



Organization for Security and  
Co-operation in Europe  
**Special Monitoring Mission to Ukraine**

# THEMATIC REPORT

THE IMPACT OF MINES, UNEXPLODED ORDNANCE  
AND OTHER EXPLOSIVE OBJECTS ON CIVILIANS IN THE  
DONETSK AND LUHANSK REGIONS OF EASTERN UKRAINE

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# EXECUTIVE SUMMARY

Since 2014, the OSCE Special Monitoring Mission to Ukraine (SMM) has been monitoring and reporting on the impact of the conflict on civilians in Donetsk and Luhansk regions of Ukraine. One of the most harmful effects of the conflict are the many mines, unexploded ordnance (UXO), and other explosive objects that contaminate areas where civilians live and work. Most of the contaminated areas are located within the 15km security zone on either side the nearly 500km contact line, which separates government- from non-government-controlled areas. Since the beginning of 2018, the SMM has reported over 10,000 mines, mostly anti-vehicle mines, observed on both sides of the contact line. The purpose of this thematic report is to document the impact of these objects on civilians and their daily lives, covering the period between 1 January 2018 and 31 October 2019.

Out of the 380 civilian casualties confirmed during the reporting period, 133 were due to mines, UXO and other explosive objects, of which 34 were fatalities. Nearly 25 per cent of the casualties were children, many of whom had been killed or injured from explosive objects found in gardens or fields where they play. Mines, UXO and other explosive objects caused more fatalities than shelling and small-arms fire combined. Their presence also restricts civilian freedom of movement, particularly at the government-controlled entry-exit checkpoints (EECP) and the corresponding non-government-controlled checkpoints that civilians have to use to cross the contact line. Their ability to cultivate their land, fish in the lakes and rivers, go to work and school, and even visit cemeteries is severely curtailed by the presence of these objects.

Mine contamination around civilian infrastructure, such as water pipelines and gas distribution stations, many of which are located along the contact line, pose risks to workers who have to access the facilities for repairs and maintenance work and cause delays to these works, further threatening civilian access to water, gas, electricity and telecommunication services.

Shelling and small-arms fire in and around towns and villages near the contact line contaminates these areas with UXO and other explosive objects, including areas around educational facilities, exposing children and school staff to further risk.

To mitigate the risk posed by these explosive objects, some mine risk education (MRE) programmes are conducted. In government-controlled areas, programmes are being conducted by the Ukrainian authorities with the support of the OSCE Project Co-ordinator in Ukraine (PCU) as well as by a variety of international organizations and national and international non-governmental organizations (NGOs). The SMM continues to conduct MRE through outreach activities at schools in government-controlled settlements near the contact line. In non-government-controlled areas, where access and activities of international organizations and NGOs have been limited by the armed formations, the SMM has been informed that mine risk awareness is conducted by the armed formations. The SMM's access has also been limited, and it has only been able to distribute outreach material in settlements close to the contact line.

The SMM noted limited progress on demining as per commitments made in the Trilateral Contact Group (TCG) Decision on Mine Action of March 2016 to mark and fence off areas to be cleared of mines and to facilitate the provision of mine-risk education to civilians. A positive development has been the adoption of the law on “Mine Action in Ukraine” on 6 December 2018. The law came into force on 25 January 2019 and provides a legal framework for the development of policies and programmes for mine action. Its implementation will be crucial to respond to the long-term consequences of the conflict connected to mines and UXO.

# INTRODUCTION

One of the effects of the conflict in Donetsk and Luhansk regions has been the contamination of around 15,000km<sup>2</sup> of land with mines and other explosive objects, severely affecting the lives of thousands of civilians.<sup>1</sup> Outside the reporting period, one SMM Mission member was killed and two were injured when their vehicle triggered an explosive object, likely a mine, while they were performing their monitoring duties on 23 April 2017 near non-government-controlled Pryshyb, in Luhansk region.

This report presents the impact of mines and other explosive objects on the civilian population in the conflict-affected areas of Donetsk and Luhansk regions from 1 January 2018 to 31 October 2019. Following a summary of the commitments made by the sides in relation to the removal of mines, the report provides an overview of the impact of mines, UXO and other explosive objects on

civilians focusing on casualties, freedom of movement, the repair and maintenance work to vital civilian infrastructure, and access to educational facilities. It concludes with an overview of the impact of mines and other explosive objects on the freedom of movement of the SMM and the mine-risk-education activities conducted by the Mission.

The data presented in this report is based on direct observations made by the SMM's Monitoring Officers and accounts of civilians that they met during their patrols in the conflict-affected areas of Donetsk and Luhansk regions. It is also based on the information gathered via the SMM's technical monitoring means, such as unmanned aerial vehicles (UAV).

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<sup>1</sup> Other explosive objects include UXO, ammunition, grenades, booby traps and improvised explosive objects.

# FRAMEWORK OF OBLIGATIONS AND MECHANISMS FOR IMPLEMENTATION

The signatories of the Memorandum of 19 September 2014 agreed to prohibit the installation or laying of mines in a 30km-wide security zone around the contact line, and to remove existing mines from the area.<sup>2</sup> In the TCG Decision on Mine Action of 3 March 2016, the signatories agreed on a list of priority areas to be cleared of mines, which they committed to mark, fence off and map, as well as on the need to facilitate the provision of MRE to civilians. The 12 priority areas mainly encompass civilian infrastructure sites.<sup>3</sup> The SMM conducts monitoring of the priority areas through its patrols and via remote observation with its technical means.

The issue of mine action has consistently been on the agenda of the Working Group on Security Issues (WGSI) of the TCG. The SMM Chief Monitor, in his capacity as the Co-ordinator of the WGSI, has continuously emphasised the importance of mine action in other key areas, an effort that has resulted in some activities being carried out by deminers near educational facilities on both sides of the contact line. However, the SMM has yet to receive any answers to the Chief Monitor's letters to the signatories of the Minsk agreements on 5 May 2017, 13 April 2018, and, most recently, on 7 March 2019, calling for the provision of information on all areas suspected or confirmed to be contaminated by mines and UXO.

Overall, the Mission has noted little progress on the clearance of mines, UXO and other explosive objects. On over 250 occasions, the SMM has brought information about the location of mines and UXO that presented a particular danger to civilians, including to the SMM, to the attention of Ukrainian representatives to the Joint Centre for Control and Co-ordination (JCCC)<sup>4</sup> as well as to members of the armed formations in Donetsk and Luhansk regions and has asked for them to be removed.<sup>5</sup> However, there is currently no established body or mechanism to co-ordinate mine-clearance activities on either side of the contact line, or for verification that they have been completed.

On 6 December 2018, the Ukrainian Parliament adopted the law on "Mine Action in Ukraine" which entered into force on 25 January 2019, providing, for the first time, a legal framework for humanitarian mine action in Ukraine. Among other provisions, the law establishes an institutional framework for the development and implementation of policies and programmes for mine action. For instance, it mandates the creation of a National Mine Action Authority responsible for the development of an annual mine action plan, and a Mine Action Operations Centre responsible for the implementation of the government's mine action policy and the coordination of mine action activities.

<sup>2</sup> Article 6 of the Memorandum On implementation of the provisions of the Protocol on the results of consultations of the Trilateral Contact Group, concerning steps aimed at implementation of the Peace Plan of the president of Ukraine, P. Poroshenko, and the initiatives of the president of the Russian Federation, V. Putin:

"Prohibition of the installation or laying of mines within the boundaries of the Safety Zone. All mines previously installed or laid in the Safety Zone must be removed."

<sup>3</sup> The 12 priority areas include: Vuhlehirsk TPS- Mykhailivka, Olenivka; Pivdenodonbasska; Horlivka Vuhlehirsk TPS Makiivka; Karbonit Water Supply Project: north of Pervomaisk; Krasnyi Lyman, north-east of Krasnyi Lyman Luhansk TPS – Yuvileina; Luhansk TPS – Mykhailivka; Maiorsk – Horlivka, Travneve; Hladosove; Zaitseve (Vuhlehirsk power station – Tsentralna #1 ); Travneve, Hladosove, Zaitseve (Vuhlehirsk power station – Tsentralne #2 ); Starobeshivske TES Azovske; and Yasynuvata–Avdiivka platform.

<sup>4</sup> The JCCC was established in September 2014 by Ukraine and the Russian Federation. Each posted a representative to jointly head the Centre and a staff of officers from the Ukrainian and Russian Federation Armed Forces to be co-located in defined sectors of Luhansk and Donetsk regions. In December 2017, Russian Federation Armed Forces officers withdrew from the JCCC and departed Ukraine.

<sup>5</sup> These areas include: E58 between Mariupol and Novoazovsk; T0519 between Pikuzy (formerly Kominternove) and Mariupol; H20 near Yasynuvata northbound to Kamianka; E40/M03 between Svitlodarsk and Debaltseve; the road connecting Verkhnotoretske and Betmanove (formerly Krasnyi Partyzan), a municipal road connecting Zhavynka with the town of Zaitseve; and H21 across the bridge in Shchastia.

The OSCE Project Co-ordinator in Ukraine (PCU) has been supporting the Ukrainian authorities by sharing best practices on international mine action standards and building agencies' technical capacities to enable the creation of functional mine action system. On 25 April 2019, an amendment to the law was adopted relating to the process by which mine action organizations receive funding from international donors. There was no funding allocated for the implementation of the law in 2019 as it was passed after the 2019 budget had been approved. However, 5 million UAH (around 185,000 Euro) in funding has been allocated in the 2020 budget, which was approved on 14 November 2019 under the responsibility of the Ministry of Veterans, Temporarily Occupied Territories and Internally Displaced Persons of Ukraine to reduce the social, economic and environmental impact of explosive objects on the lives and activities of the population and on informing the public of the dangers posed by explosive objects.



# PRESENCE OF MINES AND UXO IN EASTERN UKRAINE

The United Nations Office for the Co-ordination of Humanitarian Affairs (OCHA) notes that Ukraine remains one of the most heavily mine-contaminated countries in the world.<sup>6</sup> According to the Ukrainian Ministry of Defence, over 7,000km<sup>2</sup> of land in government-controlled areas and 8,000km<sup>2</sup> in non-government-controlled areas is contaminated by mines, UXO, and other explosive objects.<sup>7</sup> Most of the contaminated areas are located within the 15km security zone on either side of the contact line. Since the beginning of 2018, the SMM has reported over 10,000 mines, mostly anti-vehicle mines, observed on both sides of the contact line which stretches around 500km. Mines have been observed around government-controlled EECPs and the corresponding checkpoints of the armed formations, in settlements and agricultural areas, as well as within and near the three disengagement areas.<sup>8</sup>



OSCE SMM Monitoring Officer in eastern Ukraine

Dangers also emanate from ordnance fired from artillery, mortars and other weapons,

which land in fields, on roads or in urban areas and fail to detonate as intended. While it is uncertain how many rounds of ammunition failed to detonate and now pose a risk to civilians, including SMM personnel, during the period covered by this report, the SMM has reported over 560,000 ceasefire violations along the contact line.

The prevalence of UXO and other explosive objects does not follow a regular pattern and are reported by the SMM almost daily. For example, in March 2019, the SMM observed four pieces of UXO, assessed as parts of multiple launch rocket system rounds, embedded in asphalted roads in populated areas near the non-government-controlled Donetsk central railway station. On many occasions, the Mission has seen UXO along road T-0504 between government-controlled Popasna and non-government-controlled Molodizhne, one of the few vehicular routes used by the SMM to cross the contact line in Luhansk region. For example, in June 2019, in government-controlled Popasna the Mission saw three mortar tailfins in the middle of the T-0504 road.

While limited demining activities are conducted in contaminated areas, there is no systematic demining effort along the contact line. Demining is mainly conducted in case of emergencies or before the commencement of repairs or maintenance work at civilian infrastructure sites.

<sup>6</sup> OCHA, Eastern Ukraine one of the areas most contaminated by landmines in the world, 4 April 2019, <https://www.unocha.org/story/eastern-ukraine-one-areas-most-contaminated-landmines-world>.

<sup>7</sup> Information provided by the Ukrainian Ministry of Defence, January 2019.

<sup>8</sup> In 2016, the TCG Working Group on Security Issues finalized a framework decision on disengagement between the Ukrainian Armed Forces and the armed formations. It also reached agreement on three areas for disengagement (Stanytsia Luhanska and Zolote in Luhansk region, and Petrivske in Donetsk region). On 21 July 2019, the Mission observed the beginning of disengagement in the Stanytsia Luhanska disengagement area, which was followed by mine clearance. On 29 October 2019, disengagement began in the Zolote and Petrivske disengagement areas.

However, as part of the disengagement process, the Ukrainian authorities and the armed formations have been conducting demining activities at the three disengagement areas. Following the TCG's Framework Decision on Disengagement of Forces and Hardware of 21 September 2016, since 26 June 2019, the SMM observed demining teams from both government- and non-government-controlled areas conducting demining activities in an area of a 125m radius from the middle of broken section of the Stanytsia Luhanska bridge, which the signatories had agreed to clear from mines and UXO. At the end of the reporting period, the SMM observed the commencement of similar activities inside the two other disengagement areas near Zolote and Petrivske, following the agreement reached in the TCG on 1 October 2019.

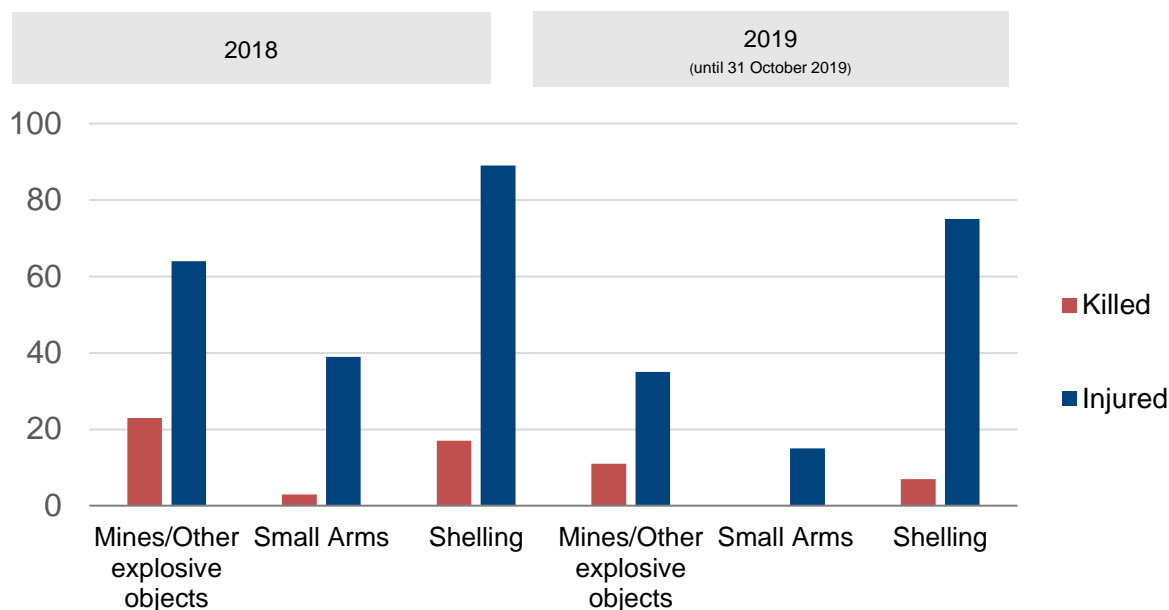


Mine-contaminated field in eastern Ukraine

Mine hazard signs have also been put up by the Ukrainian Armed Forces and by the armed formations. International organizations have also donated mine hazard signs and either plant the signs themselves in the areas where they operate or have them installed by Ukrainian authorities or by the armed formations. However, the majority of potentially contaminated areas remain unmarked, and insufficient efforts are being made by the Ukrainian authorities and the armed formations to mark these areas, endangering civilians.

# CIVILIAN CASUALTIES DUE TO MINES AND OTHER EXPLOSIVE OBJECTS

Civilian casualties 1 January 2018 to 31 October 2019



Civilian casualties are the most egregious impact of the conflict. Civilians have been killed or injured by shelling, small-arms fire, mines, UXO and other explosive objects.

In the reporting period, the SMM corroborated 380 civilian casualties in the conflict-affected areas of Donetsk and Luhansk regions: 238 in 2018 and 142 in the first ten months of 2019.<sup>9</sup> While casualties due to shelling and small-arms fire occur almost exclusively close to the contact line, civilians have been injured by mines and UXO as far away as 60km from the contact line (see map below).

Mines and other explosive objects have caused 133 of the 380 casualties (34 killed and 99 injured) – 87 in 2018 and 46 in the first ten months of 2019 – and are responsible for

a higher number of fatalities than shelling and small-arms fire combined.<sup>10</sup> Nearly 55 per cent of civilians killed in 2018, and 11 of the 18 civilian fatalities confirmed in 2019, have been due to mines and other explosive objects. The majority of civilian casualties due to mines and other explosive objects (75 per cent) have occurred in Donetsk region.

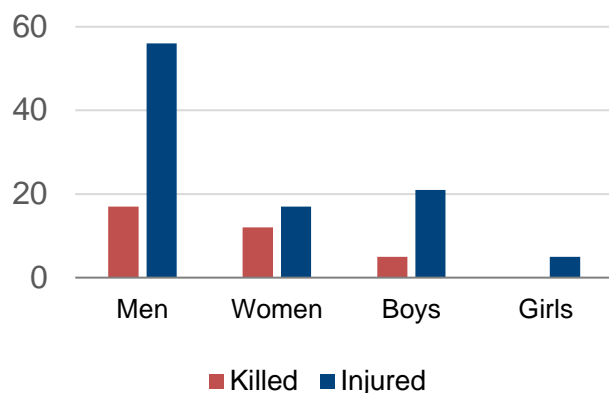
Out of 133 civilians killed and injured by mines and other explosive objects during the reporting period, 73 have been adult men, 29 were women, 26 were boys and five were girls.

Civilians have been killed and injured by these objects in a wide variety of circumstances and environments.

<sup>9</sup> The number of civilian casualties in 2019 is as at 31 October 2019.

<sup>10</sup> In many instances, the SMM is unable to determine the type of explosive object that has caused the death or injuries to civilians as the object has disintegrated or the SMM does not have access to the site, especially if it is an area suspected of being contaminated by mines or other explosive objects. The SMM relies on testimony from victims and other interlocutors, particularly medical staff who treated the victim.

**Civilian casualties due to mines and other explosive objects disaggregated by sex and age, 1 January 2018 to 31 October 2019**



In the majority of incidents involving children, ammunition or explosive objects had been found in areas near to where they live or play, such as gardens or wooded areas.

Some civilians have been killed or injured by anti-personnel and anti-tank mines in fields while grazing cattle or engaging in agricultural work, along river banks, as well as along roads near EECs and checkpoints. In April 2018, in government-controlled Pishchane, a husband and wife (in their fifties), and their son and his fiancé (in their twenties) were killed when the car they were traveling in hit an explosive object, likely an anti-tank mine. The incident took place around 300m from their house, close to the Siverskyi Donets River, which forms part of the contact line in Luhansk region. In September 2018, a 55-year-old man sustained injuries resulting in the loss of his foot when he triggered a mine along the riverbank of the Kalmius River near non-government-controlled Maiorove (formerly Krasnyi Oktiabr) in Donetsk region. In September 2019, two women, who had been displaced from their homes in non-government-controlled Spartak, had returned to check up on their apartments. While in the

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“They were walking around the old train station Terykonna near Horlivka, to play and look for adventure, he told me. At some point, they triggered an object that killed his three friends and injured him. He is now receiving treatment in the hospital”

— Grandfather of a ten-year-old boy injured by an explosive object on 30 September 2018 near non-government-controlled Horlivka

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yard of a building in the settlement, one of the women stepped on an object that exploded, killing her and severely wounding the other.

The Mission has also confirmed and documented cases where civilians, including children, have found unspent ammunition or UXO and have detonated them while mishandling or dismantling, including to extract parts to sell for scrap metal or to make into souvenirs. For example, in April 2019, a 62-year-old man in government-controlled Dmytrivka found a 7cm-long cartridge in the scrap metal yard where he worked. He took the object home and attempted to cut it with an electric saw when it exploded causing injuries to his face and hands. In another case in July 2018, in non-government-controlled Horlivka, two boys (12 and 7 years old) were injured in their grandmother’s house when a grenade that they were playing with exploded. Their grandmother was also hospitalized after suffering injuries due to the explosion. At the end of September 2019, five children, three boys and two girls, all between the ages of seven and 12, were injured in non-government-controlled Chornohorivka when a grenade they had found detonated. In October 2019, a 12-year-old boy was injured in non-government-controlled Budonnivskiy after detonating a piece of ammunition that he had found while fishing.

### Civilian casualties

Civilian casualties due to mines, unexploded ordnances (UXOs), and improvised explosive devices (IEDs)

01 January 2018 - 31 October 2019

#### Civilians killed by mines/UXOs/IEDs

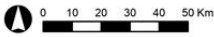
- 1
- 2 - 4
- 5+

#### Civilians injured by mines/UXOs/IEDs

- ☹ 1
- ☹ 2 - 4
- ☹ 5+

#### Other features

- Estimated line of contact
- Settlement
- Regional boundary
- National boundary



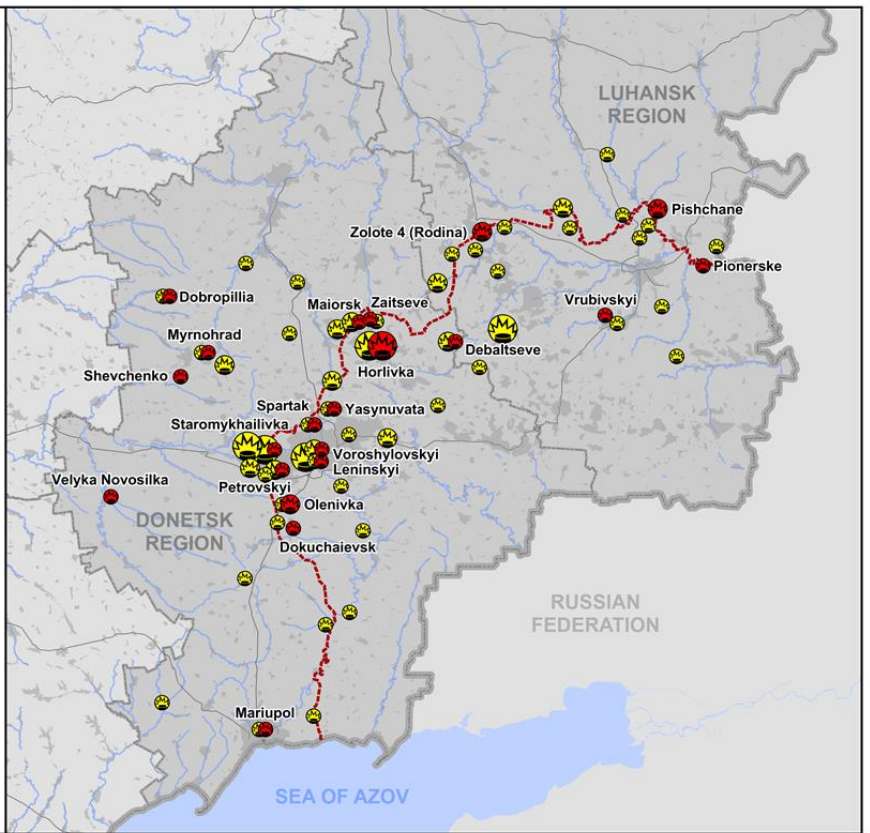
Sources: Administrative boundaries, symbols - OCHA; Roads, Rivers - OpenStreetMap; Sea - VLIIZ (2005), IHO sea areas; Other - OSCE.

Coordinate system: WGS 1984 UTM Zone 37N

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# IMPACT OF MINES AND OTHER EXPLOSIVE OBJECTS ON CIVILIAN FREEDOM OF MOVEMENT

The presence of mines and other explosive objects affects the freedom of movement of people living in conflict-affected areas of Donetsk and Luhansk regions. Their ability to visit family, cultivate their land, fish in the lakes and rivers, and even visit cemeteries is severely curtailed by the presence of these objects. The following section outlines the challenges civilians face due to contamination around EECPs and the corresponding checkpoints, agricultural areas, rivers and riverbanks, and cemeteries.

## Mines and unexploded ordnance near EECPs and checkpoints

Civilians are only allowed to cross the contact line at five government-controlled EECPs and corresponding non-government-controlled checkpoints – the pedestrian EECP near government-controlled Stanytsia Luhanska, in Luhansk region, and the four vehicular and pedestrian EECPs near government-controlled Maiorsk, Marinka, Novotroitske, and Hnutove, in Donetsk region (see map below) (for more information, see the SMM thematic report on [Entry-exit checkpoints and corresponding checkpoints](#), November 2019).<sup>11</sup> Each year, since 2016, there has been a steady increase in the number of civilians crossing between government- and non-government-controlled areas.<sup>12</sup>

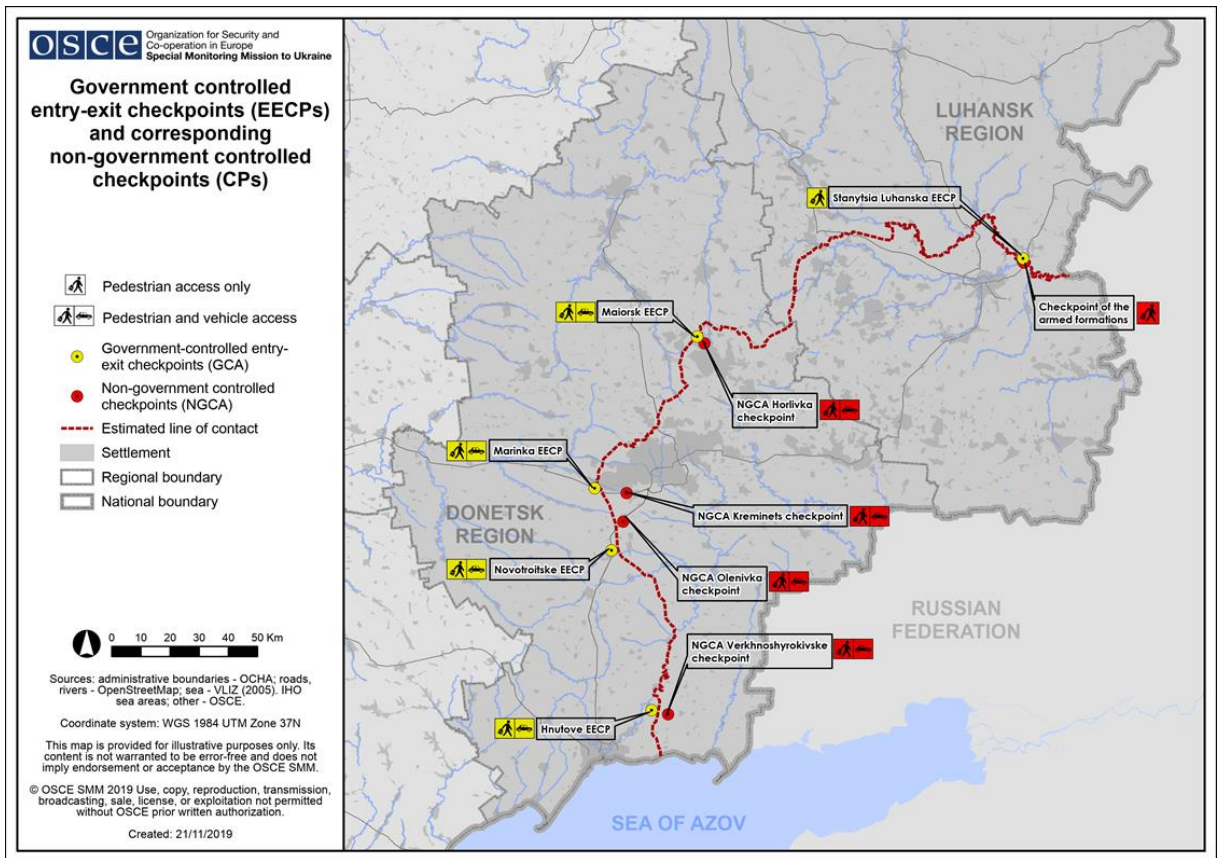
The roads leading to EECPs and the corresponding checkpoints are contaminated

by mines and UXO. For example, over the week of 4–11 May 2019, the Mission observed more than 3,000 anti-vehicle mines near government-controlled Pyshchevyk, which is located 200m west of the Hnutove EECP. Two of the most contaminated zones in government-controlled areas include Berezove and Marinka, both in Donetsk region. Berezove lies about 3km away from the contact line and 500m from highway H-20 leading to the EECP near Novotroitske, while Marinka is home to around 9,000 civilians and lies on the contact line just 1km from the Marinka EECP. Oleksandrivka and Olenivka are also two heavily contaminated areas located close to the non-government-controlled Kreminets and Olenivka checkpoints.

Around the EECPs and the corresponding checkpoints of the armed formations, the SMM has observed mine hazard signs; however, more work needs to be done to demarcate hazardous areas, in particular, in the areas of these crossing sites located between the forward positions of the Ukrainian Armed Forces and of the armed formations where there is limited basic infrastructure and medical facilities. Should a civilian be injured by a mine or other explosive objects in these areas, it could take a considerable amount of time before he or she is evacuated to the nearest checkpoint where first aid can be provided.

<sup>11</sup> Each government-controlled EECP has a corresponding armed formation's checkpoint: for the Stanytsia Luhanska EECP the armed formations' checkpoint is also named as such, for the Maiorsk EECP the corresponding checkpoint is near non-government-controlled Horlivka, for the Marinka EECP it is near non-government-controlled Kreminets, for the Novotroitske EECP it is near non-government-controlled Olenivka, and for the Hnutove EECP (near Pyshchevyk) it is near non-government-controlled Verkhnoшыrovkivske.

<sup>12</sup> According to data from the Ukrainian State Border Guards Service, in 2018 there were 13.6 million crossings compared with 8.5 million crossings in 2016.

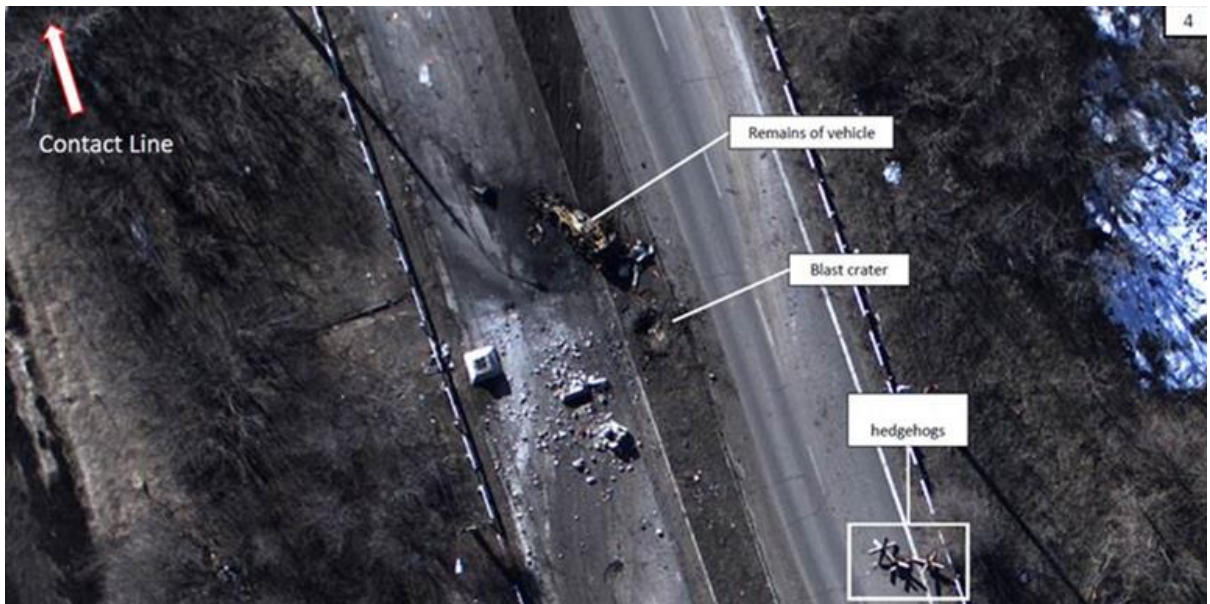


Mines or explosive objects have resulted in four civilian casualties at the EECP corridors and other checkpoints during the reporting period. In March 2018, a woman’s car skidded off the road near a checkpoint of the armed formations in non-government-controlled Zolote-5/Mykhailivka and detonated an explosive object, causing injuries to her wrist. In February 2019, a 59-year-old man and his 86-year-old mother had crossed the contact line from non-government- to government-controlled areas at the EECP near Novotroitske to collect their pensions. On the way back, the mini-van they were travelling in struck an explosive object, likely an anti-tank mine, close to the corresponding checkpoint of the armed formations near Olenivka, killing the 35-year-old male driver and the woman (see image below). Despite the severity of this incident, on 24 March 2019, the SMM saw seven unmarked anti-tank

mines in a field near non-government-controlled Olenivka, next to the same highway that thousands of civilians use to reach the abovementioned checkpoint.

“As we were approaching the checkpoint near Olenivka, the taxi driver decided to switch lanes and while driving on the soft ground, an explosion occurred. The driver was killed on the spot; I sustained injuries, while my mother passed away on the way to the hospital”

— A 59-year-old man injured by an anti-tank mine near the checkpoint of the armed formations near Olenivka on 23 February 2019



SMM UAV imagery of the aftermath of the 23 February 2019 mine incident near the checkpoint of the armed formations near Olenivka, Donetsk region

To mitigate the impact of these objects on civilians, the SMM regularly engages with the Ukrainian Armed Forces and with the armed formations for the removal of mines and explosive objects along roads and in areas frequented by civilians and the SMM's patrols. For instance, in November 2018, the SMM liaised with the State Emergency Service (SES) of Ukraine for the removal of the remnants of a 120mm mortar round on road H-15 near the Marinka EECP.

Thousands of civilians, as well as SMM Monitoring Officers, cross the contact line at this EECP on a daily basis. The SMM also facilitated demining activities along the same road at the beginning of April 2019. In non-government-controlled areas, in November 2018, the SMM saw an anti-personnel mine

(MON 100-type) located about 1.5km west of the non-government-controlled Verkhnoшыrokyvske checkpoint. It was fastened to a tree about 1.5m above the ground on a road that is frequently used by civilians and the Mission. The SMM liaised with the armed formations and by February 2019, the object had been removed. However, it should be noted that despite these efforts, mines and other explosive objects continue to contaminate the roads that thousands of civilians use every day. The Ukrainian authorities and the armed formations need to fulfil their commitments to clear these areas and improve the safety of civilians crossing the contact line.



## Agricultural lands

Agriculture represents a significant part of the livelihoods and sustenance of residents in both Donetsk and Luhansk regions. According to the Donetsk Regional State Administration, there are 2.4 million hectares of agricultural land in the region, out of which around 1.5 million hectares are in government-controlled areas.<sup>13</sup> According to the Luhansk Regional State Administration, there are 1.9 million hectares of agricultural land, out of which around 1.4 million hectares are in government-controlled areas.<sup>14</sup> No maps have been provided of the total area of agricultural land that has been mined or contaminated with other explosive objects. However, the five civilian casualties confirmed in these areas during the reporting period, images from the SMM's UAVs and accounts from civilians indicate extensive contamination on both sides of the

contact line.

Mines and other explosive objects have resulted in five civilian casualties in farms or areas where civilians had taken their livestock for grazing. In April 2018, a 41-year-old farmer sustained minor injuries to his head and neck when he detonated an explosive object while working the land on his tractor, which was destroyed by the explosion. The man's farm is located around 500m east of the contact line near non-government-controlled Yasne. In July 2018, a 47-year-old man sustained injuries to his left foot and eye when he detonated an explosive object while driving his tractor in government-controlled Hranitne, 400m from the contact line. More recently, in June 2019, in a cultivated field south of government-controlled Popasna, two men were injured when the tractor they were driving hit an object that exploded.



Anti-tank mines near recently cultivated land, 1.5km from the contact line near government-controlled Pavlopil

<sup>13</sup> Donetsk Regional State Administration, Investment profile of Donetsk region, 2018 (<https://dn.gov.ua/>)

<sup>14</sup> Luhansk Regional State Administration, Investment profile of Luhansk region, 2018 (<http://loga.gov.ua/>)

During the reporting period, the SMM learned that some communities on both sides of the contact line had stopped cultivating certain sections of farmland due to the threat posed by mines and other explosive objects. In March 2018, the head of the village council in government-controlled Talakivka told the SMM that 20 per cent of the arable land in the village could not be used due to the presence of mines. In one instance, in government-controlled Starohnativka, villagers told the SMM that they had taken it upon themselves to demine their land and mark off areas where they had found mines or other potentially explosive objects. Even when demining work has been conducted on the land, some civilians reported that they were still reluctant to resume working there. For example, in November 2018, a local farmer in non-government-controlled Vesela Hora who owned 30 hectares of land told the SMM that many farmers were not convinced of the veracity of any information they receive regarding mine clearance and were nervous to start using their land again. Despite the presence of mines and other explosive objects, according to the United Nations Protection Cluster in Ukraine, civilians continue to pay taxes on land they are unable to cultivate, such as in government-controlled Novotroitske, Halytsynivka, Mykolaivka, Starohnativka, Pavlopil and Hranitne.<sup>15</sup>

## **Contaminated rivers and riverbanks**

As with the contamination of agricultural areas, the mining of riverbanks and rivers and the potential presence of UXO imposes another hazard and affects the economic situation of civilians who use the waterways for fishing or other purposes.

In the reporting period, the Mission corroborated nine civilian casualties, including two fatalities in areas near waterways in Donetsk and Luhansk regions. In July 2018, a 39-year-old woman was killed along the banks of the Siverskyi Donets River near non-government-controlled Pionerske when she triggered an explosive object. In September 2018, a 55-year-old man was fishing along the Kalmius River near non-government-controlled Boikivske (formerly Telmanove), when he stepped on an explosive object, likely a land mine, resulting in the loss of his foot. In May 2019, a 32-year-old man was killed when he attempted to dismantle an object he had found along the banks of the Mokri Yaly River near government-controlled Velyka Novosilka, 56km west of the contact line. According to the local police, the man collected scrap metal for a living and had brought the object home. More recently, in October 2019, a 33-year-old man in non-government-controlled Krasnyi Yar suffered injuries resulting in the amputation of part of his right leg. The man had triggered an explosive object along the banks of the Siverskyi Donets River where he had been fishing.

In November 2018, a woman from government-controlled Chermalyk told the SMM that the area around the banks of the Kalmius River, along which the settlement is located and which forms part of the contact line, is considered dangerous by residents of the village due to the presence of mines and UXO. However, she noted that some civilians still fish in the river. In March 2019, a couple in their thirties in non-government-controlled Naberezhne, which lies across the Kalmius River from Chermalyk, told the SMM that they do not allow their children to wander near the river due to the presence of mines and UXO.

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<sup>15</sup> Protection Cluster Ukraine, Factsheet, June 2019, [www.humanitarianresponse.info](http://www.humanitarianresponse.info)

## Mines and other explosive objects in and near cemeteries

Civilians on both sides of the contact line continue to visit cemeteries, particularly around religious holidays. The SMM has noted the presence of mines and UXO in cemeteries on both sides of the contact line. One of the reasons these areas become contaminated with UXO is their proximity to positions of the Ukrainian Armed Forces and armed formations.

Mines and other explosive objects have resulted in the deaths of two individuals and injuries to six others in or near cemeteries. In July 2018, a 17-year-old boy and an 18-year-old woman were killed when one of them detonated an explosive object near the cemetery in the Michurina neighborhood of non-government-controlled Horlivka. In another incident in government-controlled Verkhnotoretske, in April 2019, a woman and her husband were tending to graves at the local cemetery when an unidentified object exploded causing injuries to their faces and hands. Between May and October 2019, three women and one man were injured in two separate incidents at the Novodivochyi cemetery in non-government-controlled Donetsk city.

In February 2018, the head of the village council in government-controlled Chermalyk told the SMM that they had tried unsuccessfully to have the authorities clear the area near the cemetery of UXO. In April 2019, the SMM saw a mine hazard sign attached to a rope across the road leading to the cemetery and local residents said that they were told by the Ukrainian Armed Forces that they could not access the cemetery due to presence of UXO and mines. In government-controlled

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“On Saturday, 8 April 2019, my husband and I visited the cemetery in Verkhnotoretske, to clean the graves before Easter. We noticed plastic flowers which were not there during our last visit. When my husband was removing them, we heard the sound of a trigger, and an explosion occurred a few seconds later, injuring both of us”

— A 54-year-old woman injured by an explosive object in a cemetery in government-controlled Verkhnotoretske

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Novoluhanske, Ukrainian Armed Forces personnel told the SMM in April 2019 that they do not allow civilians into the cemetery due to the threat of improvised explosive objects and UXO, and stated that they could not remove these objects without detonating them, which would damage the graves. A similar account was provided in non-government-controlled Sakhanka, where two civilians told the SMM that the members of the armed formations had warned civilians against visiting the cemetery. In August 2019, civilians informed the SMM that the Ukrainian Armed Forces restricted civilians' access to the cemetery in government-controlled Zolote-3/Stakhanovets due to the presence of mines. Similar concerns were also raised by civilians in government-controlled Zolote-4/Rodina, as the cemetery is close to the contact line. Also in August 2019, civilians in non-government-controlled Kruta Balka, a village highly contaminated by mines and UXO, told the SMM that the armed formations had restricted civilian access to the cemetery due to security reasons.

Despite the contamination, in some instances, civilians continue to visit the cemeteries.

In January 2018, a priest and an elderly couple told the SMM that they continued to visit a small cemetery near the central railway station in non-government-controlled Donetsk city despite it being heavily contaminated by UXO. In April 2019, an SMM patrol saw a group of six civilians cleaning graves at a cemetery in the Kyivsky district of Donetsk city despite the presence of signs at the entrance warning civilians not to enter.



Figure 7: Demining activities conducted by the SES at a cemetery in government-controlled areas, May 2019

In spring 2019, the Mission facilitated and monitored localized ceasefires in order for the Ukrainian Armed Forces to carry out demining activities in cemeteries in seven settlements in government-controlled areas along the contact line.

# PRESENCE OF MINES AND UXO AROUND CRITICAL CIVILIAN INFRASTRUCTURE

As noted in the Mission's 2018<sup>16</sup> and 2019<sup>17</sup> thematic reports on SMM facilitation and monitoring of infrastructure repair in eastern Ukraine, many important infrastructure objects in Donetsk and Luhansk regions are located along or in close proximity to the contact line (see map below). Civilians on both sides of the contact line rely on this infrastructure for electricity, water, natural gas and communication services. The objects are in frequent need of repairs due to conflict and non-conflict related damage, as well as regular maintenance work. The Mission supports these repairs by facilitating and monitoring adherence to localized ceasefires so that technicians from the utility companies can do the necessary work. During the reporting period, the SMM facilitated repairs to over 100 infrastructure objects, such as water pipelines, gas distribution centres and electricity lines.



Power supply lines near Horlivka, March 2019

The close proximity of these infrastructure objects to the contact line means that in many cases, the areas around them are contaminated with mines and UXO and before repairs can commence, the area has to be inspected and cleared.

Civilian deminers and workers face serious risks while assessing and demining infrastructure sites and conducting repairs. During the reporting period, the Mission reported three incidents where civilian workers have been killed or injured while working near infrastructure sites. In March 2018, a civilian deminer with the SES suffered a concussion and fractured his right wrist after detonating an explosive object while conducting mine clearance activities around the Donetsk Filtration Station (DFS). More recently, in April 2019, an SES deminer was killed and two were injured when they set off an explosive object while engaged in demining work between government-controlled Maiorsk and Shumy. The deminers were working to allow repairs crews to work on the Siverskyi Donetsk Donbass water canal, which services 3.25 million people on both sides of the contact line.

In some cases, the need for demining has caused delays to repairs or maintenance activities.

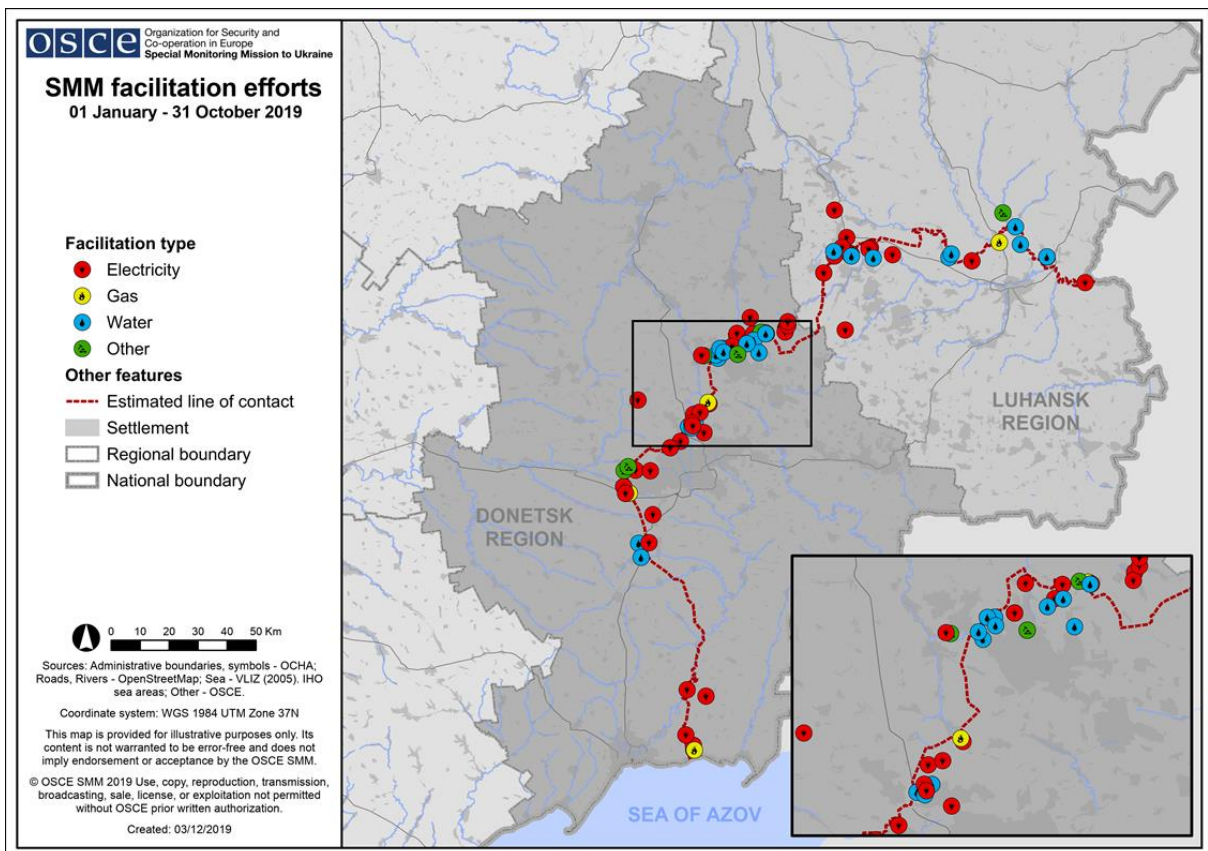
<sup>16</sup> OSCE Special Monitoring Mission to Ukraine, SMM facilitation and monitoring of infrastructure repair in eastern Ukraine January 2017 to August 2018, 6 December 2018, <https://www.osce.org/special-monitoring-mission-to-ukraine/405473>

<sup>17</sup> OSCE Special Monitoring Mission to Ukraine, SMM facilitation and monitoring of infrastructure repair in eastern Ukraine (September 2018 to June 2019), 4 November 2019, <https://www.osce.org/special-monitoring-mission-to-ukraine/437834>

For instance, the Marinka-Krasnohorivka gas pipelines and the Marinka-Krasnohorivka gas distribution station, which supply natural gas to over 20,000 civilians in government-controlled areas, were damaged by shelling in 2014 and are in constant need of repair and maintenance work.<sup>18</sup> They are located between and in close proximity to the forward positions of the Ukrainian Armed Forces and of the armed formations, and are contaminated by mines and UXO. As the areas are in constant threat of shelling and small-arms fire, they have to be inspected and cleared of mines and UXO before every repair work.

own. In October 2018, a man and a woman were killed by a mine in an area between the forward positions of the Ukrainian Armed Forces and of the armed formations near Vilnyi, a neighbourhood located between government-controlled Zolote-4/Rodina and non-government-controlled Zolote-5/Mykhailivka, while attempting to repair a power transformer near the settlement. Due to the high level of mine and UXO contamination in the area, it took five days for international organizations and members of the armed formations to retrieve the two bodies from the area.

These delays have, on occasions, forced residents to try to conduct repairs on their



<sup>35</sup> For more information on the SMM work in facilitating and monitoring repairs to the Marinka-Krasnohorivka gas pipelines and the Marinka-Krasnohorivka gas distribution station see *ibid*, SMM thematic report on SMM facilitation and monitoring of infrastructure repair in eastern Ukraine (September 2018 to June 2019).

At some sites, demining activities have to be conducted on a regular basis so that workers operating the infrastructure objects can reach them. For example, the DFS, which supplies water to approximately 378,000 civilians on both sides of the contact line, is located between the positions of the Ukrainian Armed Forces and of the armed formations and is an area often affected by shelling and small-arms fire. As a result, regular demining activities have to be conducted to clear the road leading to the DFS.

In June 2018, the Mission had to cancel a patrol, which was monitoring adherence to the ceasefire to enable the daily transport of workers to the DFS, due to the presence of anti-tank mines on road H20. After the April 2019 incident near Maiorsk, described above, the company decided to postpone repairs to the Siverskyi Donetsk Donbas water canal and the SMM had to withdraw its patrols due to the threat posed by mines and UXO. In another case, a Voda Donbassa water company representative told the SMM that in order to repair a water pipeline near the industrial zone of government-controlled Avdiivka, deminers would have to accompany the repair crew every day for the seven to eight days necessary to complete the repairs to ensure the area is clear of mines and other explosive objects.

# MINES AND OTHER EXPLOSIVE OBJECTS AROUND EDUCATION FACILITIES AND MINE AWARENESS

Since early 2018, the Mission has observed Ukrainian Armed Forces and armed formations positions or equipment within 1km of 36 educational facilities, 27 in government-controlled areas and nine in non-government-controlled areas. In some instances, military and military-type presence were as close as 100 to 150m to functioning schools and kindergartens. In government-controlled Dmytrivka, the Mission observed a Ukrainian Armed Forces shooting range within 1km of an operational school. Another operational school in non-government-controlled Holubivka is located around 500m from a compound of the armed formations. The proximity of military and military-type positions and equipment not only put the children and staff at risk of coming under shelling or small-arms fire, but also exposes them to the risk of UXO and ammunition that may be present in the vicinity. In October 2018, a 50-year-old woman was blinded in her right eye and suffered injuries to one of her hands when the fuse of a hand grenade exploded while she was clearing leaves near a kindergarten in non-government-controlled Donetsk. In April 2019, students and staff at School No.4 in non-government-controlled Zolote-5/Mykhailivka, which is located 500m from positions of the armed formations, had to take shelter during shelling and could only leave the shelter after a rocket-propelled grenade was removed from the backyard of the school by members of the armed formations.

Of the 31 child casualties due to mines and other explosive objects, 24 were cases where children had picked up UXO, unspent ammunition or grenades that detonated while they were playing with it.

This highlights the need to provide children and civilians at large with education on the risk posed by these objects.

During the reporting period, staff at education facilities in Donetsk and Luhansk regions, on both sides of the contact line, told the Mission of mine awareness programmes being conducted for staff and students. In government-controlled areas, the programmes are conducted by Ukrainian authorities with the support of a variety of international organizations and NGOs. For example, the secretary of the village council in Luhanske told the SMM that school teachers provide mine awareness training to pupils twice a week as the area around the village has not been fully demined. In August 2019, the head of the Bilolutsik village council stated that a civilian demining organization was conducting mine risk awareness programmes for schoolchildren and had planned to continue the programme in the 2019–2020 school year.



Remnants of munitions collected from the school premises in non-government-controlled Oleksandrivka



In non-government-controlled areas where the access and activities of international organizations and INGOs have been limited by the armed formations, the SMM has been informed that mine risk awareness is conducted by the armed formations. In Panteleimonivka, a resident of the village told the Mission that firefighters were conducting mine awareness courses at schools and kindergartens.

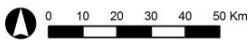
At the beginning of 2019, the Ukrainian government and the armed formations agreed to provide security guarantees for inspection and demining activities to take place within a

radius of 1km around educational facilities located close to the contact line and other potentially contaminated areas. As a result, between 6 and 12 February 2019, the SMM facilitated and monitored the adherence to the ceasefire to enable demining activities around four schools and three kindergartens in government-controlled Hranitne, Mykolaivka, Zolote-4/Rodina and Stanytsia Luhanska and three schools and two kindergartens in non-government-controlled Holmivskyi and Olenivka. This notwithstanding, the SMM cannot confirm whether or not these areas are free of mines or UXO.

**SMM facilitation efforts for inspection and de-mining at educational facilities 2019**

**AREA - Status**

- GCA - Demining performed
- NGCA - Demining performed
- 2018 estimated LoC
- 5 km buffer
- Road
- River
- Settlement
- Regional boundary
- National boundary



Sources: administrative boundaries - OCHA; roads, rivers - OpenStreetMap; sea - VLIZ (2005). IHO sea areas; other - OSCE.

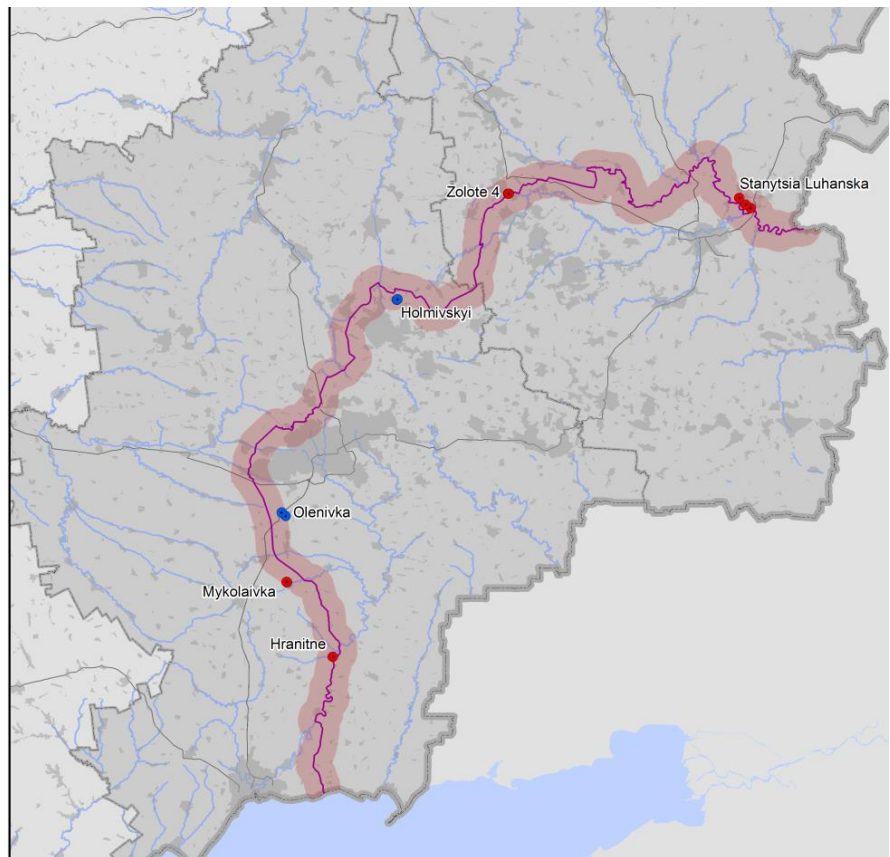
Coordinate system: WGS 1984 UTM Zone 37N

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Classification (Mission circular 171071): OSCE+

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# MINE RISK EDUCATION ACTIVITIES

MRE plays a crucial role in mitigating the dangers of mines and other explosive objects for conflict-affected communities in Donetsk and Luhansk regions. The PCU supports Ukrainian authorities to develop education materials used by various actors in Ukraine, and to train MRE trainers.

The SMM routinely works with INGOs such as the HALO Trust, the Danish Demining Group and the Swiss Foundation for Mine Action (FSD) by exchanging information through bilateral meetings, periodic updates, the United Nations' Mine Action sub-cluster meetings, and workshops. All three organizations have significant experience with mine action in the region and particularly with conducting MRE. The SMM has also designed various MRE outreach materials, which are distributed by patrols in both government- and non-government-controlled areas. In government-controlled areas, the SMM has focused its efforts in distributing outreach material and conducting awareness trainings in schools within 1km of the contact line where there is a significant threat of mines and UXO such as those in Raihorodka, Trokhizbenka, Stanytsia Luhanska in Luhansk region, and in Myrne in Donetsk region. Since the beginning of 2018, the SMM has delivered MRE sessions at over 15 schools and kindergartens, to around 1,000 school children and 35 teachers and school staff.

Due to access restrictions to schools or other relevant structures, the SMM has not yet been able to provide mine risk awareness in non-government-controlled areas.



SMM staff providing MRE at a kindergarten in government-controlled Artema, April 2019

The SMM continues to deliver MRE training sessions and guidance to its staff working in eastern Ukraine.

The SMM also continues to provide MRE and awareness sessions on the International Day for Mine Awareness and Assistance in Mine Action on 4 April. In 2019, SMM staff in Kyiv, Mariupol and Sievierodonetsk, together with other international and non-governmental organizations, participated in outreach events to raise awareness of the risk posed by mines. At the Kyiv event, the SMM also displayed mine awareness materials including replicas of landmines and UXO, as well as information on the activities of the SMM. The SMM distributed more than 2,500 copies of awareness materials, including booklets, calendars and school notebooks. The events were attended by more than 600 visitors in Kyiv, 800 in Mariupol, 700 in Sievierodonetsk, as well as by representatives from the local government and the local media.

The SMM and PCU released a joint statement highlighting the importance of mine action in eastern Ukraine.<sup>19</sup>



International Day for Mine Awareness, Kyiv,  
4 April 2019

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<sup>19</sup> The OSCE SMM Chief Monitor and OSCE Project Co-ordinator in Ukraine highlight the importance of mine action in eastern Ukraine, 4 April 2019, <https://www.osce.org/special-monitoring-mission-to-ukraine/416210>

# IMPACT ON THE SMM'S FREEDOM OF MOVEMENT

The threat from mines and UXO continues to limit the SMM's access to certain roads previously identified as important for effective monitoring by the Mission, thereby impeding the Mission's freedom of movement and the implementation of its mandate. Within the disengagement areas, the Mission's access remains partially restricted despite the demining activities that have been carried out as part of the disengagement process.

The SMM's implementation of its mandate has been further restricted due to the risk of mines and UXO on unpaved road surfaces. Following the fatal incident of 23 April 2017 near non-government-controlled Pryshyb, the Mission limited its patrolling to asphalt or concrete roads.<sup>20</sup> Consequently, the SMM has, on numerous occasions, been unable to follow up on reports of civilian casualties and damage to civilian properties and infrastructure close to the contact line and is unable to access a considerable number of weapons storage sites. For instance, in October 2019, the SMM was following up on a case of 50-year-old man who was injured due to shelling in non-government-controlled Mineralne but could not access the site of the incident due to the lack of paved roads leading to the site. The SMM faced similar impediments when following up on civilian casualties in non-government Zaitseve, the Trudivski neighbourhood of Donetsk city, and government-controlled Novhorodske and Krymske.

Furthermore, the presence of mines, UXO and other explosive objects continues to present a risk to the safety and security of SMM patrols, including on paved roads, for instance on road T-0504 between government-controlled Popasna and non-government-controlled Molodizhne, mentioned earlier in the report. Additionally, in February 2019 in government-controlled Trokhizbenka, the SMM spotted eight anti-tank mines on road T-1315, as well as an anti-personnel fragmentation mine and a grenade placed on a western abutment of a destroyed bridge along the SMM's route.<sup>21</sup> Both cases impeded the SMM's access to the areas.

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<sup>20</sup> See [SMM Spot Report 23 April 2017](#).

<sup>21</sup> See [SMM Daily Report 21 February 2019](#).

# CONCLUSION

The SMM continues to report the presence of mines and other explosive objects in Donetsk and Luhansk regions, many of which were observed for the first time. These objects pose serious safety risks to civilians who are going about their daily lives. It also affects their ability to sustain a livelihood, engage in economic activity, access services and education and restricts their freedom of movement. Of the 133 civilian casualties confirmed by the Mission during the reporting period, nearly 25 per cent were children.

The presence of these objects makes repairs and maintenance work to civilian infrastructure close to the contact line dangerous and difficult, and as noted above, resulted in casualties among civilian demining teams. Demining of contaminated areas around civilian infrastructure sites means that repairs and maintenance to civilian infrastructure takes longer, which lengthens the time that civilians are left without water, electricity or gas. The presence of mines and other explosive objects also poses a threat to the safety of SMM staff and affects the Mission's ability to carry out its mandate by restricting its freedom of movement in the conflict-affected areas of Donetsk and Luhansk regions. The areas in and around the EECPs and corresponding non-government-controlled checkpoints are of particular importance as tens of thousands of civilians, including the SMM, pass through these checkpoints every day.

The Ukrainian government and the armed formations need to adhere to the commitments made in the March 2016 TCG Decision on Mine Action to mark and fence off areas to be cleared of mines, and to provide mine-and UXO-risk awareness training to civilians. The absence of critical information, such as data and maps of areas suspected or confirmed to be contaminated, stalls progress and can create mistrust.

Following the commencement of the disengagement process in June 2019, the SMM has observed demining activities in all three disengagement areas; however, more needs to be done to ensure that the impact of mines and other explosive objects is reduced in all conflict affected-areas in eastern Ukraine.

Continuing to raise awareness of civilians through MRE, including with the support of INGOs, is a crucial way of mitigating the risk posed by mines, UXO and other explosive objects, particularly in areas where access has so far been limited or restricted. The 2018 law on "Mine Action in Ukraine", once implemented, will be a positive step in reducing the impact of mines and UXO, at least in government-controlled areas, as it provides funding and an institutional framework for the development and implementation of policies and programmes for mine action.