugee populations.²⁸ In 2016, Greece has seen 149,208 arrivals by sea according to the UNHCR. Additionally,

91 percent of those come from countries where refugees are extremely prevalent.²⁹ Even after reaching their final destination, mine victims face great obstacles and challenges that limit their ability to thrive. In many cases, refugee mine survivors lack official recognition as refugees, mine victims or war victims, and do not achieve citizenship status. Displaced persons with disabilities routinely face insufficient and unequal access to housing, education, health-care and rehabilitation within the refugee camps.³⁰

Africa

South Sudan is heavily mined, which threatens the respective IDP population. The Southern Sudan People's Liberation Army (SPLA) and the Sudan national army planted the vast majority of the mines and UXO during a 21-year civil war that ended in 2005 with the signing of the Comprehensive Peace Agreement. The most contaminated areas include the States of Central Equatoria, Eastern Equatoria, Upper Nile, and Jonglei. Currently, there are 225,286 South Sudanese refugees in Ethiopia, many of whom had to cross these states to secure safety. Thirty-four percent of casualties from mines occurred in Upper Nile State, emphasizing the danger and risks

refugees and IDPs take. The government of South Sudan implemented a National Mine Action Strategic Plan, creating a decentralized and rapid explosive ordnance disposal (EOD) response capacity within the army and the police forces in order to address residual mine and ERW contamination long term.³¹

Other African nations are also currently plagued by mines and their debilitating effects. Notably, Angola has a substantial amount of mine contamination following its long civil war (1975–2002). According to the Global Development Research Group, approximately 2.2 million citizens that live on 75 percent of the territory in Angola are threatened by UXO.³² Particularly hampered by UXO, the province of Moxico is one of the most contaminated and poorest regions, yet the area has seen 8,000 refugees return since 2014. This



More than half of the refugees at Islahiya camp in southern Turkey are children and teenagers.
Photo courtesy of IRIN.

group is at serious risk of injury or death from mines and cannot safely farm their land; the effect on the country's agriculture is significant. For the most part, Angolan farmers can no longer produce coffee, sugarcane, cotton or bananas, forcing the vast majority of the rural population to live below the poverty line.³³ Despite the work of organizations such as The HALO Trust, which has destroyed more than 21,300 mines, thousands of Angolan residents have been killed or injured.³⁴

According to the United Nations, the Democratic Republic of the Congo (DRC) has roughly 120,000 refugees and over 2 million IDPs, all of whom are threatened by the presence of mines.³⁵ There are a substantial number of mines in the Kabalo territory, which was heavily mined during the civil war between 1998 and 2003. A 2011 Mine Action report notes that the large-scale movement of IDPs and refugees trying to return home are threatened by these mines.³⁶ In 2014, 47 people died from mines and there have been a total of 2,540 mine victims in the DRC. There are at least 130 suspected hazardous areas (SHA) and five are suspected to be impacted. At least 130 SHAs are affected by mines, and five areas are impacted by submunitions.³⁷ Somalia is equally littered with UXO. The eastern Somalia-Ethiopia border area is heavily

contaminated with mines that were laid during the 1977 border war. According to the United Nations Mine Action Service (UNMAS), AP mines have caused only four percent of deaths and injuries in Somalia during 2011. In contrast, UXO represents 55 percent of casualties, thus highlighting the severity of the mine issue at present. Some of the effects of the mine proliferation in Somalia are similar to those in Angola, most notably a reduced availability for both livestock and agricultural production. Fortunately, according to the United Nations, the mine issue in Somalia could be resolved within a ten-year period if given proper attention.³⁸

Southeast Asia

Years of protracted violence in Southeast Asia has led to a landmine crisis that is currently being dealt with by both local governments and international agencies. Myanmar is particularly vulnerable. According to the Danish Refugee Council (DRC) and Danish Demining Group (DDG), in Kachin State, IDPs makeup nearly half of all mine casualties.³⁹ In fact, there were 3,450 recorded civilian casualties in Myanmar between 1999 and 2013.⁴⁰ Myanmar has a significant amount of IDPs resulting from more than 50 years of fighting between

ethnic non-state armed groups. By the end of 2013, there were 640,900 IDPs based on U.N. agency figures.⁴¹ Many of the mines are located in Karen State where the Karen ethnic rebels have fought against the Myanmar government for over 50 years. Due to lack of adequate healthcare, many mine survivors travel across the Thailand border to receive treatment.⁴²

Sri Lanka is another nation facing landmine problems. The 25-year civil war between the government and the Liberation Tigers of Tamil Eelam (LTTE) ended in 2009, displacing 300,000 people. In addition, the conflict left the country's northern and eastern districts heavily contaminated by UXO. This has prevented many IDPs from returning and rebuilding their lives. As of 2012, more than 467,500 IDPs returned to the north and east; however, many are resettling beyond the areas that were cleared of mines, thus remaining in critical danger.⁴³ Victim-activated IEDs pose a tremendous risk to refugees, IDPs, migrants and civilians.

Conclusion

Regardless of the reasons for migration, IDP and refugee populations are at a heightened risk of injury or death from mines, IEDs and UXO for several reasons. First, the vast majority are civilians who are typically unaware of the life-threatening dangers that mines, IEDs and UXO pose. Second, many of the refugees, IDPs and migrants cross unfamiliar territory in order to reach their destinations. The terrain is often difficult, and mines may be strategically located in the areas most frequented by IDPs. As such, they do not know where mines were deployed, IEDs utilized, or the location of UXO blinds or stockpiles.⁴⁴

These populations are moving, which places them at a much greater risk than if they were sedentary. The movement of refugees, IDPs and migrants is currently occurring in war or conflict zones such as Afghanistan, Iraq, South Sudan and Syria.

- * Victim-activated IEDs caused almost two-thirds of all Afghan casualties in 2014.
- * 809 IED casualties were reported in Afghanistan in 2014 as compared to 557 IED casualties in 2013.
- * Victim-activated IEDs, including homemade mines and booby-traps, were found throughout Kobani, Syria, in 2015.
 - At least 40 deaths and significantly more injuries caused by these mines were reported in the first quarter of 2015 in the villages surrounding Kobani.
- * In 2015, IEDs were reported to be the leading cause of death among the 750 Kurdish Peshmerga forces in Iraq killed between June 2014 and January 2015.⁴⁵

Until stability is achieved, the number of deaths due to UXO and mines will continue to rise. The armed conflicts are destabilizing these countries and hindering the ability of governments and international humanitarian organizations to implement and execute plans for mine eradication effectively. With the help of international humanitarian law and international human rights law, states have started to recognize and commit to addressing the needs of displaced persons as well as mine victims.⁴⁶ Ensuring the future success of programs will require focused and cooperative dialogue among national governments, in-country factions and outside organizations. ©

See endnotes page 66

Kenneth R. Rutherford, Ph.D.

Director
Center for International Stabilization and Recovery
James Madison University, MSC 4902
Harrisonburg, VA 22807 / USA
Tel: +1 540 568 2756
Email: rutherkr@jmu.edu
Website: <http://jmu.edu/cisr>



Ken Rutherford, Ph.D., is director of the Center for International Stabilization and Recovery and a professor of political science at James Madison University. He holds a doctorate from Georgetown University (U.S.) and received his Bachelor of Arts and Master

of Business Administration from the University of Colorado, Boulder (U.S.). His most recent book, *Disarming States: The International Movement to Ban Landmines*, was published in December 2010. He also authored *Humanitarianism Under Fire: the US and UN Intervention in Somalia* and co-edited two books—*Landmines and Human Security: International Politics and War's Hidden Legacy* and *Reframing the Agenda: the Impact of NGO and Middle Power Cooperation in International Security Policy*.

Andrew Cooney

M.S. Conflict Analysis and Resolution
George Mason University
Tel: + 1 585 704 7446
Email: cooneyab@dukes.jmu.edu



Andrew Cooney is a 2016 graduate of James Madison University with a Bachelor of Arts degree in Psychology and a minor in Humanitarian Affairs. Interning this summer at the nonprofit, Global Impact, Andrew will attend George Mason University (U.S.) in Fall 2016 to begin his master's studies at the school of Conflict Analysis and Resolution.