



# Floods in Bosnia and Herzegovina

## ECHO JOINT ASSESSMENT REPORT

06/06/2014,  
08:00:00 UTC

**Status**  
Request for assistance.

**Event**  
Floods

**Occurrence**  
Date: 15/05/2014  
Time: 16:38 UTC

### Map



### Recommendations

#### Short term actions

- The Civil Protection response operations are gradually coming to an end. Water purification and debris removal are still on-going and will most probably continue for the next days.
- Rehabilitation and reconstruction of public buildings and services (health centers, schools, public administrative buildings and institutions)
- Shelter and housing – cleaning, rehabilitation and repair of a total of 25.000 priority dwellings
- Debris management – solid waste and debris removal

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- Infrastructure: Roads & Bridges – repair and replacement
- Water, Sanitation and sewage – restoring water supply and sewage systems
- Livelihoods and agriculture – Assistance to bring back on line industrial and small scale farming, planting and soil decontaminations

The overall estimate of the cost of the above mentioned priorities is USD 153 million (UN source).

- Comprehensive disaster waste management response to be carried out in order to clear the affected areas.
- Due to infiltration of waste water into wells a comprehensive assessment of water quality needs to be carried out (including private wells). **Mid-term to Long-term actions:**
  - An awareness campaign should be conducted in all flood affected areas regarding the mine and UXO situation. Once the flooded areas are dry the assessment of possible movements of mines/UXO in the already listed minefields should begin and be carried out by BHMAL and their partners, priority should be given to populated areas. A specific call centre for mine/UXO should be established for efficient spot tasking. Storage Sites of Ammunitions (SSA) and Weapon Storage Sites (WSS) should be controlled more frequently and the operations of destruction should be sped up.
  - An environmental needs assessment looking at possible land contamination should be conducted.
  - An EU civil protection preparedness and capacity building mission should be considered to support the National Authorities to identify actions to take in order to reinforce their disaster preparedness and response capacity.
  - The BHMAL and the civil protection should increase their capacity in rapid response actions upon request from the population (long term)..
  - The priority sectors for humanitarian intervention should be:
    - o livelihoods early recovery (including agricultural support and livestock),
    - o temporary housing/shelter self-repair (including health facilities)
    - o WASH
    - o protection (avoid any discrimination in the assistance as already reported by different sources concerning the Roma minority,
    - o follow-up on the land and house ownership issues),
    - o psychosocial assistance (disasters have somehow re-activated war trauma)
    - o Mine action.

The modalities of assistance should largely be based on Cash in view of the functioning markets. DRR/Resilience, Gender and age should be mainstreamed across all sectors.

- The floods and landslides that have hit the country show that more efforts must be done in terms of disaster risk reduction and disaster preparedness. The disaster preparedness and response capacity of the communities at risk and the national and local authorities should be further reinforced through dedicated programs. Adequate water management, disaster response coordination and

information management and early warning systems, to name a few, are indeed examples of the most important ones.

- Disaster Risk Reduction and resilience mainstreaming in the humanitarian, the recovery and development phases are paramount to ensure that affected communities are less vulnerable to catastrophes of this kind in the future. This will also safeguard investments made by Development actors. For example, housing and productive assets insurance schemes should be promoted.
- Efforts should be made by the aid community and stakeholders (both national and international) in charge of information management and coordination to improve the information exchange, the quality of the information on needs and gaps and to find mechanisms to update it. In parallel initiatives aiming at supporting the capacity of the relevant authorities to improve their performance in this domain should be supported.
- Coordinated households' level surveys by aid agencies should be promoted, as to ensure a proper understanding of the impact of the floods at the individual level, enabling a better fine tuning of the assistance and better prioritization of the most vulnerable households.
- Further assessment such as the EU-UN- World Bank Recovery Assessment should make sure that vulnerability and social inclusion aspects are well documented and corresponding programming recommendations are made for local authorities and international actors. Humanitarian agencies, including NGOs, should be able and encouraged to feed this and future assessments with information on pre-disaster and post disaster vulnerabilities.
- The beneficiaries of the humanitarian assistance should be taken over by recovery and development interventions, once those start. This is at the core of the LRRD approach (Linking Relief, Rehabilitation and Development).
- The relevant authorities should be encouraged to proceed to a systematic registration (with due complaint mechanism) of flood affected households in need of assistance, so that those are clearly identified for current and future assistance programmes, including possible compensation schemes (for loss/damages of houses, loss of livelihoods, crops, livestock, etc...) and other ad hoc social safety nets.
- The opportunity to address through recovery actions structural long term issues such as the extreme poverty and the social exclusion and marginalization of segments of the population (such as the Roma minority or conflict returnees and refugees) should not be missed out.

## Situation Overview

- Bosnia and Herzegovina is a compound state, which in line with the General Framework Agreement for Peace in BiH, consists of the Federation of Bosnia and Herzegovina (51% of territory) and the Republika Srpska (49% of territory). Brcko, which was a subject of disputes and international arbitration, was proclaimed a district. Brcko District has its own multi-ethnic government, Assembly, Executive Board, jurisdiction and police forces. Federation of Bosnia and Herzegovina, as the entity, consists of ten cantons. Republika Srpska is the entity, with 61 cities/municipalities. Thus, Bosnia and Herzegovina has two entities and Brcko District.
- Since 13 May 2014, heavy rains have caused large-scale flooding with subsequent landslides. Those heavy rains are considered the heaviest rainfall in Bosnia and Herzegovina since records

began in 1894. The number of landslides has been over 3000, which have, in addition to all other damages, moved mines and warning signs to unknown locations. According National Authorities 60 towns and cities were severely or slightly affected, occupying an approximately total area of 10.000 km<sup>2</sup> - 13.000 km<sup>2</sup>.

- Two weeks after the floods, two thirds of the known minefield and uxo's were affected, but only few mines or uxos were found during the retreat of water. Even if, so far, only one mine's explosion was reported in a river, without any more information, the danger of mine and UXO's related accidents remains high.
- Large areas of fertile land were flooded and planted crops destroyed. UN stated that for maintenance of livelihoods, there is an urgent need for seeds, considering that the planting season will be soon over.
- The Collective Centres are 28 (12 in the Federation of Bosnia and Herzegovina, 14 in the Republika Srpska and 2 in Brcko District).
- The most affected areas are:
  - Posavina Canton; Tuzla Canton; Zenica-Doboj Canton in Federation of Bosnia and Herzegovina.
  - The municipalities of Bijeljina; Samac; Doboj; Sekovici; Vukosavlje in Republika Srpska.
  - District of Brcko.
- As of 20 May 2014 water levels started to decrease with rivers receding to their riverbeds. However ten days later, even if floodwaters have continued receding, the water levels of Sava river basin were still high because of its slow decrease, at a pace of less than 1cm / hour. Currently the water levels on Sava river return to normal values and then water from flooded areas is flowing naturally back to the river. However several hundred tons of animal carcasses remain in the flooded areas. The problem is the removal and safe disposal of carcasses of dead farm animals.
- Regarding the health risk situation, no outbreak of diseases was reported; however diarrhea and respiratory diseases may become in the near future a potential concern. The vaccination of tetanus, rabies and polio are suggested to the flood recovery teams involved in cleaning operations. To those teams it is also suggested to have snake venom. Currently the mosquitoes are hampering the operations in the field but according the health ministry of Bosnia and Herzegovina those mosquitoes are not expected to spread any diseases.
- On 25 May the rescue operations stopped and the first emergency response phase (mainly water pumping, water purification and cleaning) is approaching to an end. The Recovery phase already started including a comprehensive recovery needs assessment started on 29 May. As a result of those heavy rains, on 15 May 2014 the Ministry of Security of Bosnia and Herzegovina requested international assistance from the Union Civil Protection Mechanism through the Emergency Response Coordination Centre (ERCC) of the European Commission.
- The UN Resident Coordinator Office was requested to take the lead in coordinating international donors' efforts. It quickly overtook the role of coordination of aid agencies.
- Relief efforts are being hampered by landslides, damaged infrastructure, broken telecommunications, blocked roads, blackouts and difficult conditions. The issue of shifting minefields is also likely to affect the provision of assistance, and the Government is warning against the use of alternative roads without prior clearance.

- Currently, as per UN assessment, The humanitarian phase (with focus on in kind assistance is over). The immediate response was very successful with an overwhelming national and international solidarity. The floods caused evacuation of 10,000 people, around 15,000 displaced; 1300 living in collective centres, 75,000 affected homes (out of which 2000 completely destroyed); 200 public buildings and facilities such schools destroyed; many damaged roads and bridges including 15 cut off communities (no access by roads); 15,000 jobs loss because of damages to enterprises. The response has been overwhelming including financial contributions.
- The BiH Minister of Foreign Affairs said that the loss in floods is estimated between 5 to 10% of GDP ( as per World Bank estimate).

## Identified Needs

- The assessment of needs is based on collated various reports provided by aid agencies, local and national authorities, and figures and reports provided by the UN. ECHO deployed teams (both humanitarian and Civil Protection) carried out several field visits and to conducted some assessments.
- The initial needs were to save persons from the massive amount of water that covered almost 40% of the country and evacuate them from their houses that had been surrounded by water. In the immediate aftermath of the disaster, there was also the need to provide to the affected population basic relief items, water, food and shelter and to also secure health care. Currently, from a civil protection point of view, the identified remaining needs are water purification, disinfection, Debris/Carcasses management and waste management.
- A vast number of houses and residential buildings have been destroyed, damaged or inundated, making them unfit for living and leading to the displacement of a big number of displaced persons. Still some cleaning, water pumping, water purification and debris removal need to be performed in the coming days, weeks.
- In urban areas, shops, cafes, small businesses all located in ground floor have been badly damaged, leading to an increase of unemployed and a blow to urban households' economy.
- The flood waters have also hardly hit agricultural land. It is estimated by the UN that up to 130 000 hectares of arable land are damaged. Crops are completely wasted in some areas and fodder for livestock destroyed. Thankfully the most of the big livestock, which represents an essential asset in household economy of the farmers, could be saved.
- People started at a very early stage to clean out their houses and moved back, trying to return to normality. In this stage, support with cleaning is needed (mud has transformed into heavy dust layer). It was very early necessary to handle the situation with all the dead livestock that created great concern and discomfort. Affected persons not only needed to have access to functioning physical healthcare, but the psychosocial aspect also needs to be further addressed.
- Although there is no comprehensive and unified picture of the needs but ad hoc reports coming from various agencies, the early recovery needs are both evident on individual level for the affected population, and on a structural level. People need to regain a normal lifestyle in order to carry on with their lives, but the communities also need support to repair essential infrastructure such as water pumps, roads, bridges, mobile networks, etc.

- The present phase corresponds to the period between relief activities (which are largely phasing down) and the recovery activities (to be informed by the recovery assessment to be completed by mid-June) that will start not before several months, at best from September. This phase, which could be labeled as 'early recovery', and which shall last over the next six months, is typically the one to be covered by humanitarian actors and donors such as ECHO.
- Assistance still remains an issue for the persons most affected (mainly persons whose houses were destroyed by landslides and cannot be hosted by family and relatives). But also returnees who have to repair their houses and whose traditional livelihoods have been affected disrupted or destroyed.
- Humanitarian activities should target as priority the people affected by floods and landslides and among those the most vulnerable (ethnic minorities - Roma, conflict IDPs and returnees, which have very often been re-settled after the conflict in flood-prone areas close to rivers, single women headed households, elderly, etc...).
- Currently there are 1300 living in collective centres and around 40,000 people living with relatives and /or friends (source NGOs on 4 June)
- Humanitarian assistance will be vital in the coming weeks and months, for those who are left with little means of subsistence, until recovery and development projects take over and can cater for their longer term needs.

## National Response

Immediately after the heavy rains of 13 May, a State of Emergency was declared in most of the affected municipalities and/or cantons. On the 15 May both local and national response capacity were overwhelmed and therefore the Ministry of Security of Bosnia and Herzegovina requested international assistance from the Union Civil Protection Mechanism through the Emergency Response Coordination Centre (ERCC) of the European Commission.

The relief efforts have been hampered by landslides, damaged infrastructure, broken telecommunications, blocked roads, blackouts and difficult conditions. The issue of shifting minefields has also affected the provision of assistance, and the Government was warning against the use of alternative roads without prior clearance.

At National level Liaisons officers from the armed forces, the national Red Cross and Red Crescent society, the national police and the customs, as well as representatives from the two entities and Brcko District were embedded in the Operation Center managed by the Ministry of Security of Bosnia and Herzegovina, in order to reinforce the coordination between the different actors involved in relief operations.

According to Ministry of Security 42 279 persons were evacuated and 20 508 persons are staying in 25 collective centers (preliminary data from 24.05.2014). The armed forces of Bosnia and Herzegovina have reported to have hosted 255 persons in 4 military barracks.

The division of labour between Red Cross, Civil Protection and the police developed significantly as the emergency unfolded, resulting in a more coordinated, organised and structured effort. Currently volunteers are still arriving in the affected areas willing to assist the local population in clean-up activities (both debris and dead animals).

Local authorities identified their needs and performed initial damage assessments. Towns in the northern part of the country that are still surrounded by water are now coordinating their work in joint efforts in order to respond more efficiently. The government and agencies are now preparing for the Recovery Needs Assessment.

Once the water has completely withdrawn and the mud has dried up, the BHMACH plans to conduct assessments to verify the minefields affected by the floods, given priority to the minefields closest to populated areas.

## European Civil Protection Response

Following the request for assistance from the Ministry of Security of Bosnia and Herzegovina received on 15 May 2014 by the ERCC, the operational heart of the European Union Civil Protection Mechanism (EUCPM), based in Brussels in the Directorate General of Humanitarian Aid and Civil Protection (DG ECHO) of the European Commission, a first European Civil Protection team (EUCPT) was deployed on 17 May 2014 to support the National Authority facilitating the coordination of the assistance provided through the European Union Civil Protection Mechanism and assessing civil protection needs. On 28 May 2014 a second EUCPT was deployed to continue to support the National Authorities in coordinating on-going operations of the European teams on the field, facilitating the coordination of in-coming assistance and assessing the developments of needs.

The First EUCPT was composed of one Team Leader from Sweden, two coordination experts (one from Sweden and the other from the Netherlands), one assessment expert from Germany, one demining expert from France and one ERCC Liaison Officer.

The second EUCPT was composed of one Team leader from Netherlands, one Deputy Team Leader from Estonia, three coordination experts (one from Sweden, second from Germany and the third from Finland) and one ERCC Liaison Officer.

In particular the terms of reference of both EUCPT were:

- To facilitate the coordination of assistance provided by European countries through the EUCPM;
- To assess the situation and the needs at the emergency area;
- To liaise with the national authorities of Bosnia and Herzegovina;
- To liaise with the intervention teams of the Member States on site;
- To liaise with any other relevant actors present on site;
- To provide technical and scientific assistance and information.

From the beginning of the emergency 18 European countries provided Civil Protection assistance through the European Union Civil Protection Mechanism (EUCPM) and 6 European countries through bilateral agreements.

So far more than 800 civil protection experts have been deployed together with their equipment through the Union Civil Protection Mechanism focusing mainly on the saving lives, water pumping, water purification and debris cleaning.

**In particular the 18 European Countries offering through the EUCPM are:**

- **Austria** deployed in Orasje 1 Flood rescue team with 8 motor boats, 3 High Capacity Pumping (HCP) teams and 1 Water Purification unit. On 29 Austria also offered 15 Drying Devices (Dehumidifiers devices driers for hose walls/premises), 8 submersible pumps (800 l/min + 3 hoses each), 4 mud water pumps including 3 hoses, 10 Heating Devices for drying walls, 3 Portable Power Generators 14 kVA; 230 V / 400V, 1000 blankets (50% wool & 50% other fibres, size: 150x200 cm), 200 canisters for drinking water 10 l.
- **Belgium** deployed in Orasje and in Domaljevac 1 Water Purification team with 37 staff members and 1 High Capacity pumping module.
- **Bulgaria** offered 200 blankets and 50 tents for 8 persons each, which were distributed in the District of Brcko.
- **Czech Republic** offered 1 120 Humanitarian Aid Kits that were distributed in District of Brcko and deployed 1 High Capacity Pumping module, which includes 2 pumps, in Orasje.
- **Denmark** deployed 8 Water Purification modules, 2 of which in Samac, 6 in Odzac, treating 24.000 l/day each. It also deployed in Odzac 2 High Capacity Pumping module.

**Estonia, Latvia and Lithuania** have deployed in Orasje the multinational module named "Baltic Flood Combat", composed of 19 team members coming from the 3 Countries, 3 high capacity pumps, 7 vehicles, 4 trucks, 2 jeeps and 1 minibus.

- **Germany** deployed 4 High Capacity Pumping modules with approximately 15 staff members each (2 in Orasje and 2 in District of Brcko) and 1 Water purification module with 3 experts. It also offered to Sarajevo 21 water cleaning tools and 80 water pumps.
- **Hungary** offered 100 000 sandbags to be transported to Orasje and one Water Purification Pumping module.
- **Italy** deployed a flood recovery team to Bijeljina, composed of 40 persons.
- **Luxembourg** deployed 1 Flood rescue team with 23 persons and 5 boats to operate in Orasje, Vidovice and Samac.
- **Poland** deployed to Samac 1 High Capacity Pumping module with 37 persons and 14 vehicles. After having operated in Samac, the High Capacity module moved to Tuzla. Furthermore Poland offered 1 high volume pump.
- **Romania** offered 1 000 blankets, 2 000 sheets, 1 000 pillow cases, 18.468 l mineral water, 20 000 kg sugar, 4 999 kg canned pate and 4 959 kg canned meat, that was delivered to Samac.
- **Slovenia** offered 1 military helicopter for transportation and to rescue and 1 police helicopter AB-212 to transport and rescue people, equipped for night activities. The crew of the 2 helicopters was composed of 6 people. Slovenia offered also 1 Flood Rescue Team with 12 team members and 4 boats. Slovenia operated mainly in Odzak.
- **Slovakia** offered to Bijeljina 28 power generators of 5,5 kw each, 6 sludge pumps, 1 600 rain coats, 60 rubber boots, 10 000 sandbags and 28 pallets. Furthermore, Slovakia offered to Sarajevo 800 raincoats, 10 tents, 100 blankets, 5 power generators, 5 sludge pumps, 10 heaters for drying walls, 200 rubber boots, 200 fuel canisters of 20 l each, 6 229 towels, 2 360 pieces of clothes, 633 pieces of toiletry, 10 wood pallets, 18 metal pallets and 2 metal crates.

- **Sweden** has delivered to Tuzla canton and to Zenica Dobož Canton a total of 6 Water Purification units (3 per canton) with a capacity of 6000 l/h.
- **United Kingdom** offered water response equipment and 33 associated personnel, including rigid inflatable boats and engines and supported by a full logistics platform. UK mainly worked in Bijeljina.

#### **The 9 Countries that have offered bilaterally their assistance are**

- **France** offered 1 Flood rescue team that has worked in Tuzla, Dobož, Maglaj, Odžak, Srebrenik and Domaljevac.
- **Croatia** offered 2 helicopters with crew, 2 flood rescue teams with a total of 9 boats, 15 vehicles and 52 persons. Croatia focused in Orasje Vukosavje and Odžak.
- **Norway** contributed with financial assistance
- **Slovenia** beside assistance provided through UCPM deployed to Dobož 1 high capacity pump and three pumps with unspecified capacity to Bjelina
- **The Former Yugoslavia Republic of Macedonia** deployed to District of Brčko 1 Flood rescue team composed of 30 team members, 4 boats, 20 power generators, 23 small capacity pumps with a capacity of 200-300 l/min, 2 high capacity pumps with a capacity of 3000 l/min. It also offered 3 000 blankets and Medicines delivered to Brčko.
- **Albania** deployed 1 flood rescue team to Orasje composed of 23 persons, 3 trucks, 5 boats and 2 vans.
- **Azerbaijan** offered to Sarajevo some equipment and food.
- **Switzerland** focused its assistance mainly in water purification.
- **Luxembourg** offered bilaterally, in addition to the flood rescue team offered via the European Civil Protection team, 1 Water Purification team from International Emergency Firefighters to Orasje and Samac as well as financial assistance to Care NGO (50 000 EUR).

As of 25 May 2014, the EUCPT has been informed that a total of 1 736 people have been rescued by the European Civil Protection Teams operating in different affected areas. In particular:

- Austria rescued 256 people in Orasje
- Luxembourg rescued 770 people in Samac, Vidovice, Orasje and contributed to the reparation of the dam in Orasje
- Slovenia rescued 109 people with the Police Helicopter, 334 people with the military helicopter (4 of which needed emergency medical assistance, 25 of which were children, 10 of which were babies). The military helicopter transported 11 000 kg of cargo relief items. The Slovenian flood rescue team rescued 120 people, 2 dogs, 1 cat and 2 light pigs, supplied with food, water and medicines almost 400 houses and contributed to dead animals cleaning (300 pigs, 20 cows, hundreds of chickens).
- United Kingdom rescued 147 people.

The European Civil Protection Mechanism has also contributed to the EU-UN-WB Recovery Needs, deploying 4 civil engineers (3 from UK and 1 from Slovenia) on 29 May 2014.

## Humanitarian Aid Response

Starting from the early days of the disasters a number of aid agencies, both local and international, have provided assistance focusing on flood affected people in displacement or areas of return.

The following sectors have mostly prioritized: WASH, shelter/NFI, livelihoods, health and food assistance. Significant efforts have been made by the National Society of the Red Cross and Red Crescent. People spontaneous efforts and solidarity assisted by donations by individuals and local businesses have also participated to the overall response to the first needs.

The international aid community has started to coordinate itself almost immediately under the UN Resident Coordinator Office. Gradually this coordination has improved with additional sub-meetings per priority sectors, such as WASH, Mine Action, Education and Health.

A parallel, but complementary, NGOs coordination mechanism was put in place as of Friday 23 May to discuss households' level humanitarian issues. This was not intended to replace the UN coordination meetings – but to help NGOs coordinate work, efforts and avoid overlap. More and more agencies in addition to relief work in the field are now carrying out needs assessment to decide on priority actions for the coming weeks.

## Military Response

In terms of military assistance the national armed forces have been working very efficiently with EUFOR that has immediately provided 3 helicopters to evacuate people. Approximately 1 000 persons were saved by EUFOR in the first 2-3 days after the floods. EUFOR could count on 4 helicopters from Austria and as of 20 May two additional helicopters from Switzerland have reinforced EUFOR fleets. Military assistance has also delivered humanitarian aid and has been involved in clean-up activities.

On 2 June another 400 EUFOR troops are starting to assist with disinfection and clean-up activities and assist with humanitarian aid to population still not sufficiently reached by assistance, bringing amongst other assets, heavy machinery and pontoon bridges. This assistance has been organized within the framework of the Joint Endeavour 2014 exercise that is usually conducted yearly and that engages 1 200 national troops.

Furthermore on 4 June, additional 3 companies under the EUFOR umbrella has been deployed in the country to further assist in the clean-up effort of the affected areas.

One of the EUFOR helicopter was provided on very short notice for the EUCP team to conduct an aerial assessment of the Orasje region.