



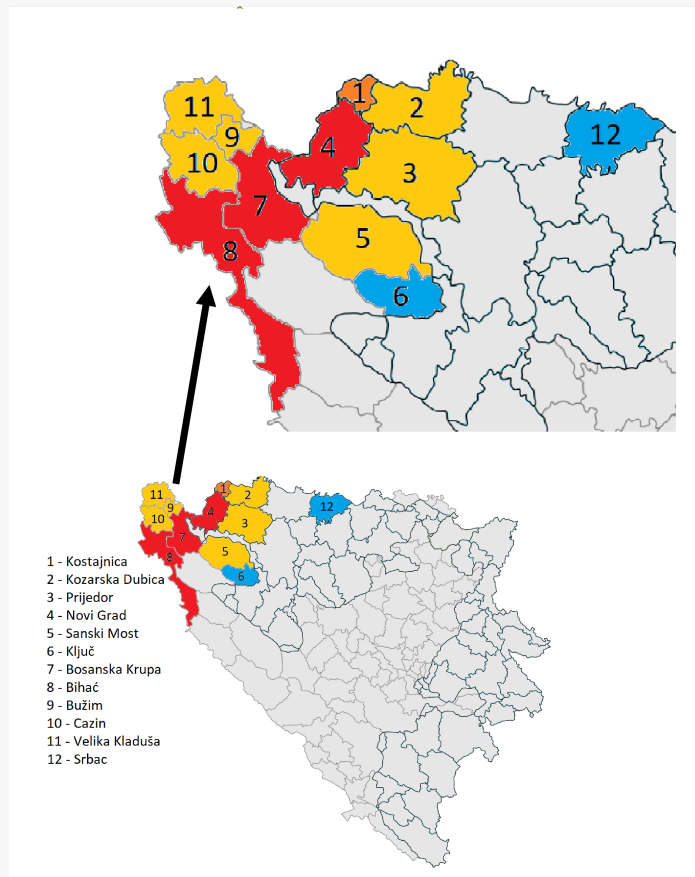
The Red Cross Society of Bosnia and Herzegovina (RCSBiH) supporting people affected by the floods. Kozarska Dubica, 7 September 2023. Photo: RCSBiH

Appeal: MDRBA015	Total DREF Allocation: CHF 126,505	Crisis Category: Yellow	Hazard: Flood
Glide Number: FL-2023-000079-BIH	People Affected: 10,000 people	People Targeted: 1,500 people	
Event Onset: Sudden	Operation Start Date: 29-05-2023	Operational End Date: 30-09-2023	Total Operating Timeframe: 4 months

Targeted Areas: **Federacija Bosne i Hercegovine, Republika Srpska**

The major donors and partners of the IFRC-DREF include the Red Cross Societies and governments of Australia, Austria, Belgium, Britain, China, Czech, Canada, Denmark, Germany, Ireland, Italy, Japan, Luxembourg, Liechtenstein, Malta, Norway, Spain, Sweden, Switzerland, Thailand, and the Netherlands, as well as DG ECHO, Mondelez Foundation, and other corporate and private donors. The IFRC, on behalf of the National Society, would like to extend thanks to all for their generous contributions.

Description of the Event



Map of 12 affected territories in the northwest of Bosnia and Herzegovina.

Date of event

2023-05-15

What happened, where and when?

Heavy rainfall has battered multiple regions in northwestern Bosnia and Herzegovina, leading to extensive flooding and overflowing rivers, including the Una and Sana rivers. According to the official data, intense rainfall, exceeding 40mm, occurred in the northwestern area in the night of 14 and 15 May. The town of Bihać was confronted with the most difficult situation with 44mm of rainfall resulting in a flood wave.

The situation escalated during the night of 15 and 16 May with an additional 40mm of rainfall intensifying the flood wave and impacting a broader area. Rising water levels in the Una and Sana rivers and their tributaries caused widespread flooding, affecting the population in the northwestern part of Bosnia and Herzegovina.

The flood impacted the territories of 12 municipalities and cities in Bosnia and Herzegovina, including Novi Grad, Prijedor, Kostajnica, Bihać, Bužim, Sanski Most, Cazin, Velika Kladuša, Ključ, Bosanska Krupa, Kozarska Dubica, and Srbac.



RCSBiH supporting affected people in Bihać, 20 May 2023. Photo: RCSBiH



RCSBiH delivering assistance to affected people in Novi Grad, 7 September 2023. Photo: RCSBiH

Scope and Scale

In the last few years, Bosnia and Herzegovina has been experiencing the consequences of climate change reflected in more frequent and more intense flood events that periodically affect the country. These consequences of climate change threaten the safety and health of the population, as well as the economy, the cultural and ecological heritage of the country.

Due to its geographical location, as well as the limited capacity for adaptation, Bosnia and Herzegovina, compared to other European countries, is particularly sensitive to the impact of climate change. Based on the latest needs assessment of the affected population, conducted by the Red Cross Society of Bosnia and Herzegovina, local communities affected by the floods during this operation have been exposed to flooding intensively in the past few years. In total 89.55 per cent of households in the northwestern part of the country that were affected during this emergency had been flooded multiple times in the past two years out of which 75.71 per cent had not received any assistance in response to the floods during these emergencies. Many of the community members stated that this flood had the biggest impact over the last 10 years.

In May 2023, heavy rain and flooding impacted 12 territories in the northwestern Bosnia and Herzegovina, directly affecting 887 households. According to the classification of country development, 8 out of 12 impacted territories (66 per cent) are underdeveloped and extremely underdeveloped areas with big parts of population living close to poverty line. Families of impacted households faced substantial damage to their homes and disruption of basic services. The most impacted territories were Bosanska Krupa with around 230 households affected, Bihać with around 200 affected households and Novi Grad with 170 households. Other areas such as Prijedor, Kostajnica, Kozarska Dubica, Cazin, Velika Kladuša, Bužim, Sanski Most, Ključ and Srbac also experienced varying degrees of impact.

The flood caused extreme damage to homes destroying personal belongings, furniture and equipment. In total, 34 households faced life-threatening situations, leading to the evacuation of 105 individuals from their homes. The floods severely damaged facilities for food preparation, including those for dairy and meat processing. Agricultural lands were also exposed to extensive damage and destruction of crops directly affecting the livelihoods of local communities and the long-term health of ecosystems. Among the most affected area was Velika Kladuša that alone faced a flooding of 70 per cent of its territory, leading to substantial damage to hundreds of hectares of cultivated land.

While 887 households directly experienced the impact, nearly 10,000 people in the affected regions were at risk of exposure to landslides



and potential infections. The extensive damage to household property, production assets, infrastructure and agricultural land seriously endangered the livelihoods of almost all affected households.

National Society Actions

Have the National Society conducted any intervention additionally to those part of this DREF Operation?	Yes
Please provide a brief description of those additional activities	<p>In collaboration with the Swiss Red Cross, the Red Cross Society of Bosnia and Herzegovina implemented the project "Institutional Preparedness of the Red Cross Society of Bosnia and Herzegovina for Disaster Response." In May 2023, within the framework of this project, the Red Cross Society of Bosnia and Herzegovina carried out a humanitarian response to the needs of the affected population.</p> <p>One of the key accomplishments of the project was the distribution of essential relief items. Timely delivery of food and hygiene packages provided immediate support to people in need in the affected areas. A total of 393 hygiene parcels and 300 food parcels were distributed. In addition to material aid, the project focused on engagement with affected communities.</p>

IFRC Network Actions Related To The Current Event

Secretariat	Throughout the flood response and the operational planning, the Red Cross Society of Bosnia and Herzegovina received support from the IFRC Country Cluster Delegation for Central and South-Eastern Europe. The IFRC provided essential support through every stage of the operation's implementation, increasing efficiency and effectiveness of the activities of the Red Cross Society of Bosnia and Herzegovina.
Participating National Societies	<p>The Swiss Red Cross has been consistently providing support to the Red Cross Society of Bosnia and Herzegovina in disaster preparedness and response.</p> <p>Specific activities undertaken in collaboration with the Swiss Red Cross during the flood response were detailed in the section related to National Society actions.</p>

ICRC Actions Related To The Current Event

ICRC is present in Bosnia and Herzegovina but did not participate in flood-response activities.

Other Actors Actions Related To The Current Event

Government has requested international assistance	No
National authorities	The authorities of Bosnia and Herzegovina did not actively participate in humanitarian activities in response to the floods since their efforts were primarily directed towards logistical support and provision of rescue boats enabling the Red Cross to approach remote areas and hard-to-access parts of the population affected by the floods. In the aftermath of the disaster, the authorities assessed the extent of the damage caused, and directed their activities towards sanitation of facilities and restoring traffic and water supply systems in flood-affected communities.
UN or other actors	N/A



Are there major coordination mechanism in place?

In the early stages of addressing the floods, the Ministry of Security in Bosnia and Herzegovina took prompt action by convening the Coordinating Body for Rescue and Protection. This initiative aimed to ensure the involvement of all relevant stakeholders in planning activities for flood response. The Red Cross Society of Bosnia and Herzegovina played an active role within the Coordinating Body, ensuring that activities were harmonized with other relevant actors on the ground.

Simultaneously, local organizations were instrumental in the operations of Emergency Headquarters / Civil Protection Headquarters. Their participation was crucial in guaranteeing a synchronized and effective response. This collaborative approach, with the Red Cross involvement at the coordination level and participation of local organizations, enabled effective response in addressing the challenges posed by the floods.

Needs (Gaps) Identified



Multi purpose cash grants

The households affected by the floods experienced extensive damage, including damaged floors (54 per cent), walls (93 per cent), furniture (60 per cent), electrical and plumbing installations (20 per cent) and household appliances (51 per cent). The flood also impacted the auxiliary facilities crucial for the livelihoods of many affected households. The floods destroyed 241 crops and 59 greenhouses while damaging 200 auxiliary facilities, 125 pieces of machinery and 10 vehicles.

The floods intensified the difficulties for many households that were already facing challenges in their daily lives due to inadequate income, limited job stability and a reliable source of funding. The diverse needs of the affected population emerged prominently: food (42 per cent), personal hygiene items (39 per cent), diapers (2 per cent), education (11 per cent), medications (19 per cent), heating (55 per cent), utility bills (59 per cent) and home repairs (56 per cent).

Considering these challenges, multi-purpose cash grants emerged as the most fitting form of assistance to meet the needs of the affected population.



Health

The spread of infectious and other diseases, stemming from the flood-produced dirt and mold remained even after the water receded. Cleaning and disinfection were essential and integral aspects in preventing and controlling the spread of infection. Providing information about infectious and prevention measures as well as health education were crucial for community resilience and successful response to the floods.

Health education activities were organized by the local Red Cross organizations and they involved dissemination of information on prevention of health effects and diseases and timely floods–health response. These activities played a vital role in building community resilience and managing health risks.



Water, Sanitation And Hygiene

The floods caused significant damage to residential structures, affecting a total of 887 households, with 184 homes being severely impacted. Additionally, numerous essential auxiliary and communal facilities vital for the daily life of the affected population were severely damaged by the floods. Within these facilities, significant harm occurred to furniture, walls, and the plumbing system, indicating the widespread impact on the entire community.

The danger to the health of the affected population extended beyond the immediate flood period. Even after the water receded, remnants of dirt and other contaminants within homes and objects posed a substantial health risk to people. This situation highlighted the urgent need to provide hygiene products and cleaning equipment to affected population. Equally crucial was the need for targeted education initiatives, ensuring that the population in the affected areas was well-informed about the ongoing risks of disease transmission and contamination in the aftermath of the floods.



Operational Strategy

Overall objective of the operation

The DREF operation aimed to support 887 of the flood-affected households by providing services and assistance in the areas of Cash and Voucher Assistance (CVA), Health, Disaster Risk Reduction, Shelter, Housing, and Settlements for a period of four months.

Operation strategy rationale

The DREF activities were directed towards addressing the identified needs of the affected population, prioritizing the following:

- Implementation of cash assistance programs to effectively address a broad spectrum of needs among the vulnerable population. This approach not only safeguarded the dignity of the recipients but also enhanced their safety and well-being.
- Distribution of essential equipment and hygiene supplies required for the cleaning and disinfection of affected houses, facilities and land. This measure aimed to restore hygienic conditions and mitigate potential health risks in the affected areas.
- Dissemination of knowledge and information regarding life and health protection during crises. This effort targeted both the affected population and the Red Cross actors actively engaged in the crisis response. By promoting awareness and understanding, this initiative contributed to the overall resilience and preparedness of individuals and humanitarian actors.

Targeting Strategy

Who was targeted by this operation?

The DREF activities were aimed at mitigating the impact of the flood and providing assistance to those directly affected by the disaster. The total number of people to be reached by this DREF operation was set at 1,500 people and targeted mainly the very vulnerable households. In line with the objectives of these activities, the Red Cross Society of Bosnia and Herzegovina formulated a set of criteria to identify and prioritize individuals in need affected by the flood. The following list of criteria has been established:

- Households that have not received assistance from other donors.
- Households that have been directly impacted by the flood.
- Households that have incurred damages to their residential properties.
- Households that have suffered losses to their livelihoods.
- Households that have not received assistance from other sources.
- Socially vulnerable households.
- Households with five or more members.
- Single-parent households.
- Roma national minority.
- People with disabilities.
- Older population.

Given that the floods have impacted the region with two reception centres for people on the move, the Red Cross Society of Bosnia and Herzegovina conducted an assessment to determine the impact of the floods on this particular group. Based on the gathered information, no adverse effects were observed on individuals currently in transit, nor the reception centres were affected by the floods.

Explain the selection criteria for the targeted population

The selected criteria ensured that the humanitarian response of the Red Cross Society of Bosnia and Herzegovina was directed towards those who are in need of assistance. To ensure transparency and adhere to established norms and criteria, the Red Cross Society of Bosnia and Herzegovina collected information on the fulfillment of formal vulnerability criteria for flood-affected populations. As a result, it was found that 186 households out of the total 354 interviewed households (52.55 per cent) fulfill at least one of the vulnerability criteria. Out of the total number of interviewed households, 42 households (11.86 per cent) did not have any source of income.

One of the key objectives of the Red Cross Society of Bosnia and Herzegovina was to ensure that assistance reaches as many individuals in need as possible. To achieve this, one criterion was that households should not have received assistance from other donors, preventing duplication of support while ensuring that those who have not yet received assistance were prioritized.



Total Targeted Population

Women	700	Rural	60%
Girls (under 18)	100	Urban	40%
Men	600	People with disabilities (estimated)	1%
Boys (under 18)	100		
Total targeted population	1,500		

Risk and Security Considerations

Please indicate about potential operation risk for this operations and mitigation actions

Risk	Mitigation action
Households receiving assistance from other actors.	Baseline survey conducted to avoid duplication.
The potential for additional rainfall and subsequent river flooding leading to diverse needs across various regions.	The real-time process monitoring.

Please indicate any security and safety concerns for this operation

Damaged infrastructure, a risk of new landslides, civil protection units not equipped and ready to deal with new similar situations.

Implementation



Multi Purpose Cash

Budget: CHF 56,477

Targeted Persons: 600

Assisted Persons: 565

Indicators

Title	Target	Actual
Percentage of people reporting that the assistance was delivered in a safe, accessible, accountable and participatory manner	70	99
Percentage of households receiving CVA support that report being able to sufficiently meet their basic needs	70	68
Total amount of cash distributed in CHF	50,505	43,170
Number of people reached with CVA assistance	600	565



Narrative description of achievements

After the devastating floods and adequate responding to diverse needs of the affected population and according to the assessment of the Red Cross Society of Bosnia and Herzegovina, a multi-purpose cash assistance was considered as the most fitting aid. Analyzing the minimum consumer basket, it was decided that BAM 500 would be sufficient to cover the basic needs of those affected by floods. This approach offered initial assistance to the affected population, allowing people to concentrate on the ongoing recovery process after the disaster.

Regarding the distribution modality, the Red Cross Society of Bosnia and Herzegovina chose to utilize the Post Office due to its extensive network of branches, efficient and effective distribution capabilities and the positive feedback received from supported individuals in previous operations. This modality ensured not only the highest levels of safety and discretion for the recipients but also facilitated a seamless and secure delivery of assistance.

Lessons Learnt

Understanding the difficulties of daily life in specific communities emerged as a pivotal lesson as it allowed to significantly streamline the selection process during crises, ensuring a more nuanced and targeted response.

Learning from past operations, the percentage of people who can receive cash assistance was especially crucial for planning. This previous experience served as a compass, guiding the formulation of future response strategies. Each of a multi-purpose cash in past operation was integral to a more informed and effective crisis response. By comprehending the intricacies of communities and incorporating past experiences into the planning process, the Red Cross Society of Bosnia and Herzegovina positions itself for a future where assistance is not only timely but precisely tailored to the diverse needs of those affected by disasters and crises.

Challenges

The Red Cross Society of Bosnia and Herzegovina encountered distinctive challenges that influenced the trajectory of the assistance efforts. A significant percentage of the affected objects belonged to individuals who, while owning these homes/objects, did not reside within the borders of Bosnia and Herzegovina - they worked abroad. This presented a unique challenge, as those households were excluded from consideration for aid. Without having information directly from a household representative, it was impossible to gather the necessary details for providing assistance.

On the other hand, a notable number of residents expressed that they do not need assistance. In light of these factors, the actual number of people receiving cash assistance was slightly different from the initial projections. The challenges in this phase showed that disaster response is ever-changing, requiring flexibility and constant evaluation of strategies to make sure help reaches those who need it most.



Budget: CHF 5,379

Targeted Persons: 200

Assisted Persons: 273

Indicators

Title	Target	Actual
Number of awareness raising sessions conducted	12	5
Number of people attending awareness raising sessions	200	273

Narrative description of achievements

Following the detailed assessment of the Red Cross Society of Bosnia and Herzegovina, a number of workshops were organized with the purpose of disseminating health information among the affected population. The local branches organized educational workshops to raise awareness and share knowledge about the importance of preventative measures and health protection. The workshops were held in the premises of local Red Cross as well as through visits to households directly impacted by floods.



As part of health education, the Red Cross Society of Bosnia and Herzegovina distributed the manual "Health in Emergencies" ensuring that local organizations and communities have the necessary knowledge for resilient responses to health challenges in the face of future disasters. These manuals were translated and adapted into the local language for better accessibility and understanding.

Lessons Learnt

The organized workshops enabled the Red Cross branches to respond to the emergency health needs of affected people in a more coordinated and collaborative way.

In addition to rapid disaster response, educational health workshops remain imperative in order to bolster the resilience of communities and contribute significantly to safeguarding the health of affected populations, especially vulnerable groups.

Challenges

A significant number of households affected by the floods lacked representatives residing in Bosnia and Herzegovina as they were working abroad. Therefore, the scope and activities of the health workshops had to be strategically adjusted to accommodate this unique circumstance.



Water, Sanitation And Hygiene

Budget: CHF 45,182

Targeted Persons: 900

Assisted Persons: 1,000

Indicators

Title	Target	Actual
Percentage of people satisfied with the quality and quantity of received items	70	99
Number of households receiving hygiene and disinfection sets	300	300

Narrative description of achievements

In the aftermath of the receding floods, communities found themselves grappling with unprecedented challenges. Lives, health, homes, and everyday essentials were all thrust into jeopardy by the destructive flood wave. Recognizing the urgent need for rapid and effective action, the Red Cross Society of Bosnia and Herzegovina responded quickly and effectively to assist the affected population.

The immediate action was to provide essential tools and goods crucial for the immediate response to the flood-affected households. As the floodwaters withdrew, assistance reached a thousand individuals, ensuring that the most vulnerable did not face the aftermath alone. Spectrum of needs was offered to those in need ranging from basic needs, tools essential for cleaning, social and health services.

Lessons Learnt

One of the main lessons learned was the importance of strategic planning and initiating procurement processes in the early stages of the operation. The efficient acquisition of necessary supplies and resources proved to be fundamental for the successful implementation of planned activities. The ability to foresee needs, identify reliable sources and navigate the complexities of procurement laid the foundation for a successful response.

A comprehensive analysis of both National Society headquarters and local branches' logistical capacities emerged as another crucial lesson. Understanding the logistical landscape was instrumental in ensuring the effective distribution of in-kind assistance to the affected population. By evaluating the existing infrastructure and capacities of both the National Society and local organizations, resources were adequately deployed and timeframe planned which led to more effective and targeted response.



Challenges

At the start of the operation, the Red Cross Society of Bosnia and Herzegovina encountered notable differences between initial market research and final procurement costs. While suppliers accepted the bids and complied with them within local legislation, the lack of detailed explanation on low costs raised concerns about item quality and project sustainability. The situation required additional time for a thorough review of the procurement process to ensure transparency and value for money.

Additionally, acquiring specific items, such as backpack sprayers, proved to be difficult due to their scarcity in the local market. This was unexpected, as the market research did not highlight a limited supply. This challenge complicated the execution of planned activities.



National Society Strengthening

Budget: CHF 19,467

Targeted Persons: 100

Assisted Persons: 50

Indicators

Title	Target	Actual
Number of field visits conducted	12	6
Number of volunteers involved in the operation	24	20
Number of staff involved in the operation	15	10

Narrative description of achievements

Voluntary service is a fundamental principle of the Red Cross organization. While the permanent staff is crucial for executing all activities, especially in large-scale operations, they are not able to respond to all planned disaster activities. Therefore, the pivotal role of volunteers in providing assistance was evident in this operation.

Effective coordination is fundamental for successful operations, ensuring that the local branches implement activities appropriately. The work of the Disaster Management Coordinator within the structure of the Red Cross Society of Bosnia and Herzegovina ensured the proper and optimal implementation of planned activities. The newly appointed Procurement Officer ensured that the procurement process, within the framework of this operation, adhered to prescribed procedures while maintaining transparency. The Cash and Voucher Assistance (CVA) component, as one of the crucial parts of the operation, required the involvement of a qualified personnel within the Red Cross Society of Bosnia and Herzegovina who ensured the appropriate implementation of CVA activities, which are particularly sensitive given the public scrutiny on cash distribution.

Field visits played a pivotal role in aid distribution enabling direct communication with the affected population and setting the direction of activities.

Lessons Learnt

The Lessons Learned Workshop (LLW) provided a valuable opportunity to gather the experiences gained from the implementation of this operation and served as a foundation for enhancing future disaster response activities conducted by the Red Cross Society of Bosnia and Herzegovina.

During the crisis, financial preparedness was observed as an important aspect in minimizing damage and improving response effectiveness. Having a dependable financial source is essential since financial resources are the lifeblood of operations. Securing funds early on, particularly for operational costs involving both volunteers and staff, was crucial. This proactive approach ensured that fundamental needs were addressed without unnecessary delays.

The role of volunteers was a foundational lesson in this operation, especially when it comes to prioritizing their safety amidst on-the-ground hazards. Volunteers and staff exposed to the dangers in disaster-stricken communities need sufficient resources and attention to safeguard their well-being.



Challenges

Addressing the challenges of ensuring all volunteers were adequately trained and prepared for on-the-ground hazards, as well as adequately resourcing safety measures for staff, underscored the need for additional resources dedicated to ensuring their well-being. Mitigating similar challenges in the future will contribute to the continuous improvement of the Red Cross Society of Bosnia and Herzegovina's disaster response capabilities.



Financial Report

DREF Operation

FINAL FINANCIAL REPORT

Selected Parameters			
Reporting Timeframe	2023/5-12	Operation	MDRBA015
Budget Timeframe	2023/5-12	Budget	APPROVED

Prepared on 30/Jan/2024

All figures are in Swiss Francs (CHF)

MDRBA015 - Bosnia and Herzegovina - Flood 2023

Operating Timeframe: 29 May 2023 to 30 Sep 2023

I. Summary

Opening Balance	0
Funds & Other Income	126,505
DREF Response Pillar	126,505
Expenditure	-88,268
Closing Balance	38,237

II. Expenditure by planned operations / enabling approaches

Description	Budget	Expenditure	Variance
PO01 - Shelter and Basic Household Items			0
PO02 - Livelihoods			0
PO03 - Multi-purpose Cash	56,477	48,082	8,396
PO04 - Health	5,379	5,312	67
PO05 - Water, Sanitation & Hygiene	45,182	21,237	23,945
PO06 - Protection, Gender and Inclusion			0
PO07 - Education			0
PO08 - Migration			0
PO09 - Risk Reduction, Climate Adaptation and Recovery			0
PO10 - Community Engagement and Accountability			0
PO11 - Environmental Sustainability			0
Planned Operations Total	107,038	74,630	32,408
EA01 - Coordination and Partnerships			0
EA02 - Secretariat Services			0
EA03 - National Society Strengthening	19,467	13,638	5,828
Enabling Approaches Total	19,467	13,638	5,828
Grand Total	126,505	88,268	38,236

[Click here for the complete financial report](#)

Please explain variances (if any)

Please refer to the Multi Purpose Cash section under Planned Intervention for explanation.



Contact Information

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IFRC Project Manager: Nemanja ZEKIC, Project Manager, Nemanja.ZEKIC@ifrc.org

IFRC focal point for the emergency: Agnes Rajacic, Senior DREF Officer, agnes.rajacic@ifrc.org

Media Contact: Indira Kriještorec, PR, indira.krijestorac@ckfbih.ba

[Click here for reference](#)



Red Cross Society of Bosnia and Herzegovina



Assessment of the Situation and Needs of Flood-Affected Communities, May 2023

July, 2023.



DRUŠTVO CRVENOG KRSTA/KRIŽA BOSNE I HERCEGOVINE
ДРУШТВО ЦРВЕНОГ КРСТА/КРИЖА БОСНЕ И ХЕРЦЕГОВИНЕ
RED CROSS SOCIETY OF BOSNIA AND HERZEGOVINA

Responsible Organization:	The Red Cross Society of Bosnia and Herzegovina
Partner Organization:	The International Federation of Red Cross and Red Crescent Societies (IFRC)
Organizations involved in the implementation of the assessment:	The Red Cross of Republika Srpska, The Red Cross of the Federation of Bosnia and Herzegovina
Assessment conducted by:	Stefan Lopatić
Representative of the partner organization:	Nemanja Zekić
Involved in the creation:	Gordana Ostojić, Mahir Mulahasanović

Cover Photos

Right Photo	Kostajnica, The Red Cross of Republika Srpska, 18 May 2023
Left Photo	Bihać, The Red Cross of the Federation of Bosnia and Herzegovina, 16 May 2023.

Country:	Bosnia and Herzegovina
Organization:	The Red Cross Society of Bosnia and Herzegovina
Address:	Kranjčevićeva 2, 71 000 Sarajevo
Program:	Disaster Preparedness and Response

Content

1. Introduction	1
2. Research Methodology	2
2.1. Identification of Target Groups	2
2.2. Sources and Literature	2
2.3. Challenges in Research Implementation	3
3. Local Context	4
3.1. Position of Bosnia and Herzegovina	4
3.2. Vulnerability of Bosnia and Herzegovina to Natural Disasters	4
3.3. Development of Local Communities in Bosnia and Herzegovina	5
4. Condition, Needs and Vulnerability of Communities Affected by Floods (May 2023)	7
4.1. Demographic Overview of the Flood-Affected Population	7
4.2. Vulnerability of Communities Affected by Floods	8
4.3. Needs of the Flood-Affected Population	11
5. Conclusion	11

1. Introduction

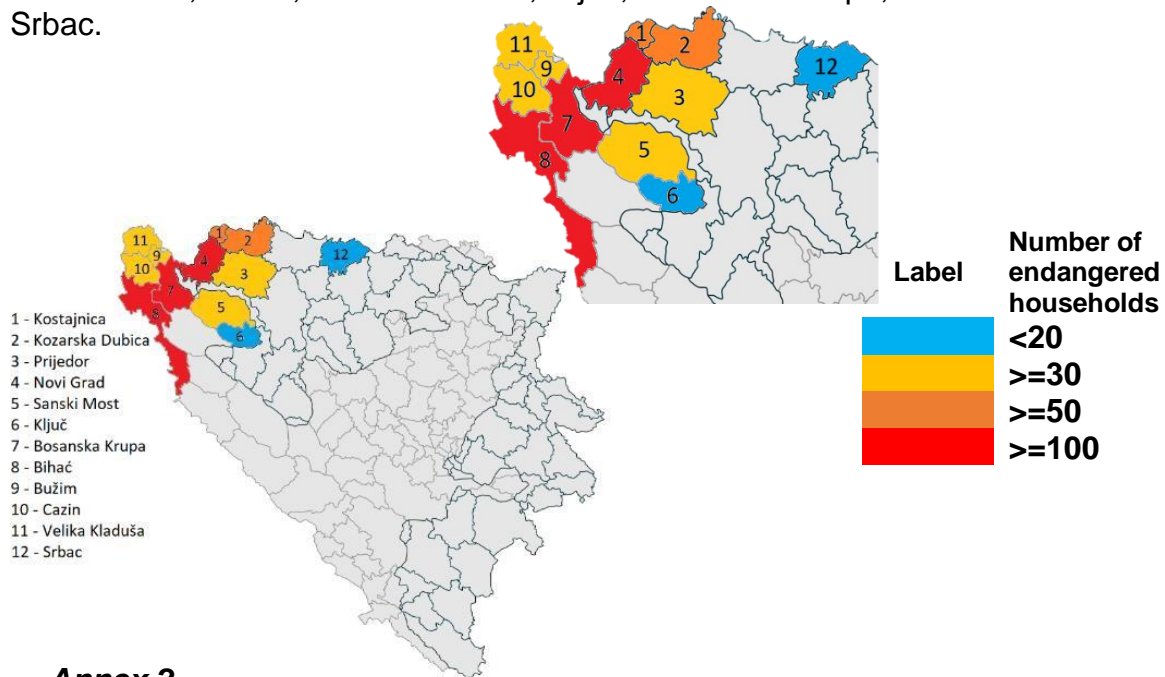
The spring of 2023 was characterized by an unusually high level of precipitation. The most intense rainfall was experienced in the northwestern part of Bosnia and Herzegovina¹, where 44 mm of rain fell during the night of 14-15 May². From 14 until 14 May³ rained more than 40 mm per day. The heavy rain fall caused the water levels of rivers in the region to reach critical levels as shown in the table below:

No	River	Critical points	Changes in water levels	Measurement date
1.	Una	100 cm	170 cm ⁴	17 May 2023
2.	Sana	380 cm	405 cm ⁵	17 May 2023

Annex 1

Note: The figure shows only water levels and critical points in the major rivers in the northwestern part of Bosnia and Herzegovina. Critical water levels were also reached in smaller rivers in this region including Mutnica, Trežibat, Bužimnica, Sanica and other minor tributaries of the Sana and Una rivers.

The heavy rains caused floods in 12 cities and municipalities in the northwestern part of Bosnia and Herzegovina, including: Novi Grad, Prijedor, Kostajnica, Bihać, Bužim, Sanski Most, Cazin, Velika Kladuša, Ključ, Bosanska Krupa, Kozarska Dubica and Srbac.



Annex 2

¹ This primarily pertains to the territory of the Una-Sana Canton (Federation of Bosnia and Herzegovina) and the Prijedor region (Republika Srpska)

² Summary of the regular report on the status of natural and other disasters in the Federation of Bosnia and Herzegovina for the period of 14 to 15 May 2023, until 10:00 AM, <http://www.fucz.gov.ba/sazetak-redovnog-izvjestaja-o-stanju-prirodnih-i-drugih-nesreca-na-podrucju-federacije-bih-za-dane-14-15-05-2023-godine-do-1000-sati/>.

³ Daily Reports of the Federal Civil Protection Administration, <http://www.fucz.gov.ba/category/izvjestaji/page/8/>.

⁴ Summary of the regular report on the status of natural and other disasters in the Federation of Bosnia and Herzegovina for the period of 17 to 18 May 2023, until 10:00 AM, <http://www.fucz.gov.ba/sazetak-redovnog-izvjestaja-o-stanju-prirodnih-i-drugih-nesreca-na-podrucju-federacije-bih-za-dane-17-18-05-2023-godine-do-1000-sati/>.

⁵ Ibid.

2. Research Methodology

2.1. Identification of target groups

This assessment contains an analysis of the situation and the needs of the population in the areas affected by the floods in May 2023⁶, with specific emphasis on the following factors:

- Vulnerability of Bosnia and Herzegovina to natural disasters, with a special focus on the flood-affected region in May 2023.
- Condition of the communities affected by the floods with particular attention on the northwestern part of Bosnia and Herzegovina.
- Flood damage to property and loss of essential resources and livelihoods in the flood-affected area.
- Vulnerability of the population in the communities affected by the floods.
- Needs of the population affected by the floods.

2.2. Sources and literature

The Red Cross Society of Bosnia and Herzegovina aimed to assess the state and needs of communities affected by the flood occurred in May 2023 using relevant information and official documents from stakeholders. This was to ensure objectivity in the organization's operations and align with the Fundamental Principles, mission and mandate of the Red Cross Red Crescent Movement. The Red Cross Society of Bosnia and Herzegovina primarily relied on the following sources and literature during the preparation of this assessment:

Overview of Sources Used in the Assessment Preparation		
Source Title	Institution/Organization Responsible for Compilation	Year of Publication
<i>Decision on the Level of Development of Local Self-Government Units in Republika Srpska for 2023 (number: 04/1-012-2-3594/22, dated 29 September 2022)</i>	<i>Government of Republika Srpska</i>	2022
<i>Socioeconomic Indicators by the Municipalities in the Federation of Bosnia and Herzegovina for 2022</i>	<i>Federal Institute for Development Programming</i>	2023
<i>Census of Population in Bosnia and Herzegovina⁷</i>	<i>Bosnia and Herzegovina</i>	2013
<i>Assessment of the State and Needs of the Flood-Affected Population</i>	<i>The Red Cross Society of Bosnia and Herzegovina</i>	2023
<i>Bosnia and Herzegovina in Numbers 2022</i>	<i>The Agency for Statistics of Bosnia and Herzegovina</i>	2023

⁶ For more details, please refer to Section 1. Introduction.

⁷ <http://www.statistika.ba/>

<i>Statistical Group Databases</i> ⁸	<i>The Agency for Statistics of Bosnia and Herzegovina</i>	2023
Overview of literature used in the assessment preparation		
Literature Title	Institution/Organization Responsible for Compilation	Year of Publication
<i>Climate Risk Country Profile Bosnia and Herzegovina</i>	<i>World Bank Group</i>	2021
<i>Disaster Response Assessment and Roadmap for Bosnia and Herzegovina</i>	<i>UNDP</i>	2018

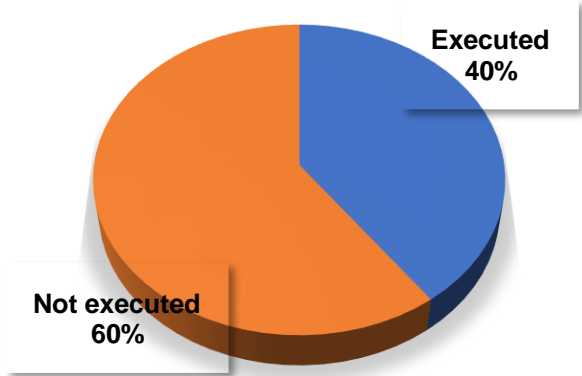
Annex 3

2.3. Challenges in research implementation

The information collected by local organizations within the structure of the Red Cross Society of Bosnia and Herzegovina was gathered through direct conversations with residents affected by the floods. This information constitutes the primary source for this study and reflects the immediate needs of the affected population. Based on initial information received by the Red Cross Society of Bosnia and Herzegovina, and in coordination with other relevant stakeholders - particularly the Civil Protection units in the flood-affected communities - the objective was to interview representatives from 887 households impacted by the floods. Between 12 to 13 June 2023, activities were carried out to gather information on the situation and requirements of the flood-affected population. During this period, the local Red Cross branches successfully conducted interviews in 354 households, which accounted for 39.91% of the total households designated for interviews within the scope of information collection regarding their situation and needs.

Due to the following factors, less than 40% of planned interviewed were carried out.

- A considerable number of households whose properties were damaged in the May 2023 floods do not reside within the territory of Bosnia and Herzegovina⁹.
- Many households affected by the floods shared that they can respond to the incurred damages and their basic needs without the Red Cross assistance. As a result, they declined to participate in the distribution of assistance conducted by the Red Cross organization in response to the floods.



Annex 4

⁸ <https://bhas.gov.ba/Pivot/>

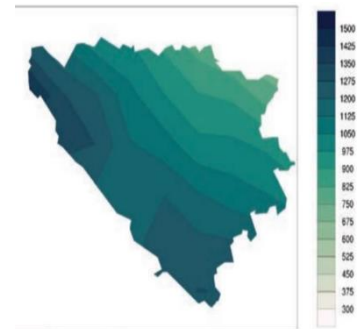
⁹ Based on the information provided by the local Red Cross organizations, approximately 300 households whose properties were damaged in the floods are residing outside the territory of Bosnia and Herzegovina.

- Certain households affected by the floods declined to provide the requested information to the Red Cross organization, which hindered the interview process.

3. Local Context

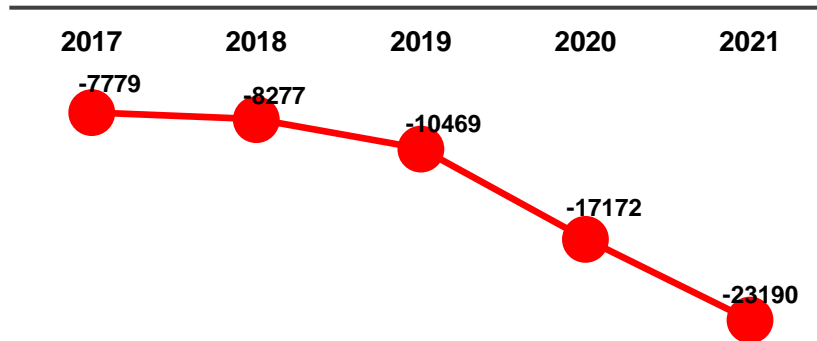
3.1. Position of Bosnia and Herzegovina

Located in southeastern Europe, Bosnia and Herzegovina covers an area of 51,209 square kilometers, with 51,197 square kilometers being land and 12.2 square kilometers being water. Topographically, most of Bosnia and Herzegovina is hilly and mountainous terrain, with 5% of the territory being flat areas, 24% hilly, 42% mountainous and 29% karst regions.¹⁰



Annex 5

The estimated population of Bosnia and Herzegovina in 2020 was 3.3 million people. Since the mid-2000s, the country has experienced a negative natural growth rate (-0,6% annually¹¹), and in 2021 alone, a negative natural growth of 23,190 individuals was recorded.¹²



Annex 6

3.2. Vulnerability of Bosnia and Herzegovina to natural disasters

Bosnia and Herzegovina is affected by frequent and devastating disasters¹³, and global climate change has increased disaster risk in the country.

Floods represent one of the largest natural hazards in Bosnia and Herzegovina. 64 out of 79 municipalities in the Federation of Bosnia and Herzegovina are exposed to

¹⁰ World Bank Group, Climate risk country profile Bosnia and Herzegovina, 2021, page 2 (WBG, Climate risk).

¹¹ WBG, Climate risk, page 2.

¹² The Agency for Statistics of Bosnia and Herzegovina, Bosnia and Herzegovina in Numbers 2022, 2023, page 11.

¹³ UNDP, Disaster Response Assessment and Roadmap for Bosnia and Herzegovina, 2018, page 7.

flood risks. In Republika Srpska, 43 out of 64 local self-government units (67%)¹⁴ are exposed to flood risks, as well as the entire territory of the Brčko District of Bosnia and Herzegovina. In northwestern and southeastern parts, the highest level of precipitation in 30 years¹⁵ was recorded this summer.

According to data of the European Commission, Bosnia and Herzegovina has been assigned a score of 2,3¹⁶ disaster vulnerability index, which indicates significant susceptibility to disasters.

Information collected by the Red Cross Society of Bosnia and Herzegovina, shows that local communities affected by the floods in May 2023 have been exposed to flooding for a prolonged period. As emphasized by representatives of relevant disaster preparedness and response stakeholders, local communities have undertaken various activities such as cleaning channels and rebuilding levees. However, not all these efforts have been sufficient to permanently control the flood risk. To achieve a long-term solution for flooding in the northwestern part of Bosnia and Herzegovina, significant investments are needed, for which local communities lack independent capacities.

3.3. Development of local communities in Bosnia and Herzegovina

Out of the 142 municipalities/cities in Bosnia and Herzegovina, i.e., 64 local self-government units in Republika Srpska and 78 local self-government units in the Federation of Bosnia and Herzegovina, 65 municipalities are classified as underdeveloped or extremely underdeveloped areas. This means that 45% of all municipalities in Bosnia and Herzegovina fall under the category of underdeveloped or extremely underdeveloped areas. The distribution is as follows:

- In Republika Srpska:
 - 15 local communities are classified as underdeveloped municipalities.¹⁷
 - 20 local communities are classified as extremely underdeveloped municipalities.¹⁸
 - In accordance with the above, 55% of municipalities in Republika Srpska are categorized as underdeveloped or extremely underdeveloped areas. (23% are underdeveloped areas and 22% are extremely underdeveloped areas).

- In the Federation of Bosnia and Herzegovina:
 - 18 local communities fall under Category IV (equivalent to underdeveloped areas).¹⁹
 - 12 local communities fall under Category V (equivalent to extremely underdeveloped areas).²⁰

¹⁴ https://www.vladars.net/sr-SP-Cyrl/Vlada/Ministarstva/muls/Pages/gradovi_i_opstine.aspx

¹⁵ WBG, Climate risk, page 6.

¹⁶ <https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Risk-Facts-Figures>

¹⁷ Decision on the Degree of Development of Local Self-Government Units in Republika Srpska for the 2023 (number: 04/1-012-2-3594/22, dated 29 September 2022) (RS, Government Decision on Degree of Development)

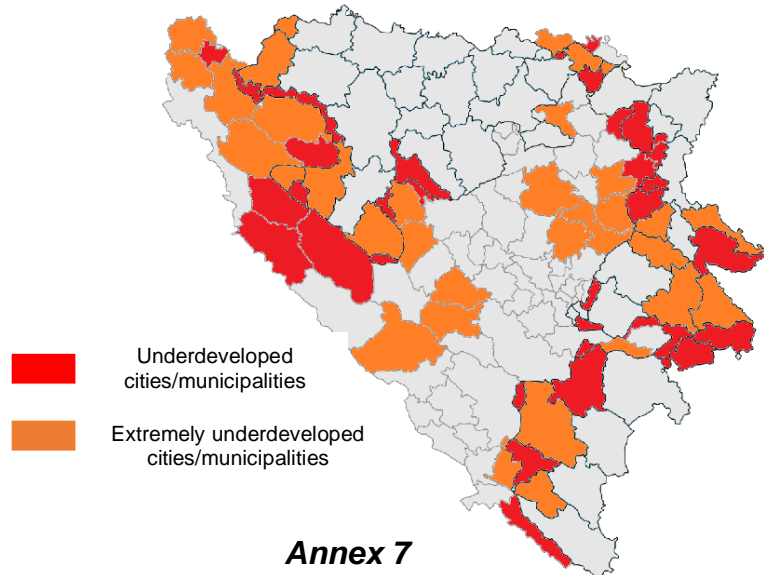
¹⁸ RS, Government Decision on Degree of Development.

¹⁹ Federal Institute, Socioeconomic Indicators, page 13.

²⁰ Federal Institute, Socioeconomic Indicators, page 13.

- Based on the above, 38% of municipalities in the Federation of Bosnia and Herzegovina are classified as underdeveloped or extremely underdeveloped areas (23% are underdeveloped areas and 15% are extremely underdeveloped areas).

Based on the indicators, it is evident that 23% of all municipalities in Bosnia and Herzegovina are categorized as underdeveloped areas, while 22% of all municipalities and cities are in extremely underdeveloped areas. According to data from the 2013 population census in Bosnia and Herzegovina, 803,829 residents in Bosnia and Herzegovina live in underdeveloped and extremely underdeveloped areas, accounting for 23% of the total population. The least developed areas of the country have the highest level of rainfall and flood risk.



Annex 7

According to data released by the Association of Independent Trade Unions of Bosnia and Herzegovina, the average consumer basket for April 2023 amounted to 2,916.90 BAM.²¹

According to the Agency for Statistics of Bosnia and Herzegovina, the average net salary²² in April 2023 was 1,241.00 BAM²³, which is only 43% of the average consumer basket. It is therefore evident that:

- 38% of all municipalities in Bosnia and Herzegovina represent underdeveloped and extremely underdeveloped areas.
- 23% of the population, i.e., 803,829 inhabitants of Bosnia and Herzegovina, live in underdeveloped and extremely underdeveloped areas.
- The average salary in Bosnia and Herzegovina covers only 43% of the average consumer basket, meaning that 67% of employees in Bosnia and Herzegovina do not earn enough to pay for an average consumer basket.

²¹ <https://www.sssbih.com/sindikalna-potrosacka-korpa-za-april-2023-godine/>.



²² It refers to the amount paid to employees, i.e., the actual amount that employees receive after the gross salary is reduced by mandatory taxes and contributions.

²³ Agency for Statistics of Bosnia and Herzegovina, Average Monthly Paid Net Salaries of Employees, April 2023.





4. Condition, needs and vulnerability of communities affected by floods (May 2023)

4.1. Demographic overview of the flood-affected population



Through the execution of the research, with the aim of assessing the situation and needs of the population affected by the floods in May 2023, local organizations within the structure of the Red Cross Society of Bosnia and Herzegovina conducted 354 interviews with representatives of households affected by the floods between 12 to 30 June 2023. The overall rate of achievement in relation to the planned number of interviews was 39,91%.²⁴ During the research process, the Red Cross Society of Bosnia and Herzegovina gathered detailed data for 1,131 individuals, which includes:

Gender Structure of the Flood-Affected Population²⁵			
Male Population		Female Population	
	Total		Total
	575		556
	as a percentage of the total population		as a percentage of the total population
	50,84%		49,16%

Annex 8

Age Structure of the Flood-Affected Population²⁶			
Population Aged 0-5 Years		Population Aged 6-18 Years	
	Total		Total
	63		185
	as a percentage of the total population		as a percentage of the total population
	5,57%		16,36%
Population Aged 19-64 Years		Population Aged 65+ Years	
	Total		Total
	650		233
	as a percentage of the total population		as a percentage of the total population
	57,47%		20,60%

Annex 9







Gender and Age Structure of the Flood-Affected Population²⁷			
Male Population Aged 0-5 Years		Female Population Aged 0-5 Years	
	Total		Total
	38		25
	as a percentage of the total population		as a percentage of the total population
	6,61%		4,50%

²⁴ For more details, please refer to Chapter 2.3. Challenges in Research Implementation.

²⁵ This pertains solely to households that were willing to provide data to the Red Cross Society.

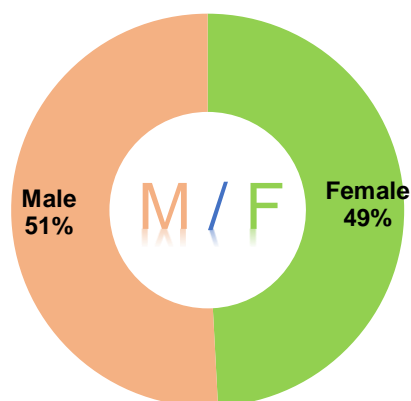
²⁶ This pertains solely to households that were willing to provide data to the Red Cross Society.

²⁷ This pertains solely to households that were willing to provide data to the Red Cross Society.

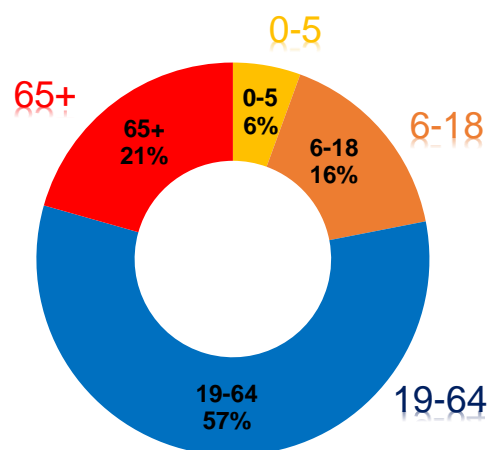
Male Population Aged 6-18 Years		Female Population Aged 6-18 Years	
	Total		Total
	101		84
	as a percentage of the total population		as a percentage of the total population
	17,57%		15,11%
Male Population Aged 19-64 Years		Female Population Aged 19-64 Years	
	Total		Total
	650		233
	as a percentage of the total population		as a percentage of the total population
	57,47%		20,60%
Male Population Aged 65+ Years		Female Population Aged 65+ Years	
	Total		Total
	108		125
	as a percentage of the total population		as a percentage of the total population
	18,78%		22,48%

Annex 10

Based on the previously mentioned data, the statistics on age and gender are as follows:



Annex 11



Annex 12

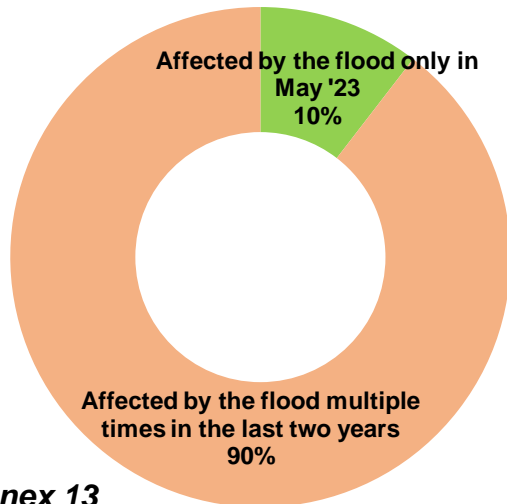
4.2. Vulnerability of communities affected by floods

The floods in May 2023 affected the territories of 12 municipalities and cities in the northwest part of Bosnia and Herzegovina.²⁸ According to data from official institutions²⁹, 8 out of the 12 flood affected municipalities/cities (66%) are in

²⁸ For more details, please refer to Chapter 1. Introduction.

²⁹ For more details, please refer to Chapter 3.3. Development of Local Communities in Bosnia and Herzegovina.

underdeveloped and extremely underdeveloped areas according to the World Bank Group³⁰, the flooded areas have average annual rainfall level of over 1,200 mm and are at high risk of flooding. As these areas are also underdeveloped local communities lack the capacity to address the chronic risk of the floods. This situation poses a grave threat to the lives and material possessions the vulnerable population.

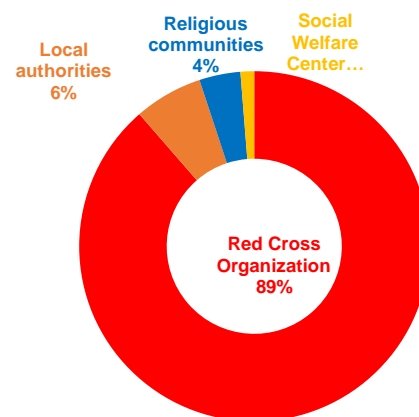


Annex 13

Based on the research conducted by the structure of the Red Cross of Bosnia and Herzegovina, 317 out of the total of 354 interviewed households (89,55%) have been flooded multiple times in the past two years. On average, the interviewed households had been affected by floods three times in the past two years. Among the households that have been flooded multiple times (317 households), a significant 240 households (75,71%) did not receive any assistance in response to the floods.

77 households received assistance from the following parties:

- Red Cross Organization: 70 households;
- Local authorities: 5 households;
- Religious communities: 3 households;
- Social Welfare Center: 1 household.

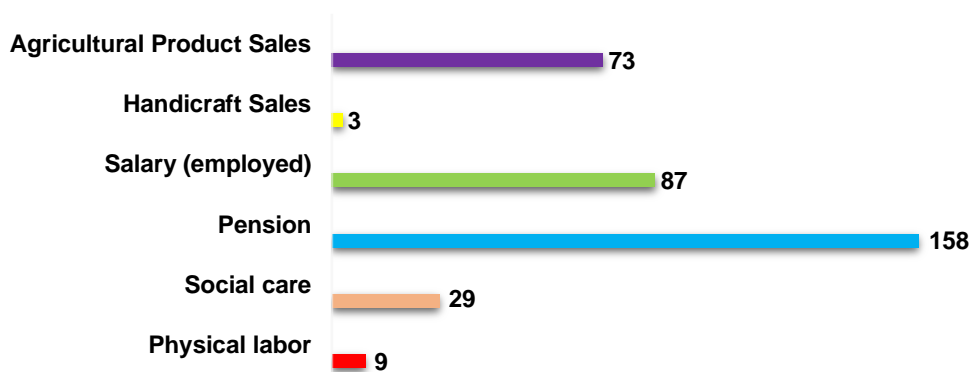


Annex 14

To ensure transparency and adhere to established norms and criteria, the Red Cross Society of Bosnia and Herzegovina collected information on the fulfillment of formal vulnerability criteria for flood-affected populations.³¹ As a result, it was found that 186 households out of the total 354 interviewed households 52,55% fulfill at least one documented vulnerability criteria issued by the relevant institutions. This accounts that a total of 623 individuals live in households that meet at least one vulnerability criteria, which constitutes 55,10% of the population. Out of the total number of interviewed households, 42 households or 11,86% do not have any source of income. For other households, the sources of income were identified as follows:

³⁰ For more details, please refer to Chapter 3.2. Exposure of Bosnia and Herzegovina to Natural Disasters

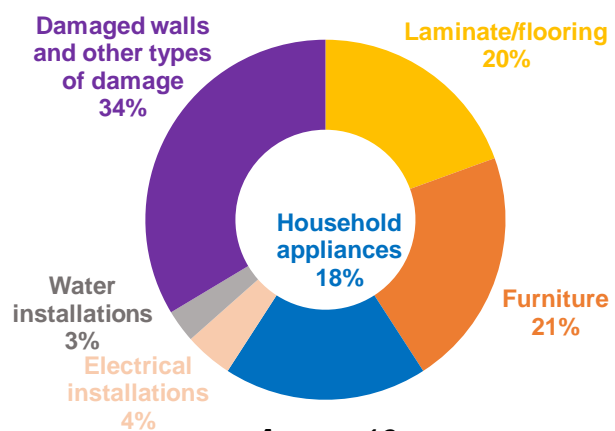
³¹ Explanation: The condition for determining that a certain household meets the vulnerability criterion was an official confirmation from the relevant institution. The experience of the Red Cross/Crescent organization shows that many households do not possess official confirmations from institutions about their vulnerability, but the living conditions of these households clearly indicate that they are in need of humanitarian assistance.



Annex 15

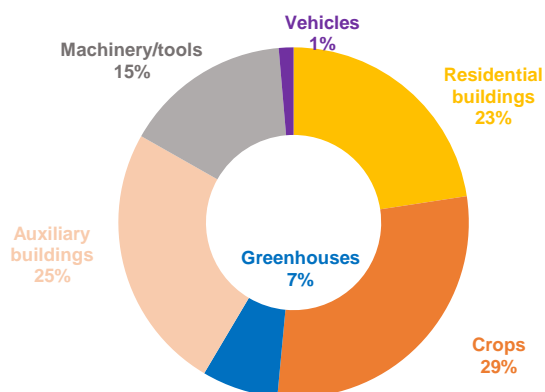
The flooding caused significant material damage, including:

- 183 residential buildings;
- 234 crops;
- 57 greenhouses;
- 200 auxiliary buildings;
- 125 machinery/tools;
- 11 vehicles.



Annex 16

Given that the sale of handicrafts, agricultural products and other items constitutes the main source of income for 24,36% of households (roughly a quarter of the affected households), the damage incurred to property and assets presents a major challenge to the daily lives of flood-affected people. Most of the residential buildings belonging to these households (89,54%) are occupied by tenants, 4% of households are renting their living space, and 5,5% are living in residential buildings owned by family members.



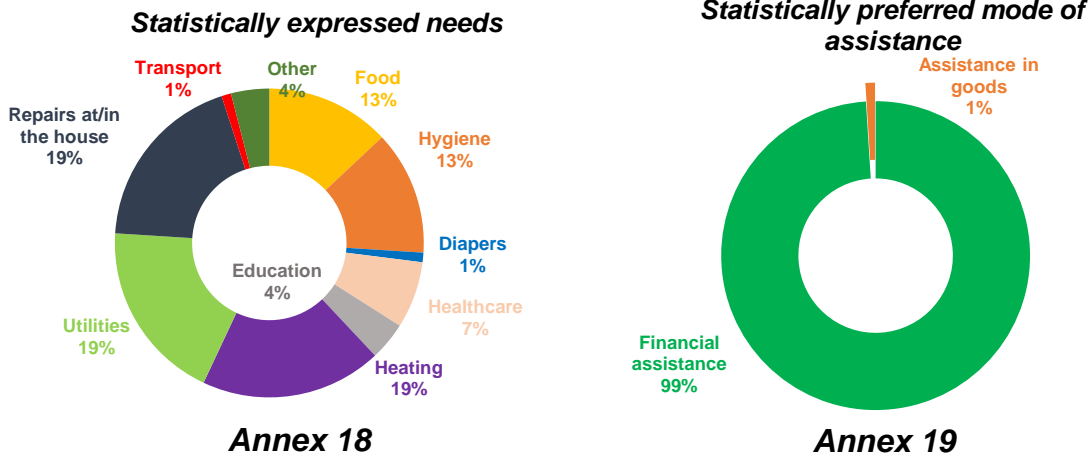
Annex 17

The analysis of damages to residential buildings reveals the following:

- Damaged laminate/flooring: 99 instances;
- Damaged furniture: 109 instances;
- Damaged household appliances: 93 instances;
- Damaged electrical installations: 22 instances;
- Damaged water installations: 15 instances;
- Damaged walls and other types of damage: 171 instances.

4.3. Needs of the flood-affected population

During the implementation of the research conducted by the structure of the Red Cross Society of Bosnia and Herzegovina for assessing the needs of the flood-affected population, the population affected by the floods highlighted the following needs and preferred modalities of assistance:



5. Conclusion

It has been observed that stakeholders within local communities lack essential goods and equipment to respond to floods (such as boots, water, etc.). It is clear that Bosnia and Herzegovina is susceptible to floods, making property insurance a necessity. Unfortunately, the economic situation does not allow for such insurance coverage. Reserves of goods for emergency repairs of damaged residential structures are crucial for safeguarding the lives and health of the flood-affected population.

In conclusion, addressing these challenges is vital for enhancing the resilience of communities in the face of flood risks. Efforts should be directed towards providing the necessary resources and equipment to local actors, ensuring that they are well-equipped to respond effectively to flood events. Additionally, finding alternative solutions for property insurance in regions prone to flooding is crucial, as it can significantly mitigate the financial burden on individuals and families in the aftermath of floods.

Furthermore, establishing robust reserves of goods for rapid repair of damaged homes is not just a practical necessity, but also a humanitarian imperative. By ensuring that affected populations have access to the essentials for recovery, we can better protect their lives, health, and overall well-being.

Since emergencies are re-occurring in the affected region which is at the same time one of the most under-developed in the country, agreements for early action and rapid deployments should be put in place in order to reach the most vulnerable population.

Red Cross should focus its efforts on disaster preparedness activities to increase the capacities of the vulnerable communities in the affected areas.

Ultimately, collaboration between government agencies, the Red Cross organization, NGOs, and local communities is essential in addressing these challenges comprehensively. Only through combined efforts can we create a safer environment, reduce the impact of floods, and provide the necessary support to those most affected. As we move forward, it is crucial to prioritize disaster preparedness and community resilience to build a more secure and sustainable future for all in Bosnia and Herzegovina.