

EXPLORING THE
LINKS BETWEEN
MIGRATION, ENVIRONMENT
AND CLIMATE CHANGE IN
BOSNIA AND
HERZEGOVINA





Executive Summary

This Paper intends to contribute to the discussion on migration, environment, and climate change, which is a topic that is quickly becoming more and more urgent. Bosnia and Herzegovina (BiH), in line with global trends, is experiencing the adverse effects of environmental degradation and climate change, which are already leading to migration and displacement. Furthermore, as climate change effects increase globally, displacement and economic hardship elsewhere will likely spill over into the region and BiH itself. This is already visible on a small scale, as five percent of surveyed migrants and asylum-seekers traveling through the Western Balkans cite environmental changes as the main reason for leaving their countries of origin. BiH, situated along the Eastern Mediterranean Route, is expected to continue to face important migration management challenges as climate-related displacement crises affect other areas of the globe. At the local level, the impact of climate change in BiH can already be seen in, for example, extreme weather events, such as floods and droughts, which are becoming more frequent. Furthermore, environmental degradation and climate change tend to disproportionately impact those already vulnerable due to poverty, unemployment, and social exclusion. This makes it more difficult for them to adapt to the changes and increases their likelihood of being forced to migrate or become displaced.

This paper looks at the current state of academic knowledge of climate change and environmental degradation in BiH. Current climate models suggest that temperatures will increase on average by 1°C to 6°C, with extreme events such as droughts and floods becoming more frequent and unpredictable. These changes will have significant impacts on, among other things, health, biodiversity, critical economic sectors such as agriculture and forestry, and water resources. The impact on communities and their mobility-related coping strategies is yet to be fully explored, but there is evidence that environmental degradation has already been a factor in the emigration of people from BiH. Understanding the nexus between migration, environment, and climate change is critical to developing evidence-based strategies to address the issue.



Figure 1 – The Drina river, the second longest river in BiH and a major source of hydroelectric energy, water, ecological services and other resources, has recently come into the publics eye due to the heavy pollution. In 2014, the Drina was a major source of flooding in the North of the country. © Branevgd, "Mehmet pasa bridge boat", 21 June 2011.



The paper looks at the susceptibility of BiH to wildfires, droughts, floods, water pollution, land degradation, and air pollution, documenting how these risks are interlinked, and exploring their (potential) impact on migration and displacement. The country has experienced a recent increase in wildfires, which are expected to become more severe and frequent due to climate change. In 2022, one forest fire in Blidinje caused damages of over one million Bosnian marks (BAM), and increasing wildfire risks may lead to more cases of displacement in the future. Droughts are also a significant challenge in BiH, with high temperatures and heat stress impacting agriculture, especially in the south of the country. The severe drought of 2012 caused losses in agricultural production of about BAM 1.65 billion after reducing grain and vegetable yields by about 70 percent. At the same time, floods are also becoming more frequent and intense in some parts of the country. In 2014, BiH faced the most severe flooding in over a century, with one million people negatively affected and 40,000 displaced. We use this example to show how vulnerable groups, such as low-income households and the Roma community, can be disproportionately affected. Water and land pollution are also a significant concern in BiH, with these two types of pollution working together to negatively affect livelihoods, reduce agricultural, fishery, touristic, and recreational uses of water and land, and threaten both the ecosystem and human health, as well as economic development. Finally, one of the most visible forms of pollution in BiH – air pollution, is also covered as one of the most significant environmental causes of health issues, and how air pollution has been confirmed as a moderate, yet measurable, factor in the emigration of certain categories of BiH citizens.

All the above environmental and climate-related challenges may lead to both temporary and long-term displacement events in BiH. In the short term, wildfires, floods, and droughts may cause temporary displacement of people, while long-term climate changes may also drive more permanent migration. As such, the paper discusses mobility as a strategy to adapt to climate change and the impacts of environmental degradation. For example, the engagement of expert diaspora members and the potential of circular migration for innovation and resilience.

As part of its global mandate and commitment to the Sustainable Development Goals¹ and the Global Compact for Migration², IOM is committed to working with BiH stakeholders to address climate and environmental challenges, notably through evidence-based policy and frameworks that integrate disaster risk reduction, climate change adaptation, environmental management, and human mobility. In line with this mandate and our commitments, IOM in Bosnia and Herzegovina prepared this brief analysis of migration, environment, and climate change as a way to promote discussion and debate on this increasingly urgent topic. We hope you find it useful and thought-provoking.

¹ Especially goals <u>11: Sustainable Cities and Communities</u>; <u>12: Responsible Consumption and Production</u>; <u>13: Climate Action</u>; <u>14: Life Below Water</u>; <u>15: Life on Land</u>.

² Particularly Objective 2, which is to minimize the adverse drivers and structural factors that compel people to leave their country of origin.

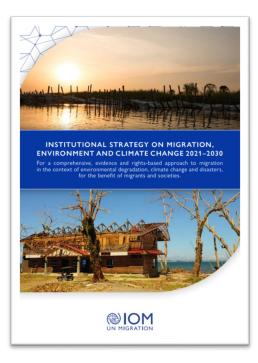


Introduction

This document provides a brief overview of the *migration*, *environment*, *and climate change* information available in the context of Bosnia and Herzegovina (BiH), as a necessary step to guide policy and programming in this area.

The analysis builds on two major categories of risks: short-term migration and displacement risks, and long-term migration and displacement risks, while looking at the major forms of climate and environmental issues. It discusses cross-cutting themes relevant to migration, environment and climate change problematics and offers elements of a response to emerging environmental and displacement challenges.

This paper contributes to IOM's country and global strategic priorities in the field of migration, environment and climate change³, as it aims to identify and summarize current knowledge in this area, while also identifying areas for future engagement. Moreover, it contributes to and promotes a wider debate and whole-of-society engagement, with both local and global perspectives on problematics that will affect all societies in the decades to come.



In 2021, IOM launched the Institutional Strategy on MECC 2021 - 2030, as the primary guiding document in this field.

Climate Change and Environmental Degradation in Bosnia and Herzegovina

Climate change is a serious threat to the safety and well-being of people in BiH that will likely have a major impact on migration trends and patterns in the county over the coming decades. **BiH is ranked among the most disaster-vulnerable countries in Europe**⁴ and is considered highly susceptible to various hazards due to several vulnerability factors, including climate change and natural hazards such as earthquakes, floods, wildfires, and droughts. BiH is rated highly at risk on multidimensional risk assessments, as 91 out of 145 municipalities are considered to be at very significant risk from floods and landslides, while 27 are at high risk, meaning that over 80% of all municipalities are at risk⁵.

³ The 2022-2025 Strategy of IOM in Bosnia and Herzegovina recognizes Migration, Environment, and Climate Change (MECC) and environmental disasters risk reduction as strategic priorities, in line with the IOM Institutional Strategy on Migration Environment and Climate Change 2021 - 2030. The Strategy for BiH sets objectives to "analyze and address environmental drivers that compel people to move, accelerate climate action, reduce risk, build resilience, and enhance adaptive capacities."

⁴ Bündnis Entwicklung Hilft (2021), World Risk Report 2021.

⁵ Aleksandar Mandic, et al. (2018), <u>Disaster Response Assessment and Road Map for Bosnia and Herzegovina</u>.



Reports on climate change scenarios for BiH indicate that the changes ahead may be difficult to predict and address. An analysis of BiH data for the period 1901-2018 shows a trend of a gradual but continuous increase in mean annual air temperature, with "all of the years in the period 2000–2015, except 2005, [being] among the ten hottest since the beginning of meteorological measurements".⁶

"Although there are significant regional differences in expected climatic conditions, the predicted impact in [BiH] in the 21st century will be reflected in an increase in air temperature, droughts during the summer months, as well as the occurrence of extreme events in terms of quantity, distribution, and intensity of the precipitation."

Based on global and regional climate models and using four different scenarios of future climate change, temperatures are expected to increase by 1°C to 6°C. In the most optimistic scenario, the report finds a chance of "stabilization". However, in all scenarios, daily maximum temperature is likely to rise faster compared to the average and minimum temperature, which can have significant health impacts. ⁸ These scenarios also show more unpredictable rain patterns, which are expected to lead to more frequent periods of drought, or rapid intensification of rainfall and increased flooding risks.

"[...] all the analysed scenarios show that there is a greater chance of summer rainfall loss [up to] -30 %, which would certainly represent a significant pressure on the living world, but also on some socio-economic sectors, such as agriculture, forestry and water resources."

Environmental degradation and climate change are closely interlinked.¹⁰ More frequent droughts and floods would lead to soil degradation, resulting in biodiversity and habitat loss. Some of the measures taken to mitigate these effects, such as over-fertilization and pesticide use, can in turn contribute to accelerating environmental degradation.¹¹

Advanced climate scenarios and understanding of the impact of climate change help anticipate risks and identify mitigation measures. However, the impact these changes will have on communities and people's mobility strategies is yet to be fully grasped. BiH communities have been impacted by various environmental and social phenomena in the

⁶ Hamid Čustović, et al. (2020), Sustainable Land Management – Approaches and practices in Bosnia and Herzegovina.

⁷ Hamid Čustović, et al. (2020), <u>Sustainable Land Management – Approaches and practices in Bosnia and Herzegovina</u>.

⁸ USAID (2016), *Climate Risk Profile: Bosnia and Herzegovina*.

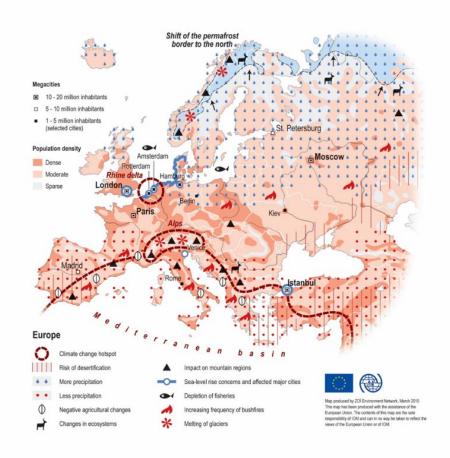
⁹ Green Climate Fund, UNDP (2019), <u>Updated existing climate change scenarios for Bosnia and Herzegovina and Developed climate change scenarios RCP 2.6, RCP 4.5, RCP 6.0 and RCP8.5 according to the Intergovernmental Panel on Climate Change – Fifth Report.</u>

¹⁰ Ibid.

¹¹ Prof. Dr Hamid Čustović and Dr Melisa Ljuša with participation of LDN working group (2018), <u>Final report of the LDN Target</u> Setting Programme.



past, and the country is heavily impacted by emigration.¹² Environmental degradation represent one of the multiple factors leading people to move to other parts of the country, or to other countries. As such, understanding the nexus between migration, environment and climate change has become critical to leveraging evidence-based strategies.



Map of Likely Climate Change Effects in Europe by 2100, showing Bosnia and Herzegovina as a 'climate change hotspot', with likely bushfires, high impact on mountain ecosystems, and other key risks

Multidimensional risks in the short and long-terms

Wildfires

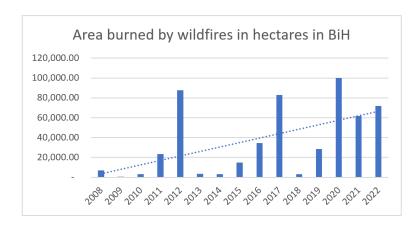
Recent data on areas under fire in BiH indicated a recent rise in the trend from 2008 to 2022, as can be seen in the chart showing a linear trendline overlaid. 13 Climate scenarios for BiH

¹² For example, <u>EUROSTAT data</u> shows that some 16,000 BiH citizens received a first permit in the EU in 2013, this number increased to some 56,500 in 2019 before the pandemic. While the numbers decreased in 2020 and 2021, they remained more than twice higher than the 2013 baseline (35,258 and 33,209 respectively).

¹³ Bosnia and Herzegovina: wildfire area burned 2022 | Statista



indicate that many parts of the country will experience both higher temperatures and reduced rainfall in the summer months. As such, more severe and frequent wildfires are expected.



Thus far, shrub and forest fires in BiH have caused limited, and mostly punctual/temporary displacement of people. For example, in 2015, several villages were under threat of wildfires, and while the villages were undamaged, many agricultural and forest resources were ¹⁴. In 2022, just one forest fire in Blidinje was estimated to have caused damages of over one million Bosnian marks¹⁵. However, with increasing wildfire risks, due to climate change, it is likely that we will see more cases of displacement. In the longer term, people may start avoiding areas with likely wildfire risks, hence leading to long-term migration pattern changes.

Droughts

In recent years, drought has caused some of the most significant economic, environmental and social costs in BiH. High daily temperatures and heat stress are some of the biggest problems in agriculture, especially in the south of the country, i.e., broadly in Herzegovina, with major impact on fruit, vegetable and wine production. For example, in 2012 BiH "experienced a prolonged period of severe drought, causing losses in agricultural production of about BAM 1.65 billion, grain and vegetable yields were reduced by about 70%, and energy production was reduced by about 25%.".¹⁶

Climate change impacts on precipitation and air temperature are expected to negatively affect the availability of freshwater resources, notably because the driest months coincide with the growing season. A decrease in snowfall could also impact watercourses in the spring and contribute to a general degradation of water quality during the dry season.

¹⁴ Al Jazeera (2015), *Wildfires threaten villages across the Balkans*.

¹⁵ FENA (2022), <u>Šteta od šumskog požara na Blidinju procijenjena na više od milion KM</u>.

¹⁶ Government of Bosnia and Herzegovina (2021), <u>Nationally Determined Contribution of Bosnia and Herzegovina (NDC) for the Period 2020-2030</u>.



Floods

More frequent precipitation of higher intensity in some parts of the year, combined with increased and more recurrent risks of flooding, and decreased water quality and availability, are important drivers of movements for rural populations, and also causes of rapid displacements, even in urban areas.

In May 2014, BiH faced the most severe flooding since the systematic recording of meteorological and hydrological processes began in 1892.¹⁷ During the floods, an estimated one million people were negatively affected, including 40,000 who were displaced. Areas with low and middle-income households were particularly hard hit, with certain vulnerable groups such as the Roma community being disproportionately affected.¹⁸ Following these floods, an assessment of flood and landslide risks found that in the 28 most at-risk municipalities in BiH, 284,000 people live in areas with a very high risk of flooding, while 260,000 live in areas with a very high risk of landslides. The potential total damages were estimated at up to 7.8 billion BAM.¹⁹ In 2021, flash floods caused damages and evacuations in 18 municipalities, affecting some 250,000 people²⁰, while in December 2022 floods damaged infrastructure for some 300 households²¹. Based on the climate change scenarios discussed above, flood events are likely to become more frequent in the future; hence, it is likely that BiH will experience more frequent displacement events as well.²²

Water pollution

Water resources are also polluted by the direct disposal of solid waste into rivers. Furthermore, wastewater treatment is severely lacking and untreated flows are mostly discharged directly to surface waters. In 2016, sampling of six rivers and streams in the Sarajevo Canton found all were polluted by wastewater, containing pathogenic bacteria, and making them unsuitable for consumption or recreational use. The National Environmental Action Plan identifies inadequate protection of springs, inadequate disposal of municipal and industrial wastewaters and inadequate flood protection as some of the most pressing priorities in BiH.²³

Water pollution leads to decreased agricultural, fishery, touristic and recreational uses of that water, which negatively affects livelihoods and quality of life, and thus can be a push factor

¹⁷ Hydro-Engineering Institute Sarajevo – HIES (2015), *Floods and Landslides Risk Assessment for the Housing Sector in Bosnia and Herzegovina*.

¹⁸ Roma people represent 0.36% of the BiH population according to the 2013 census but represented 1.5% of those displaced during the 2014 floods. As such they were four times more likely to be affected by the floods than the general population. See Bosnia and Herzegovina Floods, Recovery Needs Assessment (2014).

¹⁹ Hydro-Engineering Institute Sarajevo – HIES (2015), <u>Floods and Landslides Risk Assessment for the Housing Sector in Bosnia and Herzegovina</u>.

²⁰ ReliefWeb and OCHA (2021), <u>Bosnia and Herzegovina: Floods - Nov 2021</u>.

²¹ ReliefWeb and OCHA (2021), *Bosnia and Herzegovina: Floods - Dec 2022*.

²² Green Climate Fund, UNDP (2019), <u>Updated existing climate change scenarios for Bosnia and Herzegovina and Developed climate change scenarios RCP 2.6, RCP 4.5, RCP 6.0 and RCP8.5 according to the Intergovernmental Panel on Climate Change – Fifth Report.</u>

²³ Ibid.



reducing in-migration while increasing out-migration. Wastewater treatment plants are rare, and mostly exist in towns, but not in cities, while wastewaters from other settlements are directly released into open water streams²⁴. Water pollution is most severe and visible during flood events. In 2021, one Neretva river hydroelectric dam, and another on the Drina river in 2022, accumulated tons of visible, floating household and industrial waste, leading to shocking images of "trash islands" and threatening electricity production²⁵. The above examples are all detrimental to economic development and human health, as pollution of rivers can lead to illness, reduce fish and wildlife populations, or threaten power supplies. These risks can have direct effects on people's willingness to move, but they can also lead to long-term underdevelopment and reduce incentives to stay.

Land degradation

Increasing maximum temperatures are one of the biggest challenges to land, as it leads to accelerated loss of soil moisture, loss of soil biodiversity, decreases in fertility, reduced crop yields, etc.²⁶ These phenomena may further pressure the rural population to seek better livelihoods in urban areas or other countries. According to a recent UN analysis led by UNEP and FAO, "climate change-induced land degradation has become extreme in BIH, as manifested through more frequent floods, drought and wildfires in recent decades."²⁷

BiH has limited agricultural land of good quality, with only 14.2% of agricultural land in the top three land quality grades. While the country is currently leading the region with regards to the amount of area that is increasing or stable in its land productivity, more than 6 per cent of the area is either in early decline or in decline, indicating the need to better protect soils.²⁸ **Migratory patterns are recognized as a cause and an effect of this process.** Urbanization, i.e., the use of land for housing, infrastructure, and industrial purposes are some of the major drivers of anthropogenic pressure in BiH. The land-use change from agricultural to building is constant, including on the most fertile land. **Abandonment of farms**, where the land is left bare and exposed to erosion, invasive species and other contaminants, contributes to further ecosystem loss and degradation. Meanwhile, illegal and uncontrolled timber extraction contributes to the degradation of forestland.²⁹ Erosion and high heat are made worse by climate change, making future predictions pessimistic.³⁰

Increased occurrence of floodwaters collecting and bringing substances onto farmlands, settlements, industrial plants, etc., contributes to land degradation and the introduction of harmful substances into soils. In BiH, the flood prone areas are also the most agriculturally used land, as valleys tend to be more fertile than highlands.

²⁴ Federal Ministry of Environment and Tourism (2010) - <u>State of The Environment in Federation of Bosnia and Herze-aovina.pdf</u>

²⁵ For visual documentation, see articles here and here.

²⁶ Hamid Čustović, et al. (2020), <u>Sustainable Land Management – Approaches and practices in Bosnia and Herzegovina</u>.

²⁷ United Nations BiH (2022), <u>Reversing land degradation neutrality with sustainable land management and sustainable forest management practices</u>

²⁸ FAO (2021), Overview of Land Degradation Neutrality (LDN) in Europe and Central Asia.

²⁹ Hamid Čustović, et al. (2020), <u>Sustainable Land Management – Approaches and practices in Bosnia and Herzegovina</u>.

³⁰ Ibid.



Air pollution

In many parts of BiH, air pollutants exceed levels deemed safe by the World Health Organization (WHO) on a regular basis. The country has the fifth-highest mortality rate associated with air pollution worldwide.³¹ Nine percent of the country's deaths are due to air pollution and an estimated 3,300 people die prematurely every year as a result of exposure to ambient PM2.5 air pollution.³² Air pollution is estimated to reduce the country's GDP by 21.5 percent through lost work and school days, and healthcare and fuel costs.³³

In 2021, IOM conducted a study among BiH professionals who emigrated to other countries, which concluded that air pollution is increasingly playing a role in people's decision-making regarding where to settle in BiH:

"Some of my friends left Sarajevo and went to live permanently in rural areas outside of the city, because they were looking for a healthier environment." ³⁴

However, relocation to less polluted areas is not always an option for families' depending on the urban environment for work:

"Both he and his wife had well-paying jobs, a family apartment and two cars. But their child had respiratory tract problems. The air pollution affected him very negatively. For this family, poor air quality in Sarajevo was the deciding factor in their decision to emigrate." ³⁵

In addition to incentivising people to leave polluted cities, evidence is now emerging that air pollution is becoming a major deterrent for migrants to move to polluted cities. Two recent studies show a strong correlation between clean air pollution and both prospective students' and migrant workers' avoidance of these cities. ^{36,37} Therefore, air pollution is not only leading people to leave polluted cities, but also stopping others from coming to them. Considering the social, cultural and economic importance of cities, and that they are the only communities in BiH that are actually increasing in population size³⁸, air pollution is a cornerstone issue in environmental protection.

³⁶ Shen, F.; Wang, Q.; Zou, J.; Yan, H.; Wang, B. (2023), <u>Air Pollution and Migration Decision of Migrants in Low-Carbon Society</u>. Int. J. Environ. Res. Public Health

³¹ The World Bank (2019), Air Pollution Management in Bosnia and Herzegovina.

³² Based on 2019 World Bank figures.

³³ Human Right Watch (2022), Bosnia and Herzegovina: Deadly Air Pollution Killing Thousands.

³⁴ IOM (2022), Emigration of Health and Information and Communication Technology Professionals from BiH.

³⁵ Ibid.

³⁷: Xu, C.; Wang, X. (2022), <u>Air Pollution and Migration Intention: Evidence from the Unified National Graduate Entrance Examination</u>. Int. J. Environ. Res. Public Health

³⁸ Klix.ba (2023), Report on demographic changes since the last census (BHS only).



Conclusion: Assessing the costs for the most vulnerable

In BiH, climate change impacts are likely to exacerbate underlying causes of vulnerability. Emerging evidence points to environmental degradation undermining the sense of wellbeing of communities and disproportionately affecting disadvantaged groups, who can be stranded in fragile areas or forced to relocate in ways that erode their adaptive capacities. In BiH, women, youth, the elderly, people with disabilities, ethnic minorities, and other disadvantaged groups are at higher risk of displacement and unvoluntary migration.

Deterioration of climate conditions can lead to significant health effects, primarily from rising temperatures, air pollution and flood risks. In BiH, the main cause of serious health impacts caused by extreme climate change is heat stroke.³⁹ Abnormally high temperatures are particularly dangerous for vulnerable groups such as the elderly, children and those suffering from cardiovascular problems. Additionally, as river flows are reduced, water-borne illnesses also represent a growing public health risk.⁴⁰ The country's health-care infrastructure and capacities are not ready to support adaptation to extreme weather events and monitoring and surveillance systems need to be improved to provide information on the associations between critical health hazards and climate.⁴¹

Climate change continues to push millions of people to move every year, which is expected to significantly impact transit countries such as BiH over the next decades.⁴² Based on data collected by the IOM in 2022, five per cent of the migrants and asylum-seekers travelling through and surveyed in the Western Balkans cite environmental changes are their main reason for **leaving their countries of origin**. ⁴³ Due to its situation along the Eastern Mediterranean Route, it is likely that the country will continue to face important migration management challenges as climate-related displacement crises continue to affect other areas of the globe.



Figure 2 - Forest fire in the Hercegovačko Neretvanski Kanton, near Jablanica in 2021. © Nedim Ćosić / GSS Jablanica

For many nationals of the WB, migration also represents a viable option to improve their life prospects. This is particularly true for women, youth and professionals in certain sectors. For instance, BiH women have historically been disproportionately affected by crises⁴⁴ and are

³⁹ Ministry of Foreign Trade and Economic Relations of BiH (2016). Report on GHG Emissions of BiH under the UNFCCC.

⁴⁰ Levy K, Smith SM, Carlton EJ. (2019), <u>Climate Change Impacts on Waterborne Diseases: Toward Designing Interventions.</u>

⁴¹ Skøien, J. et al. (2018), Assessment of the capacity for flood monitoring and early warning in Enlargement and Eastern/ Southern Neighbourhood countries of the European Union.

⁴² IOM (2022), Evidence Summary on Climate Change and the Future of Human Mobility

⁴³ IOM Flow Monitoring Survey 2022.

⁴⁴ IOM internal data on 2014 flood, and the UN Women Rapid Gender Assessment (of COVID-19) in BiH, as well as global trends (e.g. see: Why do humanitarian crises disproportionately affect women?).



increasingly prone to migrating out of BiH. ⁴⁵ Similarly, youth disenfranchisement and socioeconomic dissatisfaction are major issues in BiH, with youth being more susceptible to be being unemployed or underemployed ⁴⁶ and to report feeling they have no influence over politics and policy. ⁴⁷ As a results, youth account for almost half of the people leaving BiH in search of better opportunities. ⁴⁸ As climate and environmental factors pressure economies, the **trends towards emigration of women and youth are expected to increase.**

Today, it is estimated that over two million BiH nationals live abroad. In other countries, **mi-gration for work has shown to have considerable positive impacts on climate change adaptation** at the household level. Temporary and seasonal migration enables families staying behind to respond to the impacts of climatic shocks and stressors. Moreover, the BiH diaspora has tremendous human, technical and financial resources that could be harnessed to mitigate climate change and environmental degradation in BiH, while also creating job opportunities.

As BiH has committed to climate change adaption and a move towards reducing greenhouse emissions,⁴⁹ both the supply and demand for cooperation between the diaspora and local actors exist. However, without enabling conditions (e.g., awareness, incentives, inclusive planning, supportive policies, communication, capacity development, etc.), remittances spending on medium- and long-term climate change adaptation will likely remain sporadic.

Migration, environment and climate change is increasingly becoming a topic of discussion not only between civil society organizations and interest groups, but also among the public at large. This is evidenced by recent surveys conducted in the Western Balkans, which show that 32 per cent of BiH respondents see climate change as a "very serious problem" and 71 per cent as either "very or somewhat of a problem". ⁵⁰ Moreover, 39 per cent of BiH respondents state that they "would leave and work abroad". While there is no research on the direct correlation between the two questions, **it is clear that migration, environment and climate change are prominent issues debated in the BiH society**. The World Economic Forum risk survey of global leaders found that for BiH politicians, the top perceived risk was tied between *Human-made environmental damage* and *Prolonged economic stagnation*, two highly interlined risks. ⁵¹

As migration, environment and climate change are becoming more prominent topics of debate in BiH society, the local and internationals should seek to engage a multitude of different actors in this discussion, through inclusive planning and programming. The increasingly severe impacts of climate change in BiH will require proportionally greater cooperation among stakeholders to address the challenges ahead, especially focusing on vulnerabilities of disadvantaged groups who are at higher risk of displacement and involuntary migration.

⁴⁵ Ibid.

⁴⁶ World Bank, Vienna Institute for International Economic Studies (2018), Western Balkans Labor Market Trends 2018.

⁴⁷ Oxfam (2016), Youth and Inequality - Time to support youth as agents of their own future.

⁴⁸ Reuters (2021), <u>Bosnia losing many young people to emigration over poor education, work prospects</u>.

⁴⁹ For example, such commitments can be found in the <u>BiH Nationally Determined Contribution</u>.

⁵⁰ Regional Cooperation Council (2022), <u>Balkan Barometer 2022 - Public Opinion.</u>

⁵¹ World Economic Forum (2022), *Global Risks Report 2022, 17th Edition*.



GLOSSARY OF TERMS*

Climate change - A "change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to other natural climate variability that has been observed over comparable time periods".

Environmental degradation - "The reduction of the capacity of the environment to meet social and ecological objectives and needs. [...] Degradation of the environment can alter the frequency and intensity of natural hazards and increase the vulnerability of communities. The types of human-induced degradation are varied and include land misuse, soil erosion and loss, desertification, wildland fires, loss of biodiversity, deforestation, mangrove destruction, land, water and air pollution, climate change, sea level rise and ozone depletion".

Migration - "The movement of a person or a group of persons, either across an international border, or within a State. It is a population movement, encompassing any kind of movement of people, whatever its length, composition and causes; it includes migration of refugees, displaced persons, economic migrants, and persons moving for other purposes, including family reunification".

Internal migration - "A movement of people from one area of a country to another area of the same country for the purpose or with the effect of establishing a new residence. This type of migration may be temporary or permanent. Internal migrants move but remain within their country of origin ([such as in] rural to urban migration)".

International migration - "[A]n international migrant is [...] any person who changes his or her country of usual residence" (UN DESA, 1998).

<u>Long-term migrant</u>: "[A] person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence".

<u>Short-term migrant</u>: A person "who move[s] to a country other than that of [his or her] usual residence for a period of at least 3 months but less than a year (12 months) except in cases where the movement to that country is for purposes of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage".

Environmental migrant - "Environmental migrants are persons or groups of persons who, predominantly for reasons of sudden or progressive change in the environment that adversely affects their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad".

Environmentally displaced person - "Persons who are displaced within their country of habitual residence or who have crossed an international border and for whom environmental degradation, deterioration or destruction is a major cause of their displacement, although not necessarily the sole one".

12

^{*} This glossary is an excerpt of the more comprehensive Glossary of Terms on Migration, Environment and Climate Change, published by IOM Geneva, and which can be found here: <u>Migration, Environment and Climate Change: Evidence for Policy (MECLEP) GLOSSARY | IOM Publications Platform.</u>