

2018 - 2024

# BUILDING FLOOD RESILIENCE IN MONTENEGRO

# FINAL REPORT ON THE FLOOD RESILIENCE PROGRAM







The Zurich Flood Resilience Alliance is a multi-sectoral partnership which brings together community programmes, new research, shared knowledge and evidence-based influencing to build community flood resilience in developed and developing countries. We help people measure their resilience to floods and identify appropriate solutions before disaster strikes. Our vision is that floods should have no negative impact on people's ability to thrive. To achieve this, we are working to increase funding for flood resilience; strengthen global, national and subnational policies; and improve flood resilience practice. Find out more: www.floodresilience.net

#### **KEY CONTRIBUTORS:**

. . . . . . . . . . . . . . . . . .

**Red Cross of Montenegro**: Jelena Dubak, Nataša Uskoković, Goran Petrušić **IFRC**: Nebojsa Medojevic, Francisco Ianni, Luciana Escobar Saade, Cale Johnstone

Members of the Zurich Flood Resilience Alliance are funded by the Z Zurich Foundation, with the exception of Zurich Insurance Group. However, the views expressed in this publication do not necessarily reflect the official position of either the Foundation or the company.

### ACKNOWLEDGEMENTS

We extend our heartfelt gratitude to all those who have been part of this journey.

To our dedicated team members, both past and present, your hard work, passion, and innovative spirit have been the backbone of our initiatives. Your tireless efforts, often under challenging conditions, have transformed lives and strengthened communities.

We are profoundly grateful to our community partners and local leaders. Your collaboration, trust, and local knowledge have been invaluable. We also extend our appreciation to the partner organisations that have worked alongside us. Your cooperation and shared vision have been crucial in advancing our goals and amplifying our reach.

To the residents of the communities we serve, thank you for your resilience and active participation. Your stories of hope and perseverance inspire us daily and drive us to continue our work with renewed vigor.

As we reflect on the past five years, we are filled with pride for what we have achieved together and optimism for the future. Let us continue to work hand in hand, building on our successes and forging new paths toward a resilient and sustainable Montenegro.







# EXECUTIVE SUMMARY

At the core of this program was building the capacity of local communities, supporting them in identifying their needs and taking action to address some of those resilience priorities ... we were also very proud to be able to be the voice of the communities and share with other stakeholders our understanding of what vulnerable people need.

Jelena Dubak, Secretary General, Red Cross of Montenegro

Globally, flood risk is a major concern, with floods often leading to substantial economic and social ramifications that are projected to increase in the future. Between 2018 and 2024, the Red Cross of Montenegro, as part of the Zurich Flood Resilience Alliance (Alliance), worked to increase flood resilience in vulnerable communities. Flooding is the most common climate hazard in Montenegro, causing significant economic, ecological, social and health damage every year.<sup>1</sup>

Through the Zurich Flood Resilience Alliance, the Red Cross of Montenegro has implemented evidence-based resilience building interventions with individuals, families, local leaders and communities and has scaled up best practice and influenced national policies and strategic plans.

## **PILLARS OF CHANGE**

In this report, we explore **3 fundamental pillars of change** that have led to significant impact on flood resilience in Montenegro:



Individuals and families integrate flood resilience awareness and actions into their day-to-day lives.



Communities and local authorities prioritise environmental management and flood protection infrastructure.



National policy prioritises community needs, priorities, and capacities in relation to flood resilience.

The combination of these interconnected and interdependent approaches is the key to the program's impact.

#### LESSONS LEARNED AND RECOMMENDATIONS

As the climate crisis leads to more frequent and intense extreme events, as well as increased vulnerability of communities across the world, it is paramount that we scale up and deepen resilience work.

This report highlights how the achievements and challenges faced have resulted in important lessons learned and recommendations for resilience initiatives:



Understand and communicate how the program's work contributes to the bigger picture.



Ensure people are at the core of resilience-building actions.



Develop strong relationships with key local stakeholders.



Leverage organisational strengths for scaling up and sustainability.



The **Zurich Flood Resilience Alliance** (the Alliance) is a multi-sectoral partnership bringing together actors in the humanitarian, development, research, and private spheres to strengthen climate resilience. Driven by the vision of a future where floods have no negative impact on people's and businesses' ability to thrive, the Alliance combines community programs, new research, shared knowledge, and evidence-based influencing to build community flood resilience.

As the Alliance celebrates over ten years of operation, the collective impact of increasing flood resilience through community actions, scaling up and influencing work across **10 partners** and more than

**25 countries** has reached over

# **SMILLION PEOPLE**

Figure 1: Alliance activities and programs across the world





#### Figure 2: Scales of impact

# LOCAL

Deep and lifelong changes in mindsets and practices related to flood resilience.





# **SUBNATIONAL**

Replication and scaling up of best practice to broader populations and key sectors.



# NATIONAL

Integration of community priorities in national plans, policies and budgets.



## GLOBAL

Contribution of Alliance knowledge and experience to global initiatives.

Multi-sectoral partnerships bring together different points of view - governments, nonprofit organisations, academia, private companies such as Zurich and most importantly, community perspectives - to work towards a common goal. This collaboration allows for the sharing of resources, experiences, and ideas, leading to more effective and coordinated efforts.

# INSTITUTIONAL CONTEXT

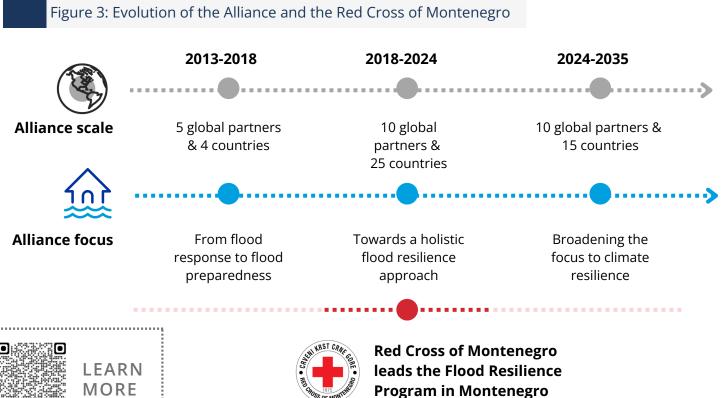
As a founding partner of the Alliance, the **International Federation of Red Cross and Red** Crescent Societies (IFRC) has supported the strategic direction and empowerment of country programs and local communities to take the lead in understanding, preparing for and adapting to flood risks across the regions of Africa, Americas, Asia-Pacific and Europe.

The Red Cross of Montenegro, founded in 1875, is the oldest Red Cross organisation in the Balkans and is recognised legally by Montenegrin law as an auxiliary to the state. As such, the Red Cross of

Montenegro has a mandate to conduct actions related to protection and rescue, as an integral part of the disaster management system in emergency situations. This includes, among many others, activities in the areas of disaster preparedness and response, disaster risk reduction, and climate change adaptation. In addition to the core local work, the Red Cross of Montenegro participates in national and municipal bodies dedicated to disaster risk management led by the Rescue and Protection Department. Key to this ambition is a network of 23 local branches across the country through which activities are implemented.

The Red Cross of Montenegro has a specific role within the civil protection system in the country, partly due to the Law on the Red Cross of Montenegro, which enables us to be members of both local and national crisis committees dealing with different emergencies. But even during peaceful times we are also invited to be members of different working groups or boards that deal with the issue of civil protection, DRR, and resilience in general.

Nataša Uskoković, International Relations Advisor, Red Cross of Montenegro



# COUNTRY CONTEXT

Skadar Lake is the largest lake in Southern Europe, located on the border of Montenegro and Albania. As part of the Alliance, the Red Cross of Montenegro has focused local community resilience activities on primarily rural areas north of Skadar Lake in the Zeta Municipality. On the other side of the border, the Albanian Red Cross has led flood resilience actions in communities in the south-eastern outflow areas of Skadar Lake.

At the end of 2009, areas of Skadar Lake were affected by floods caused by heavy rainfall and, as a result, the level of Skadar Lake reached its maximum of 9.86m (metres above sea level). A year later the level of the lake increased even further to 10.44m causing floods described by the Montenegrin government as the "worst floods ever recorded", affecting over 5,000 people.<sup>2</sup>

Montenegro's flood-prone regions, such as those around Skadar Lake, are characterized by communities that rely heavily on agriculture and livestock for their livelihoods. As a result, flooding has an important impact on family incomes.

Given this area contributes significantly to agricultural production at a national scale, flooding often has flow-on effects to the whole economy of the region.

#### Figure 4: Target communities

Zeta Municipality

Around 63 % of the total water inflow to the lake comes via the Moraca River. At the southeast end, the Bojana river connects Skadar Lake with the Adriatic Sea.<sup>3</sup>

Heavy rainfall extended rainy periods and the melting of snow can lead to an excess of water flowing into the lake.

Flooding is further intensified by a complex hydrological system whereby the capacity of the Bojana River to absorb excess water from Skadar Lake is limited by other inflows from the Drin River.

# OUR IMPACT

In the past five years, the Red Cross of Montenegro worked at the local level to enhance flood resilience in vulnerable communities around Skadar Lake. The program collaborated with local authorities to implement a blend of evidence-based structural and non-structural flood protection measures, joining efforts for greater collective impact. The Red Cross scaled up its impact by leveraging participation in various national committees and working groups to integrate best practice and local voices from the flood resilience work into national policy.

### +31,000 lives improved

New attitudes and behaviours that have a deep and sustained positive impact on people's lives and flood protection infrastructure that will provide long-term benefits.

### +100,000 indirect reach

*Population that benefit from community interventions, scaling up and influencing initiatives.* 



Activities carried out in rural communities and with municipal and national actors.



Hundreds of resilience actions implemented, public awareness campaigns, community workshops, local volunteer training and engagement programs, school-based programs, and stakeholder meetings to ensure the program remained locally driven.

# Mujo's story

Mujo lives in the community of Ponari, alongside a tributary of the Moraca River. He works as a farmer, selling his produce, including potatoes, watermelon and paprika at the local market. When the level of the river rises, his income and livelihood are at risk. During the historic floods of 2010, Mujo's family was evacuated along with the majority of the population of Ponari. The flood water destroyed crops and caused significant damage to homes and other infrastructure in the community. Through the Red Cross of Montenegro's collaboration with the Zeta Municipality, people from the community came together to discuss the needs of the community. As result, First Aid trainings and materials were shared to raise awareness of risk and increase skills within the local population. The community's aging and damaged flood wall was repaired, reinforced, and enhanced to withstand even bigger floods in the future. Mujo says "this will protect the community from future flooding". Protecting lives and livelihoods is key to increasing community flood resilience.

### OBJECTIVES



Facilitate communities' assessment of risks, capacities, needs, and priorities regarding flood preparedness. Inform, involve, and empower communities to develop and implement flood preparedness activities and small-scale mitigation projects. Enhance capacity of Red Cross of Montenegro staff and volunteers to support community resilience activities in floodprone communities.



# FROM MEASURING TO BUILDING RESILIENCE

The **Flood Resilience Measurement for Communities** (FRMC) is a framework and tool developed by the Alliance. As a decision support tool for both community programming and policy change, the FRMC supports a deeper and systems-level understanding of resilience gaps and strengths designed around the five capitals: natural, financial, human, social and physical.



FRMC baseline and endline studies carried out in 6 rural communities.

**Baseline FRMC studies** strengthen understanding of the risk context at local and subnational levels, support connections with stakeholders, identify priorities and potential entry points, and define locally led interventions.



By **integrating community voices**, the FRMC data confirmed flood resilience needs as identified by municipal authorities, ensuring the Red Cross of Montenegro could advocate for cofinancing of solutions that were of greatest relevance and interest to the local population. Furthermore, the Zeta Municipality expressed in interest in accessing the full set of FRMC results in order to integrate the community perspective into initiatives **beyond the scope of the program**.

**Endline FRMC studies** are key to learning how resilience changes in response to diverse interventions and to providing up-to-date information to stakeholders to support ongoing resilience-building.

Through the implementation of FRMC endlines in Montenegro, it was clear to see greatest improvements in flood resilience related to the human and social capitals, which is in line with the focus of the Red Cross Flood Resilience Program.

#### Notable improvements:

- First aid knowledgeAsset protection
- Community participation in flood related activities
- Future flood risk awareness

#### **Critical entry points:**

- Asset protection knowledge
- First aid knowledge
  - Community
- participation in flood related activities
- Early Warning Systems
- Large-scale flood protection

While the Red Cross of Montenegro is experienced in assessing local needs and conducting baseline and endline analyses, the FRMC represented a more extensive, technical, and complex framework for measuring resilience which required a greater investment of expertise, time, and financial resources. A number of important lessons learned emerged from this experience.

# The process is most effective when the methodology is adapted to the context:

- Translate and adapt the data collection questions to ensure respondents understand what is being asked and can provide accurate and relevant responses.
- Ensure fieldworkers have the training to simultaneously listen, emphasise, synthesize information, and manage expectations during the data collection.
- Be strategic in sharing results by using analytical lenses that meet the target audience's needs, selecting most relevant data and communicating with a focus on solutions.

#### Measuring community resilience alone does not inherently generate a tangible improvement in flood resilience:

- Couple data collection activities with early resilience-building action in the community to ensure credibility and trust with the local population, especially where there is existing survey fatigue.
- Consider more agile resilience measurement processes where community needs are already well-understood.
- Ensure the program timeline is designed with an appropriate balance between resilience measurement and resilience action.

Not everyone has the same needs, opinions, or even manner of expressing themselves. Sometimes you might talk to someone that seems angry, but they're just showing that they were frustrated at the time of the flood ... so you do have to have empathy to work with people in the field.

Mina, Disaster Management Assistant, Red Cross of Montenegro





IMPACT



### Individuals and families integrate flood resilience actions into their day-to-day lives as a result of knowledge transfer through awareness campaigns and trainings.

In general, the role of the Red Cross of Montenegro in supporting disaster response action throughout the country has given the organisation unique insight into the ways in which local populations are not adequately prepared for floods and other crises. The application of the FRMC further highlighted this gap, indicating that there is a widespread expectation and dependency on external support services, that are not always able to immediately support the entire local population the case of large disasters.

In its efforts to foster flood resilience within communities around the Skadar Lake, the Red Cross of Montenegro implemented **community education activities** continuously throughout the life of the program to raise awareness and strengthen skills related to preventative actions that can be taken by individuals and families to reduce the impact of floods. These efforts are manifested through First Aid training sessions that have been widely conducted, preparing individuals with vital lifesaving techniques. Such training is instrumental in developing a robust, first-response framework within communities, enabling swift and effective action in the aftermath of flooding incidents and other disasters. First aid activities can play a crucial role in the framework of Early Warning, Early Action (EWEA) initiatives by providing immediate, lifesaving care and helping to prepare communities for emergencies. Furthermore, this traditional Red Cross approach provided an entry point for the program to develop trust with local families and individuals. Community-based education on disaster risk reduction and evacuation simulations helped to increase understanding of risk and knowledge around tangible actions before, during and after floods.



The proportion of community population that has taken first aid training increased.

As well as being able to lead flood resilience from within the community, local individuals with an enhanced understanding of disaster risk reduction and flood resilience, have the potential to advocate for their needs with the local government. Finally, the impact of this capacity building not only strengthened human capital but by bringing people together for a common goal in training contexts where dialogue and cohesion are fostered, the social capital has also grown.



### Prioritising youth

Children and youth were enthusiastic participants in the flood resilience work led by the Red Cross of Montenegro. In the municipality of Cetinje, for example, school-based programs have enlightened students on emergency protocols, understanding of risk and First Aid. These sessions not only impart crucial emergency response skills but also ingrain a mindset of preparedness and resilience among the youth. Furthermore, the distribution of First Aid kits, emergency backpacks and risk awareness materials amplify these capacities to households, as well as schools and workplaces. Ensuring that first aid kits are readily available and accessible in vulnerable areas as part of early action measures can help in promptly addressing injuries during a crisis.

By integrating these educational programs into the societal mainstream, from the municipal level in Cetinje to the broader national context, the Red Cross ensures a pervasive culture of disaster readiness that bolsters the overall flood resilience of the nation.

#### Raising awareness

In the framework of bolstering flood resilience in Montenegro, a cornerstone of the Red Cross's efforts has been the emphasis on community education and awareness. A number of **knowledge products** were created including the Montenegro Briefing and flyers on First Aid, hygiene and health promotion and the contents of an emergency go-bag. Furthermore, **key messages on flood preparedness** were adapted and translated from the Public Awareness Public Education (PAPE) E-Library.

This content was shared with the community members and local authorities but also to national stakeholders and wider audiences via social media. Online media included blogs highlighting the program's interventions, a human impact story in video form and press releases for relevant occasions such as International DRR Day.

After the different workshops and trainings conducted, we saw that people's general knowledge on first aid was much higher and this was something that was very satisfying to see.

> Kristina, DM Assistant, Red Cross of Montenegro



LEARN MORE

PILLAR 2



### Communities and local authorities prioritise environmental management and flood protection infrastructure for enhanced flood resilience.

In Montenegro, community needs and priorities related to flood resilience, as well as the corresponding solutions, are clearly identified in Local Flood Protection Plans developed by municipal authorities. Often, the key obstacle to undertaking flood protection infrastructure projects at the local level is securing sufficient funding.

In partnership with the Zeta Municipality (previously the Municipality withing the Capital City of Golubovci), the Red Cross of Montenegro implemented three flood protection infrastructure micro projects, including the **repair of the flood protection wall** in Ponari, the **cleaning of the canal** in Kurilo and Bistrice, and the establishment of **green islands for**  waste management in Gostilj and Berislavci. The support of the local authorities was provided in the form of direct financial contributions and technical assistance. For example, the Zeta Municipality set up supervisory bodies for risk assessment and quality control, managed administrative processesand conducted environmental risk assessments.

This approach provided a strong basis for collaboration, highlighting that multiple sources of funding can be combined to make a greater impact than would be possible separately. Furthermore, this model enhanced sustainability as the local authorities are committed to the monitoring and maintenance of these infrastructure projects into the future.



### Flood protection wall

The rehabilitation of the flood protection wall in the Ponari community is a notable intervention. For decades, a wall protected the Ponari community from the harmful impacts of flooding from the Moraca River, especially with regards to livelihoods and natural resources. When the wall was damaged in 2010 as a result of unprecedented flooding, the community was left unprotected. Competing priorities and a lack of funding meant the urgent repair of the wall was overlooked despite being identified by the municipality in the Local Flood Protection Plan. After this resilience gap was further highlighted through the FRMC baseline process, the Red Cross of Montenegro proposed a **collaboration** with the local authorities to co-fund and coimplement the necessary repairs.

Together, the Municipality of Zeta and the Red Cross of Montenegro led the repair and enhancement of 380m of the flood wall, protecting lives, livelihoods, cultural sites (such as the church and cemetery), and physical assets in Ponari, as well as the neighbouring community of Zabljak Crnojevica, even in the face of more extreme climate events in the future.

66

I am satisfied that the flood protection wall was finally repaired, especially that it has been made higher in several places because this will significantly protect the community from future flooding.

Mujo Kavaric, community member, Ponari

### Waste management infrastructure

The program continued to collaborate with local authorities to increase community resilience through flood protection infrastructure focused on effective waste management.

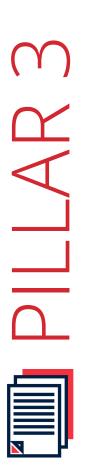
In the communities of Kurilo and Bistrice, the canal cleaning initiative played a critical role in **ensuring unobstructed waterways that help to prevent overflow and subsequent flood damage**. Large vegetation, debris and waste were cleared from the entire 2km of the canal, while vegetation along the banks of the canal was left untouched to ensure it continues to stabilize the soil along the canal, prevent erosion and provide benefits to local biodiversity.

In the communities of Gostilj and Berislavci, the development of green islands combined ecological conservation with flood mitigation. Waste management stations were built with containers allowing community members to dispose of different types of waste in the correct way, including for recycling. Supporting this local service ensured waste is not concentrated in public places, canals, or rivers where it can worsen flooding due to obstructions to drainage systems and lead to health impacts caused by contaminated flood water.

> LEARN MORE

> > . . . . . . . . . . . . . . . .







MPACT

# National policies prioritise community needs, priorities, and capacities in relation to flood resilience.

The Red Cross of Montenegro has engaged in strategic national and regional advocacy activities, which have served to fortify the framework of flood resilience significantly. Nationally, The Red Cross of Montenegro is an active member of different committees, working groups and bodies responsible for the development and amendment of local and national plans, strategies, policies, and laws. As an auxiliary to government and the most significant humanitarian actor in Montenegro, the Red Cross is in a strong position to advocate for community needs and priorities. Furthermore, the Red Cross of Montenegro forms part of the national disaster risk reduction network, and therefore the activities and key

changes implemented represent a key part of the overall resilience agenda in the country.

On a regional scale, the Red Cross of Montenegro participates in numerous regional events and workshops that **facilitate knowledge exchange and consolidate collaborative ties**. As a result, the profile and priority of flood resilience measures both within Montenegro and in the wider Balkan region has been elevated.

The impact of these activities extends beyond immediate program outcomes by **influencing long-term policy decisions and resource allocation** for disaster risk management across the national and regional spectrum.

The Red Cross of Montenegro contributed to the National Disaster Risk Assessment and Risk Management Capacity Assessment, the first of this kind of policy to be developed in Montenegro.



### ► National-level strategies

Best practice and community voices from the flood resilience program contributed to the development of key policies including the National Disaster Risk Assessment and the Risk Management Capacity Assessment. The Red Cross of Montenegro formed part of an exchange of knowledge and practices with experts from various sectors, including government, NGOs, and academia, allowing the integration of FRMC learnings into national policy. These policies are crucial in identifying the country's priority risks and understanding capabilities and gaps in disaster risk management, and consequently providing a roadmap for future improvements.

The Red Cross of Montenegro effectively interlaced the threads of community-level initiatives with the fabric of national and regional strategies. Such collaborative work not only advocated for robust flood resilience planning but also served as a beacon, drawing attention to the urgency of implementing comprehensive disaster risk assessments and actions.

LEARN

MORE



#### Sharing experiences in the region

The Red Cross of Montenegro also shared key insights from the flood resilience program with broader networks, including regionally. Within the Red Cross movement, the program has continuously participated in knowledge exchanges sharing experiences and lessons learned.

In 2022, the Red Cross of Montenegro presented at an **international conference titled 'Improving the rescue and protection system**' that brought together diverse representatives, including local and national authorities and civil society organisations, from Montenegro, Albania, Croatia, Bosnia and Herzegovina, the Czech Republic and Italy. They shared best practices and vital experiences on the topic of improving rescue and protection systems, thereby elevating the discourse on cross-border and international cooperation. This regional exchange underlined the significance of collaborative efforts and underscored the Red Cross's role in promoting innovative flood resilience measures.

In 2024, Montenegro will host the **European Forum for Disaster Risk Reduction** (EF-DRR) and the Red Cross of Montenegro has been invited to support and participate in the event, providing the opportunity to share lessons learned from the Alliance.

# INSTITUTIONAL LEARNING

Although we implemented different methodologies and learned new things, this program was perfectly aligned with our strategies and plans internal to the Red Cross of Montenegro, as well as with local community plans.

Jelena Dubak, Secretary General, Red Cross of Montenegro

The internal impact of the Alliance on the Red Cross of Montenegro is multifaceted, indicating a stronger, more adaptive, and influential Red Cross that is not only a key player in Montenegro's DRR framework but also a model for community resilience building within the international Red Cross movement.

As a result of this program, the Red Cross network in Montenegro was enhanced through the founding of a **new local Red Cross branch** in the Zeta Municipality and the **upskilling of volunteers** in methodologies related to resilience. Through their engagement and leadership in the program's activities, the local Red Cross branch is well positioned, recognised, and has a strong foundation of collaboration with the municipal authorities that can be deepened and leveraged to continue to build local flood resilience in the region in the future.

**Ways of working** have evolved alongside the program, broadening the capacity and reach of the Red Cross of Montenegro in the area of

flood resilience and beyond. Despite challenges, the **resilience measurement** tool was useful in providing local evidence that was effectively leveraged to secure buy-in from key stakeholders.

The program pioneered a **collaborative approach of working together with local authorities** to strengthen local flood protection infrastructure, particularly through alignment with existing plans and priorities. The collaboration with the Zeta Municipality demonstrated a successful model of publicprivate partnership that underscores the organisation's capacity to leverage external funding and resources effectively for the ultimate goal of supporting and strengthening community flood resilience. This model was shown to be effective in piloting interventions and prompting further action and responsibility from local authorities and communities.

The implementation of these projects was preceded by excellent cooperation between our administration and the Red Cross of Montenegro.

Mihailo Asanović, Mayor of the Municipality of Zeta

The program enabled us to strengthen the organisation, to increase the number of trained volunteers, strengthen the organisation both for the activities which are in the mandate of the Red Cross but also those activities specific to the program.

Goran Petrušić, Head of Logistics and Disaster preparedness and response dept., Red Cross of Montenegro



The approach that the Red Cross of Montenegro took by aligning program activities and initiatives with existing policies, strategies and laws proved to be effective. This was a key enabling factor for the successful collaboration with local stakeholders that resulted in significant improvements to community resilience.

Nataša Uskoković, International Relations Advisor, Red Cross of Montenegro

The Red Cross of Montenegro continues to **strengthen its role and contribution to national policy**. The flood resilience program supported these broader advocacy efforts by providing evidence of successful, communityled interventions that strengthened the visibility, credibility, and trust in the Red Cross locally and nationally, extending the institution's expertise to flood preparedness and resilience. This, in turn, reinforced the Red Cross of Montenegro's position as a critical stakeholder in disaster risk reduction (DRR), with the potential to shape policy based on ground realities and community feedback.

The Red Cross of Montenegro's ability to **navigate external constraints**, including the

Covid-19 pandemic and the complex political and administrative landscape, and to maintain program continuity to its robust internal mechanisms and perseverance. The strong foundations set by the program, and by many years of presence in community and collaboration with stakeholders, as well as constant adherence to the Fundamental Principles, was key to ensuring obstacles and delays could be overcome.

The actions we carried out in community helped to raise the visibility of the Red Cross at the local level and expanded the public perception of the possibilities of what the Red Cross can do.

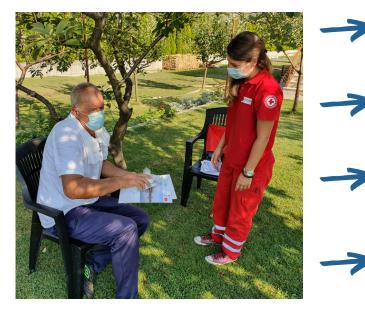
> Jelena Dubak, Secretary General, Red Cross of Montenegro

# RECOMMENDATIONS

The successful development of the Flood Resilience Program in Montenegro over the last 5 years has marked a pivotal improvement in community perception of risk and local capacity to improve disaster preparedness and response. However, as climate risks continue to grow it is important that our approaches remain dynamic and innovative; leveraging the lessons learned from previous experiences.



Ensure people are at the core of resilience-building actions.



Understand barriers to community engagement, such as survey fatigue.

Build trust and credibility by undertaking early activities that provide tangible benefit to the community.

Consider existing trust and past cooperation when selecting the target vulnerable communities.

Ensure the program timeline is designed with an appropriate balance between resilience measurement and resilience action.



Understand and communicate how the program's work contributes to the bigger picture.



Participate in large-scale awareness-raising campaigns to increase program visibility and to share key messages with a broader audience.



Seek systemic change by building resilience in different ways and at different levels, integrating individuals, families, communities, local leaders, and national stakeholders.



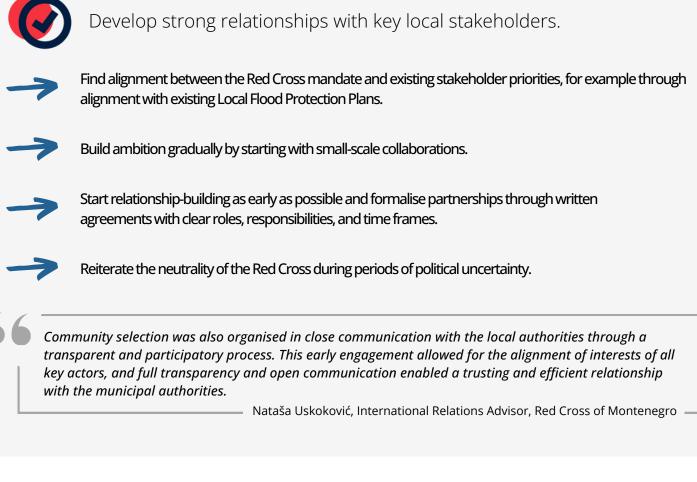
Collaborate with neighbouring countries for transboundary water management and flood resilience initiatives and share experiences and best practice regionally.



Invest in knowledge management to position the work within the broader national agenda.

The program strategically targeted flood-prone communities where local authorities had already developed local flood protection plans. This approach ensured that the proposed interventions met the objectives of both the program and the local governmental plans resulting in strong buy-in from local partners who recognised the opportunity for mutual interest and shared benefits.

Goran Petrušić, Red Cross of Montenegro





Leverage organisational strengths for scaling up and sustainability.



Utilise First Aid training, simulations and awareness raising activities as entry points to engage community and set a foundation for resilience building actions.



Prioritise the training of Red Cross staff and volunteers to empower future action on climate resilience.



Leverage the position of the Red Cross in national dialogues and policymaking to ensure local voices are heard.



# APPENDIX 1

# REFERENCE LIST

Ostojić M, Ćipranić I, Jevrić M, Sekulić G, Medojević A. Flood hazard assessment in

1. Montenegro through the application of two-dimensional hydraulic modelling. IOP Conf Ser: Mater Sci Eng. 2023 Jun 1;1283(1):012008.

World Bank Group. Disaster risk profiles - Montenegro (English). Accessed from
 <u>http://documents.worldbank.org/curated/en/283041493722051753/Disaster-risk-profiles-Montenegro</u>

Radulovic M, Radulovic M, Stevanovic Z, Sekulic G, Radulovic V, Buric M, et al. Hydrogeology

3. of the Skadar Lake basin (Southeast Dinarides) with an assessment of considerable subterranean inflow. Environ Earth Sci. 2015 Jul;74(1):71–82.

# APPENDIX 2

# KEY RESOURCES





Review the following key resources to learn more about the experiences and lessons learned from the Flood Resilience Program in Montenegro.

#### About the Flood Resilience Program

- Country Briefing Montenegro (<u>English</u>, <u>Montenegrin</u>)
- Where we work: Montenegro (English)
- DRR Practitioner profile: Red Cross of Montenegro (<u>English</u>)
- International DRR Day Press Release
  (<u>Montenegrin</u>)

#### Measuring resilience

- Flood Resilience Measurement for Communities (FRMC)
- FRMC Inviting Others (Montenegrin)
- FRMC Glossary (Montenegrin)

#### Pillar of Change 1: *Individuals and families integrate flood resilience awareness and actions into their day-to-day lives.*

- Flyer Hygiene Promotion during Floods (<u>Montenegrin</u>)
- Flyer First Aid (Montenegrin)
- Case Study from Montenegro in "Red Alert: Managing Disaster Risks in Europe" (<u>English</u>)
- Flood Resilience and DRR Messages for Social Media Campaign (<u>Montenegrin</u>)
- First Aid Brochure for Kids (Montenegrin)
- Contents of Emergency bag flyer (<u>Montenegrin</u>)
- Checklist for floods flyer (Montenegrin)

#### Pillar of change 2: *Communities and local* authorities prioritise environmental management and flood protection infrastructure.

- Video: Mujo's story (English)
- Better together: Working with local partners to build flood resilient infrastructure in Montenegro (English, Montenegrin)
- Working with local partners and nature for flood resilience (English, Montenegrin)
- Waste management flyer in Montenegro (<u>Montenegrin</u>)

#### Pillar of change 3: *National policy prioritises* community needs, priorities, and capacities in relation to flood resilience.

- Disaster risk reduction strategy with a dynamic plan of activities for the implementation of the strategy for the period 2018 – 2023
- Montenegro's revision of the National DRR strategy strengthened through a UNDRR expert-reviewed assessment exercise
- Red Cross of Montenegro calls on all humanitarian organisations to sign the Climate and Environment Charter





