

# Landmines in Bosnia and Herzegovina



A visit to the Bosnia Herzegovina Mine Action Center, BHMAC

For Friends of the Earth Flanders and Brussels, the Flemish local department of the biggest environmental organization worldwide, I visited the Bosnia Herzegovina Mine Action Center (BHMAC) in Sarajevo. The center conducts mine action to re-establish a safe environment in a country that is heavily impacted by landmines, a consequence of the 1992-1995 war. This report describes the humanitarian, environmental and economic impacts of landmines in Bosnia Herzegovina. For a couple of days in July 2007 I had the opportunity to take an extensive look at the activities of the BHMAC: mine clearance, mine risk education, mine victim assistance and the guidance of people living in mine-impacted communities. Although the war has been over for more than 10 years now and the mine clearance is ongoing, it will still take many years before the country is finally free from landmines.

Dascha van Beurden  
Friends of the Earth Flanders and Brussels  
[dascha@motherearth.org](mailto:dascha@motherearth.org)

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*‘Although landmines are not considered weapons of mass destruction, there are more people killed by landmines than by chemical and nuclear weapons together’ (A. Berhe).*

## Landmines

A landmine is an explosive device that is placed on or in the ground and designed to explode by the presence or proximity of a person, animal or vehicle. It is believed that about 80-110



million landmines are spread in more than 90 countries. They injure or kill a civilian every 30 minutes, which is about 18,000 people a year.

Landmines are cheap weapons; they only cost 2.50 Euro to manufacture, but clearance costs between 250 and 800 Euro per mine. It is estimated that even if the deployment of landmines were to stop immediately, the clearance worldwide would cost

about 25 million Euro and would take 1100 years. Unfortunately it is believed that 20 new mines are laid for every mine that is cleared. Landmines are produced as 'weapons of war', but in fact only 10 percent of landmine victims are soldiers. The presence of landmines in a country is one of the most socially, environmentally and economically damaging legacies of war that the world is facing today. Boutros Boutros-Ghali, the former secretary of the United Nations, acknowledged that landmines are amongst the biggest problems of our times. Examples of mine-affected countries are: Mozambique, Malawi, Nicaragua, Afghanistan, Cambodia, Iraq, Croatia and Bosnia Herzegovina.

## Landmines in Bosnia Herzegovina

Bosnia Herzegovina is located in the South East of Europe. In 1992 the state became independent of Yugoslavia and immediately afterwards entered into a 3.5 year war as a consequence of the instability in the wider region of the former Yugoslavia. Approximately 250,000 civilians were killed and there was an outflow of about 800,000 refugees. During this war numerous landmines, originating mostly from the former Yugoslavian People's Army, were deployed to secure borders and to restrict enemy movement. Some areas have been mined after the war; mostly to prevent the return of refugees. Minefields can still be found across most parts of the country, since they were laid along conflict lines that often changed. The war ended in the winter of 1995 with the Dayton Peace Agreement. From then on the country has been divided into two entities: the Federation of Bosnia Herzegovina (FBIH) and Republica Serbska (RS), both with their own constitution and government.

In July 2007 I visited the Bosnia Herzegovina Mine Action Center (BHMAC) in Sarajevo to gather information on the impact of landmines in this country. Svjetlana Trifković, the PR-officer gave me a warm welcome, guided me through the center and introduced me to her colleagues. She informed me on landmines in Bosnia Herzegovina and how the mine action center is still trying to cope with this problem more than ten years after the war.

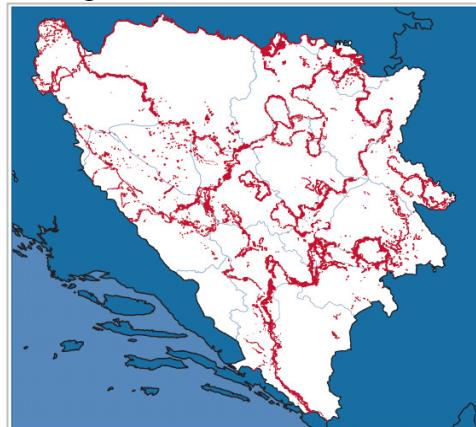
Svjetlana: "This is the most landmine-contaminated country in Europe and among the worst impacted countries in the world. An area with a size of 1820 km<sup>2</sup>, around 3.6% of the total territory, is filled with mines. We estimate that there are still more than



1,000,000 landmines and unexploded ordnance (UXO) to be found in the ground. Almost 5,000 people in this country have been killed or injured by landmines, including 1520 since the end of the war. Bosnia Herzegovina signed the Mine Ban Treaty in 1997, a convention

on ‘*the Prohibition of the Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and on Their Destruction*’.”

Svetlana informed me about the BHMAC, saying “our mission is to re-establish a safe environment for the citizens of Bosnia Herzegovina by creating conditions for a normal life and development, where mine victims are integrated into society.” An important part of the work of the center is to keep the database of registered minefields up to date. At this moment there are 18,600 registered minefields, but it is estimated that this number is only 50-60% of the actual number. Svetlana: “It is very difficult to locate all minefields, since many of them were not documented during construction, the records were lost, hidden or destroyed or the people that wrote the records were killed or left the country. Our main problem is not the number of landmines and minefields, but the fact that nobody knows their location.”



*The spread of landmines through the country*

The BHMAC coordinates and plans the following mine activities:

- Central database maintenance
- Mine victim assistance
- Mine clearance
- Mine and UXO demolition
- Mine risk education

The Red Cross and other NGOs started these mine activities at the beginning of the war in 1992. In 1996 Bosnia Herzegovina asked for help from the United Nations, and the UN Mine Action Center (UNMAC) was then established. In 1998 Bosnia Herzegovina regained coordination of the mine actions and the organization was renamed BHMAC. This change is important to Svetlana: “We are responsible for our own problems; the international community cannot solve them for us.”

Svetlana explained how landmines negatively effect the reconstruction of the economy of post-conflict Bosnia Herzegovina. “The presence of landmines causes delay in reconstructing houses and in rebuilding the infrastructure: roads, railways and telecommunications. There are two main priorities in our mine actions. First we focus on the humanitarian aspect: people’s safety and the return of refugees. Then there is the economic development of agriculture, industries and infrastructure.”

For information on the environmental impact of mines in Bosnia Herzegovina, Svetlana introduced me to Tarik Šerak, the Mine Action Planning Manager of BHMAC.

Her work as a PR-officer for BHMAC means a great deal to **Svetlana Trifković**. She realizes how fortunate she is to have a job in a country with so much unemployment (40 % of the population is unemployed). Svetlana has studied English and as a PR-officer she can regularly practice this language with foreign funds and organizations. Her everyday contact with various people gives her positive strength to continue her job. “Strength because working in this field is not always easy”, she explains, “sometimes even frustrating. I want the country to take full financial responsibility for the mine action work, like Croatia. Right now the center still depends mostly on the donations of other countries. It makes me sad to see how the landmines negatively effect the everyday life of this country. These weapons are a threat, causing constant fear and leading to distrust and intolerance.”

## Environmental impact

I discussed the environmental impacts of landmines with Tarik. I asked him if the ecological effects of landmines, as defined by A. Berhe (an environmental researcher from the University of California), are also visible in Bosnia Herzegovina. These effects are: Access Denial, Loss of Biodiversity, Micro-relief Disruption and Chemical Contamination.



The most prominent environmental impact of landmines, categorized by A. Berhe, is **access denial to vital resources**. Already the fear of one single mine withdraws people from using their land. Worldwide landmines are responsible for denying access to 900.000 km<sup>2</sup> of land. Tarik explained that the main resources in Bosnia Herzegovina to which access is denied are the forest, the agricultural land and potential tourist zones. “The forests in Bosnia Herzegovina cover a large area. Poor people commonly rely on them for collecting wood, hunting, gathering food and medicinal plants and for charcoal burning”. Tarik told me that there are no official data on the effect of landmines on *agriculture*, saying, “we estimate that 10,000 hectares of agricultural land cannot be used. Most of the mine-impacted communities depend on agriculture for a living”. Regarding tourism he mentions, “we also have a high potential for tourism in Bosnia Herzegovina because of the intact natural resources and preserved traditions. This could ease our fight against the post-war poverty, but without a safe, mine free environment tourism is not possible.”

Berhe describes that by denying of access to the land more intensive agriculture might be practised on the safe land, endangering the health of the soil. Tarik explains that this does not apply for Bosnia Herzegovina. “We have a lot of land. Even the land that is not covered with landmines is not all used for agriculture, we don’t have the financial possibilities. The positive site is that the soil is not too intensively used or filled with pesticides. Italian NGO’s are therefore now investing in organic agriculture in our country.

Another ecological issue associated with landmines, as mentioned by A. Berhe, is the **Loss of Biodiversity**. Landmines threaten biodiversity by killing animals. There are no exact numerical data on the amount of animals that are injured or died from landmines, but it is thought that there are species that are endangered in their extinction. “In Croatia it is reported that 4% of the rare European bears were killed by landmines, but there are no statistics on the number of *animals* that have fallen victim in Bosnia Herzegovina. I can tell you that in 2006 one dog in Mostar died and in 2007 five sheep were killed. Still, landmines are small and most of the victims of these weapons are human beings”, Tarik tells.

Berhe also describes that biodiversity is threatened by destroying vegetation during explosions or demining. Tarik remarks on this “landmines destroy some *vegetation* when they explode, but the damage to the vegetation is mostly done by mine clearance. The machines that we use to search the ground for landmines and unexploded ordnance (UXO) plough the ground and destroy all vegetation.”

A. Berhe describes how landmines **disrupt the micro-relief**. When a landmine explodes it can create a crater of about 30 cm, the damage to the stability of the soil can increase the susceptibility to erosion. In warm and humid areas the crater can hold water and turn into a breeding ground for mosquitos. Tarik explains that in Bosnia Herzegovina no serious disruption of the micro relief has taken place.

The last effect of landmines on the environment, as mentioned by A. Berhe, is the introduction of **harmful chemical contaminants** into the soil. When a landmine explodes non-biodegradable and toxic waste (lead, cadmium, chromium, TNT, RDX, Tetral, Depleted Uranium) comes free and can leach into soil and underground water. According to Tarik, this is not the case in Bosnia Herzegovina. “Ironically the explosion of a landmine introduces good chemical parts into the soil: iron, manganese, zinc, copper and nickel act as cultivators and are essential micronutrients in the plant-soil system.”

### *Mine Victim Assistance*

Another part of the work of the BHMAC is assisting mine victims. Zoran Grujić, the BHMAC Mine Victim Assistance coordinator told me more. “Since the beginning of the war almost 5000 people have been injured or killed by landmines and unexploded ordnance, of whom 1600 fell victim after the war. Last year, in 2006, there were 34 victims and 17 of them died. The average number of casualties had been constantly falling, but last year we saw an increase in the number of mine victims.”

“With Mine Victim Assistance we provide medical, psychosocial, economic and practical support to mine victims with the aim of raising their self-respect and fully reintegrating them into society. We also want to change the attitude of the community towards them. In the first year we try to make the victims feel important again. Beside therapy and activities we offer practical assistance like financial support, food-packages and computers.”

Zoran explained how most of the victims, although they suffer a lot, develop a strong wish to make something of their lives. “We once helped a man who was two meters tall. He had lost both of his legs in a landmine accident. Initially he could not accept that he was handicapped, but after receiving psychosocial support and orthopedic devices he was extremely proud to stand on his new legs again. We offered him a computer course and now after one year he is completely willing to re-socialize and do something with the things he has learned. At this moment we are encouraging enterprises to employ landmine victims.”

“I have been working with mine action from the beginning and I will not stop before the last mine has been cleared”, Zoran added to his story. My visit to the Mine Action Centre for that day was finished. Svetjana offered me the opportunity to visit a mine-clearance field the next day. Filled with the impressive information of the motivated people from the BHMAC I went into the beautiful old town of Sarajevo to rethink all the things I have heard that day...

## Mine clearance

The next day Svjetlana and I visited a field that had just been de-mined (cleared from landmines and unexploded ordnance). During the car trip she explained: “Our center coordinates the de-mining activities in Bosnia Herzegovina. We have cleared around 75 km<sup>2</sup> of land and removed 50,000 landmines and 40,000 pieces of unexploded ordnance. This work has already significantly reduced the mine threat, but still there is a lot of hard, long-term work to do.”



At the field, Mirzet Djepa, a de-miner from the organization UAM, welcomed us. His task was to coordinate the work on the field and to ensure overall safety. Mirzet told me more about de-mining. “Before we start, we properly mark the area and create working lanes. The beginning is often the hardest, because we need to remove vegetation and rocks. If the place is reasonably flat, we use machines for vegetation removal, splitting[?] the ground and mine-detonation. These machines are made of strong armor-plating to handle possible explosions. De-miners search the field with manual detectors and there are usually some minedetection dogs with their handlers. The dogs are trained to sit next to a specific spot when they smell explosives. When we detect landmines or unexploded ordnances we carefully remove them and take them to a place where they will be detonated.”



A little uncomfortable, I walked along the field with Mirzet and Svjetlana. “We finished the clearance of this field yesterday. It took us 30 days and we found and removed 20 pieces of grenades (unexploded ordnance). No landmines were found. We carried out the task with a



group of 13 deminers, two dogs and a machine. The work started early in the morning, because the afternoons were too hot this July.” Mirzet stood still at a hole in the ground of about 50 centimeters deep and one meter wide with a chain lying next to it. “We had an accident. When the machine ploughed the ground, a grenade exploded. The explosion made the chain of the machine blow off. Luckily no one got hurt and the wind was not blowing in the direction of the inhabited house.” Mirzet

pointed at a house in the middle of the field. “The people that live there are very grateful for the de-mining activities. Last month the land around their house was upside down: we removed the vegetation and the place was filled with people, machines and dogs. But it gave them back their land and safety. They again have the freedom to use their land for agricultural activities and to move around without fear.”

I asked Mirzet for the dangers of his job, and he answered that it is very risky. “Of the 5000 landmine victims, 82 were de-miners and 32 of them did not survive. Last year, in 2006, there were three victims among de-miners and now in 2007 already one de-miner has had an accident. A lot of people that do this work, and their families, are scared, but jobs in this country are hard to find; it is a way to have some financial stability.”



**Mirzet Djepa** has been a de-miner since 1992, the beginning of the war in Bosnia Herzegovina. “I truly like this job. I know that I am crazy to do this, but the danger excites me. My first field-experience was emotional; I felt the adrenaline going through my blood.” Mirzet has seen some accidents happening around him. Once in Kosovo, his colleague stepped on a landmine and his leg needed to be amputated. Mirzet: “I have also had an accident myself. During the war I stepped on a landmine and it exploded. Somehow I was not badly hurt but only got a scrape. I know that I have been extremely lucky.”

## Mine impacted community

A couple of days later I visited the BHMAC center in Mostar, a beautiful old city that was heavily damaged during wartime. Nowadays the city is still divided into a Croatian part and a Bosniak (Muslim) part. The landmines that surround the city, planted by the Croatian and Serbian armies, are a constant reminder of war.

Andrej Šetka and Žafir Pilavđić, two local workers from BHMAC, showed me around. They took me to the heavily mine-contaminated hills surrounding Mostar. There we visited a couple of spots that were de-mined. Andrej: “it is just a small start, but there are still a lot of fields that need to be cleared. But as always the problem is the financing. After the war, 20 people in this area had mine accidents and one woman died. The local people that live in these hills usually know where the minefields are and which routes they can take. A technique the locals use to mark mine free roads is to surround them with stones. The people that are not from this area are most at risk. The suffering of the locals lies more in the fact that they cannot enter and use their land.” Zafir added: “There are more than one million people in this country that live in mine impacted communities. That is roughly one third of the population, which makes this country one of the most impacted in the world. 85% of the impacted communities are rural.”



Andrej and Zafir took me to a small house in the hills of Mostar. Six old people were sitting on the veranda. They were positively surprised by our visit and offered us traditional handmade coffee and lemonade. Andrej and Zafir informed them of the landmine clearance in the country and in the Mostar area. We asked them how they felt and listened to their stories. One man started: “we are very poor; we don’t have much water or money. All the young people have gone to the big cities in Bosnia Herzegovina or to Austria and Germany. We live in a mine-field and releasing the cattle is dangerous; there is always the risk of stepping on a landmine or unexploded grenade. It happened not too long ago to a woman from this area. She died. And two months ago, five sheep and one shepherd were killed.” Another man said: “I am disappointed. The phase of being angry has already passed; I don’t expect anything from the authorities anymore. We have no other place to live and I do not believe that this place will ever be cleared. Mostar has no money for it and is not interested in these areas here up the hills.” While pouring us a second cup of handmade coffee a woman added: “we experience the support from the BHMAC as very pleasant. It is important that there are people that listen to us. This way we know that some in this country do care.”

Before we left one of the women proudly showed us the cattle in the barn. Andrej and Zafir promised the people they would visit them again soon and we drove back to the BHMAC center in Mostar.



In his job, **Andrej Šetka** meets a lot of people that are affected by the landmine-situation. He can feel their happiness to receive support from BHMAC. “But I also see emotions of sadness and anger. People are fed up with the situation in this country, they are often unemployed or even homeless and cannot grow their own crops.” He himself feels frustrated as well when he reflects on the situation: “It would be better if the mine action was still coordinated by the United Nations, because then we would have

more international money. The government is not doing all they can to solve this problem. It seems basic human safety is not important for the government.

## Mine Risk Education

In the center I met Tarik Šerak, the planning manager of the BHMAC, again. I accompanied him in a meeting with Zoran Nikoloc of the Red Cross and we discussed the mine risk education. Zoran N.: “we inform people about the risks of landmines with seminars and courses, posters, mine warning signs, brochures and school presentations. An efficient tool that we use is the media, especially the local media, so we can directly focus on the problems of the people in the impacted communities.”

Tarik: “our education is focussed on the most impacted groups of the population. Those groups have changed in recent years. During the war, most victims were soldiers because most of the mine fields were on the front lines. Now, after the war, four out of five victims are civilians. In 2003 we also saw an increase in victims among returned refugees. Their homes were mostly on the former confrontation lines and as more refugees were returning home, the risk of landmine casualties increased. Last years we focussed our Mine Risk Education mainly on adult men aged 20-50; they are currently the main victims of landmines. Although they are usually fully aware of the danger, they still consciously enter the mined, and properly marked, areas. The main reasons of these adult men for disregarding the mine warning signs and entering into danger areas are existential, such as: agricultural activities, firewood cutting, collecting of metal and herbs, herding, hunting etc. The BHMAC has already decreased the number of mine victims in recent years”, said Tarik. “Our education in schools has been very successful and nowadays most accidents no longer involve young children. Still, a lot needs to be done: every single victim is one too many.”

**Tarik Šerak** is a motivated worker who gives his full energy to BHMAC. Just like the other employees of the center he gets angry about the situation as well. “With so many landmines, basic human safety is in danger, but still so many people don’t want to see that. They ignore mine warning signs and enter the minefields. Some people even steal signs to sell them. How can we change the perception of the risk that people have? How can we tell them they could be the next victims? How can we explain to a farmer that he cannot enter his own land? The land which he and his family need for food? Clearing Bosnia Herzegovina of mines would give life back to the people and restore human dignity.”

## *My personal view and impressions*

This summer I spent my holidays in the beautiful country Bosnia Herzegovina and at moments I clearly felt the threat of landmines. Throughout the country I have seen minewarning signs and at the end I even got used to them: 'Pazi mina', be careful, mines... In the city or in crowded places there are no risks, but when you get off the road, there might be a chance of entering a minefield. Although a lot of people in the country seemed a bit reluctant to acknowledge the presence of landmines, most of the people that I met always pinpointed the dangers and told me to be aware and stay on the roads. I spent part of my time in the countryside, but I went with friends that knew the area and I went off the paths as little as possible. One time in a canyon I saw a landmine that was partly freed from the ground. It was only a couple of meters away from me and suddenly I realized the threat even more, the seriousness.

It inspired me to see the motivation and the willingness of the people from the BHMAC to free Bosnia Herzegovina from landmines and other unexploded ordnance. It is painful that they don't have the financial resources to realize their planned activities. For 60% of their income they depend on donors. They need money. Therefore they could use all possible help and sponsorship and I would like to plead with everyone to help in their way. Spread the word and make others aware of this huge problem that Bosnia Herzegovina and multiple other countries are facing today. Donate personally or encourage big companies to donate to the mine actions. More information is to be found at: [www.BHMAC.org](http://www.BHMAC.org).

To feel the danger of the landmines so closely has made a huge impression on me. Now, back in Belgium, I can still feel the threat and instinctively I avoid walking off the roads. But we have the freedom here to move freely and to use the land we have. And I believe that people everywhere in the world should be able to experience that freedom.



*Mines and unexploded ordnance present a major threat to people's right to live, liberty and the security of a person.*

(UN Universal Declaration of Human Rights and

UN Convention on the Rights of the Child)

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## Relevant websites

[www.bhmac.org](http://www.bhmac.org)  
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Friends of the Earth Flanders & Brussels  
Maria Hendrikaplein 5  
9000 Gent  
Belgium

<http://www.motherearth.org>  
contact@motherearth.org