



CLIMATE SECURITY SNAPSHOT THE BALKANS

A VOLUME OF
THE WORLD CLIMATE AND SECURITY REPORT 2022

A Product of the Expert Group of the
INTERNATIONAL MILITARY COUNCIL ON CLIMATE AND SECURITY

JULY 2022

THE CENTER FOR
CLIMATE AND
SECURITY

COUNCIL ON
STRATEGIC
RISKS



The Hague Centre
for Strategic Studies



THE CENTER FOR
CLIMATE AND
SECURITY

COUNCIL ON
STRATEGIC
RISKS



The Hague Centre
for Strategic Studies

This paper is part of a series of published reports that will collectively make up the World Climate and Security Report 2022, published by the Expert Group of The International Military Council on Climate and Security (IMCCS).

The IMCCS is a group of military leaders, security experts, and security institutions across the globe dedicated to anticipating, analyzing, and addressing the security risks of a changing climate. The IMCCS is co-led by:

- IMCCS Secretary General The Honorable Sherri Goodman Former Deputy Undersecretary of Defense (Environmental Security) US Department of Defense Senior Strategist, The Center for Climate and Security
- IMCCS Chair General Tom Middendorp (Ret) Former Chief of Defence of the Netherlands Senior Associate Fellow, Clingendael Institute

The IMCCS Expert Group consists of IMCCS leaders committed to driving analysis, policy and communications on climate and security, including through the development, publication and endorsement of the World Climate and Security Report, as well as other timely analysis driven by demand signals from the IMCCS.

The IMCCS Expert Group currently consists of representatives from four institutions:

- The Center for Climate and Security (CCS), an institute of the Council on Strategic Risks (CSR)
- The Planetary Security Initiative at the Netherlands Institute of International Relations (Clingendael)
- *The Hague Centre for Strategic Studies* (HCSS)
- The French Institute for International and Strategic Affairs (IRIS)

The IMCCS Expert Group thanks the Government of Luxembourg for its generous support.



This report should be cited as: "The World Climate and Security Report 2022: Climate Security Snapshot - The Balkans." Product of the Expert Group of the International Military Council on Climate and Security. Authors: Elsa Barron (CCS) and Hugo van Manen (HCSS). Edited by Erin Sikorsky and Francesco Femia. Published by the Center for Climate and Security, an institute of the Council on Strategic Risks. July 2022.

© 2022 The Council on Strategic Risks

Cover Photo: Wildfires burning along the coasts of Croatia and Montenegro at the height of tourist season, captured by the MODIS on the Aqua satellite on July 17, 2017. NASA.

CLIMATE SECURITY SNAPSHOT – THE BALKANS

BY ELSA BARRON (CCS) AND HUGO VAN MANEN (HCSS)

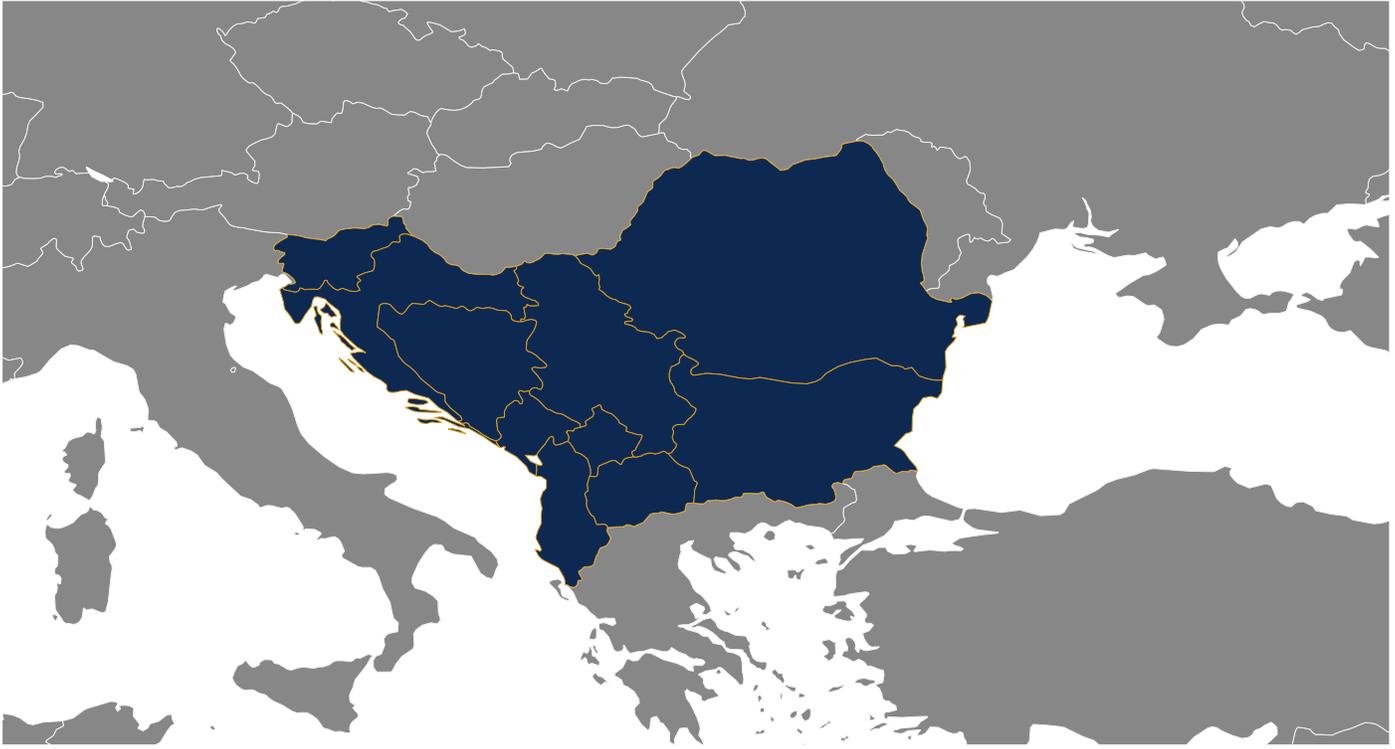
EXECUTIVE SUMMARY

This report represents findings from analysis of climate security risks in the Balkans using the Climate Security Risk Index (CSRI). Of the climate change hazards covered by the CSRI in the Balkans, an ethnically diverse geographic grouping of ten countries, droughts pose the largest threat to the region's stability and prosperity. Its relatively moderate resilience means that it is more prepared than a number of other vulnerable regions to manage internal climate risks, but it is not immune to those risks or their security implications.

Those climate risks have a diversity of security impacts. For example, climate change - by placing pressure on the region's resources - risks exacerbating existing ethnopolitical faultlines, opening the door to the potential resurgence of conflict and/or political instability in the process.

Climate impacts may also reverse progress on climate mitigation through renewable energy development, given the significance of hydropower as a domestic energy source in Balkan nations. Drought significantly reduces hydropower production and may spark increased reliance on polluting fossil fuels such as coal, oil, and gas – counter to European energy goals. Foreign actors willing to invest in these environmentally regressive projects, primarily Russia and China, have the opportunity to expand their influence in the region to the detriment of European interests.

Finally, climate change contributes to increased migration flows from the Middle East and Africa, through the region, and towards other parts of Europe, increasing the risk of anti-immigrant extremism and violence.



POPULATION SIZE	GDP	GREATEST RISK
49.4 Million	\$5.5 Trillion	Drought

DISASTER RISK SCORE

Average: 37.9 | Max: 51.1 (Albania) | Min: 22.0 (Kosovo)

COASTAL FLOODING	RIVERINE FLOODING	TROPICAL STORMS	LANDSLIDES	DROUGHTS	HEATWAVES	WILDFIRES
Highest risk: Albania	Highest risk: Albania	Highest risk: Albania	Highest risk: Romania	Highest risk: Albania	Highest risk: North Macedonia	Highest risk: Romania
Countries at risk: N/A	Countries at risk: N/A	Countries at risk: Albania	Countries at risk: N/A	Countries at risk: Albania	Countries at risk: N/A	Countries at risk: Romania

RESILIENCE

Average: 52.0 | Max: 67.6 (Slovenia) | Min: 36.5 (Kosovo)

CLIMATE SECURITY RISKS OVERVIEW

The Balkans consist of ten countries including Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Kosovo, Montenegro, North Macedonia, Romania, Serbia, and Slovenia. Over the past decade, the Balkans has experienced serious climate change impacts. The most notable disaster was the 2014 flooding catalyzed by Cyclone Tamara, affecting over 2 million people in Bosnia and Herzegovina, Croatia, and Serbia.¹ Three years later, the region experienced heatwaves and drought that impacted hydroelectric power production and agriculture.² These crises are coupled with the vulnerability of a post-conflict society following the violent breakup of the former Yugoslavia. The combination of climate impacts and conflict vulnerability make the Balkans an important region for climate security analysis.

European Union and NATO strategies are focused on increasing political and economic engagement in the Balkans.³ An understanding of climate security risks in the region is key to ensure that such engagement addresses existent and emerging challenges and contributes to the stability of the region and that of broader Europe. Here are four climate security risks to consider:

1. **Intensifying climate change impacts may heighten existing post-conflict tensions.** The Balkans face serious disaster risks, particularly from drought, heatwaves, and tropical storms. These disasters have the potential to devastate economies and livelihoods in the region, especially those rooted in agriculture. Additionally, climate disasters can spark irregular population movements and challenges for governance. Given the recent history of conflict in the region and existing ethnic, religious, and interstate tensions, additional climate stressors pose a threat to the security of the southern European region.
2. **Climate impacts in the Balkans threaten Europe's broader climate goals.** Balkan countries are far from achieving Europe's decarbonization goals and remain reliant on coal as a primary energy source.⁴ Climate impacts on alternative sources of energy such as hydropower may further deepen the region's dependence on fossil fuel use. As Europe strategizes how to further integrate the Western Balkans into the EU,⁵ these energy risks pose a threat to unity as they contradict Europe's international climate commitments.
3. **Without European investment in climate adaptation and mitigation, the Balkans are increasingly vulnerable to influence from outside actors.** Given the climate risks facing the Balkans and the existing adaptation gap when compared with the rest of Europe, there is growing discontent amongst Balkan nations with Europe's current investment in the region.⁶ This frustration may provide opportunities for outside investment and influence from actors such as Russia and China. For example, both China and Russia currently invest heavily in Serbia, with China investing in unsustainable energy projects such as coal-fired power plants.⁷ Given increasing criticism of Serbia's trade with Russia during the war in Ukraine, the nation may turn to closer ties with China, which, according to a 2020 poll, 40 percent of Serbians already mistakenly believe is their largest trading partner.⁸
4. **Climate-driven migration through the Balkans could be exploited to stoke right-wing extremism.** The Balkans is a significant movement corridor for migrants seeking to enter Europe. Over a six-month period at the height of the migrant crisis in 2015-2016, over a half million people migrated through the Western Balkans into other parts of Europe.⁹ As climate impacts accelerate population displacement, increasing migration flows could be used by far right extremists to stoke anti-immigrant sentiment and violence.¹⁰

Even in the face of these risks, addressing climate and environmental challenges in the region provides important opportunities for cooperation in the Balkans. The climate security discourse has developed a foundation for strong post-conflict environmental collaboration in the Balkans.¹¹ Environmental challenges have been strategically utilized as a platform for security sector collaboration in the region. As Balkans nations have become further removed from armed conflict, the environmental and climate security discourse has evolved to include issues extending beyond military to military collaboration. This has led to the elevation of human security, which the UN defines as “an approach to assist Member States in identifying and addressing widespread and cross-cutting challenges to the survival, livelihood and dignity of their people” by “strengthening the protection and empowerment of all people.”¹² Given the vulnerability of social and economic systems in the Balkans to climate shocks, it is critical to maintain a regional focus on environmental peacebuilding and climate security.¹³

METHODOLOGY

The figures presented within this snapshot are based on data derived from the Climate Security Risk Index (CSRI).¹⁴ The CSRI leverages 29 open-source datasets to provide a country-by-country estimate of the risks posed by seven natural hazard types; namely: coastal flooding, riverine flooding, tropical storms, landslides, droughts, heatwaves, and wildfires. Natural hazard-specific risk scores are based on a methodology which operationalizes the probability of each natural hazard occurring within a country on the one hand, and the potential impact of said occurrence on the other. Countries’ scores on individual natural hazards are expressed as the sum of their hazard-specific probability and potential impact. These scores are expressed relative to the scores obtained by other countries captured by the index. With the exception of “0” scores registered to some countries within the tropical storms and coastal flooding hazard types – which are hard-coded for land-locked countries – a score of 0 does not indicate that the probability of a hazard manifesting and of it having some impact is zero. Rather, it indicates that relative to all countries represented in the dataset, the sum of probability and potential impact for that hazard type is lowest.

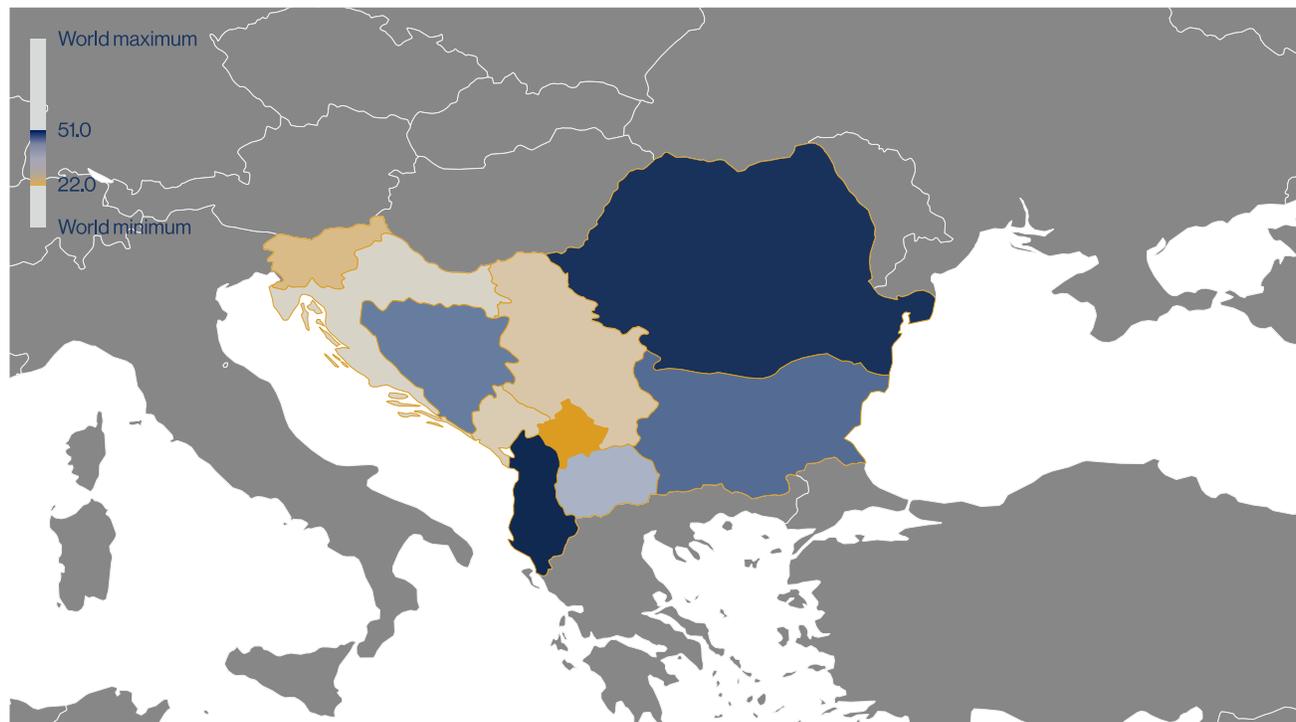
REGIONAL CLIMATE RISK AND RESILIENCE PROFILES

Relative to other countries in the world, the average disaster risk in Balkan nations is lower than average, with a score of 37.9 on a scale of 0 (least risk) to 100 (greatest risk). Only one nation, Albania, surpasses the fiftieth percentile. However, drought, which presents the largest risk to the region, has the potential to have an outsized impact, given the significance of agriculture to the region’s economic output. Tropical storms also raise concerns, particularly for Albania which has a long and vulnerable coastline.

Relative to all countries in the world, the average resilience of the ten Balkan nations receives a score of 52.0 on a scale of 0 (least resilience) to 100 (most resilience). This score puts the region in the middle of the global distribution. Interestingly, Kosovo, which has the lowest resilience score (36.5), also has the lowest risk score (22). Albania, the only nation to surpass the 50th percentile for climate risk, is also the only nation with a lower relative resilience score (48.5) than its risk score (51), making it particularly vulnerable to climate impacts.

REGIONAL RISK PROFILE

Figure 1 - Average disaster risk, the Balkans



Average Disaster Risk (Higher is Worse)

Albania (51.0) | Romania (49.9) | Bulgaria (44.1) | Bosnia & Herzegovina (42.8) | North Macedonia (38.9) | Croatia (35.1) | Montenegro (33.4)
Serbia (32.4) | Slovenia (29.7) | Kosovo (22.0)

As shown in Figure 1, Albania faces the highest disaster risk (51) and is the only country to surpass the 50th percentile in comparative risk. Romania's risk is also notable, hovering just under the global average at 49.9. In contrast, Kosovo faces the lowest disaster risk by a significant margin (22). The rest of the Balkan nations are closely clustered within a 15-point range, suggesting that the Balkans share a large degree of similarity in physical risks, even across politically contentious borders.

Overall, disaster risk ranges from a relative score of 22 to 51 across the ten countries in the Balkans. This range indicates that compared with the rest of the world, the countries in the Balkans experience an overall low to moderate degree of risk due to climate change impacts. Despite this relative measure, rapidly intensifying climate-related disaster risks across the globe are presenting unprecedented challenges in all regions. In the Balkans, post-conflict vulnerabilities, ethnonationalism, economic reliance on agriculture, and past migration flows intertwine with climate risks, such as drought, to raise serious concerns.

Figure 2 - Country risk by natural hazard type

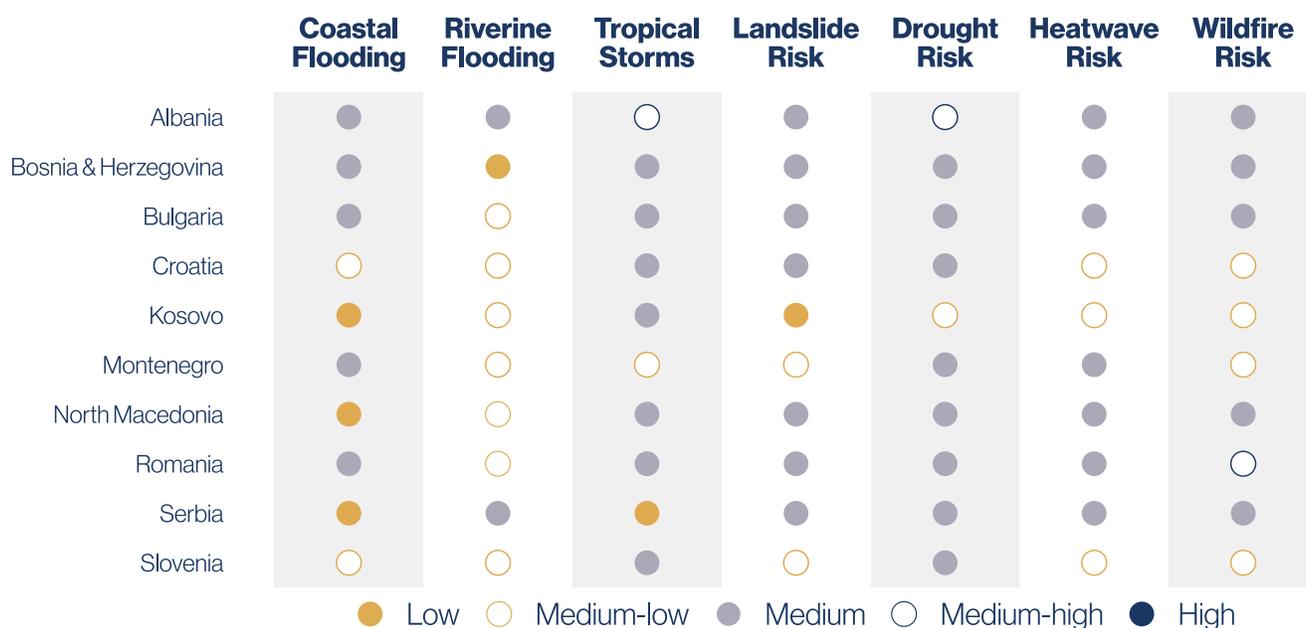


Figure 2 illustrates the specific disaster risks in each country. A medium-high risk level indicates that a country achieved a relative score of between 65 and 85 for a specific disaster type on a 0-100 point scale; a high risk level indicates that it achieved a score of 86 or higher. Overall, the highest disaster risks in the region are drought, tropical storms, and heatwaves. All three of these disasters have impacted the region in the past decade, with an extensive impact on the region’s economy, population movement, energy systems, and agriculture.

In 2014, the tropical storm Tamara resulted in historic flooding that impacted over 2 million people in Bosnia and Herzegovina, Croatia, and Serbia, killing more than 60 people and displacing 85,000.¹⁵ The flooding also caused major economic impacts. In Bosnia and Herzegovina, the cost of the disaster was equivalent to nearly 15 percent of the nation’s total GDP.¹⁶

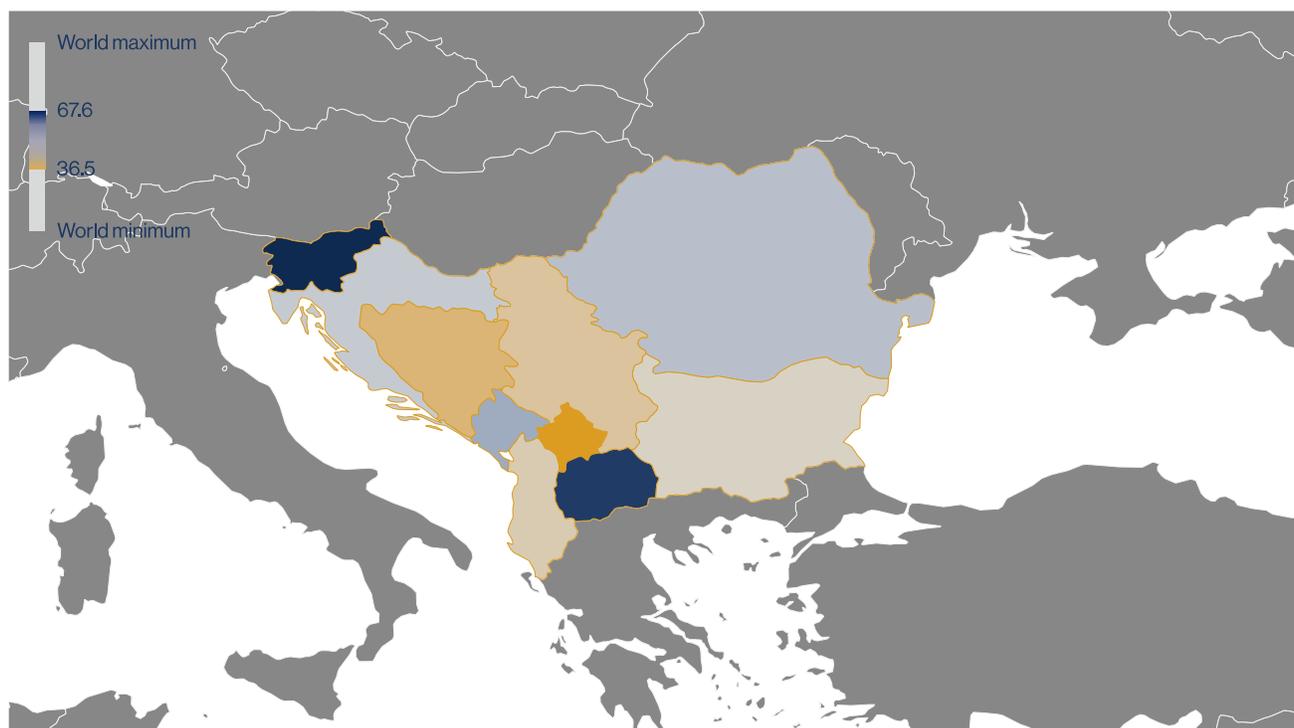
Following the flooding, the Balkans experienced a season of heatwaves and drought in 2017, with temperatures surpassing 41 degrees Celsius in Serbia during the worst of six heatwaves.¹⁷ The drought impacted infrastructure and agriculture and sparked forest fires in the region. It also impacted energy production in areas reliant on hydropower. Beyond its regular imports from other nations, Albania produces nearly 100% of its energy through hydropower.¹⁸ Because of the negative impact of low water levels on hydropower production, Albania was forced to import 80% of its energy during the 2017 drought, illustrating the potential of climate change to impact energy security and economy in hydropower-reliant areas.^{19,20}

Climate change impacts on agriculture and energy production have serious implications regionally. In the Western Balkans, agriculture accounts for 11 percent of total GDP and hydropower provides 37 percent of all energy to the region.²¹

When compared with the rest of Europe, the Balkans face both greater climate²² and socio-political risk.²³ Given its recent history of conflict, the Balkans remain vulnerable to regional insecurity and corruption, and dependent on outside, at times divisive, investment. The impacts of climate disasters on population centers and the economy further exacerbate these risks.

Recent ethnonationalist developments illustrate continuing post-conflict legacies of division that could lead to the resurgence of violence or conflict if not properly addressed. In 2021, an unofficial document (non-paper) was circulated suggesting the redrawing of borders in the Balkans along ethnic lines. The chair of the European Council on Foreign Relations argues that this non-paper reflects an alternative proposal for the future of the Balkans if a full integration with the European Union fails.²⁴ If the region does not feel supported by their European partners, it is possible that those promoting a new order will continue to mobilize support. If climate impacts on livelihoods, economic growth, and migration in the region remain unaddressed, discontent with the current system may grow, making violence along ethnic lines an even greater risk.

Figure 3 - Resilience by country, the Balkans



Average Resilience (Lower is Worse)

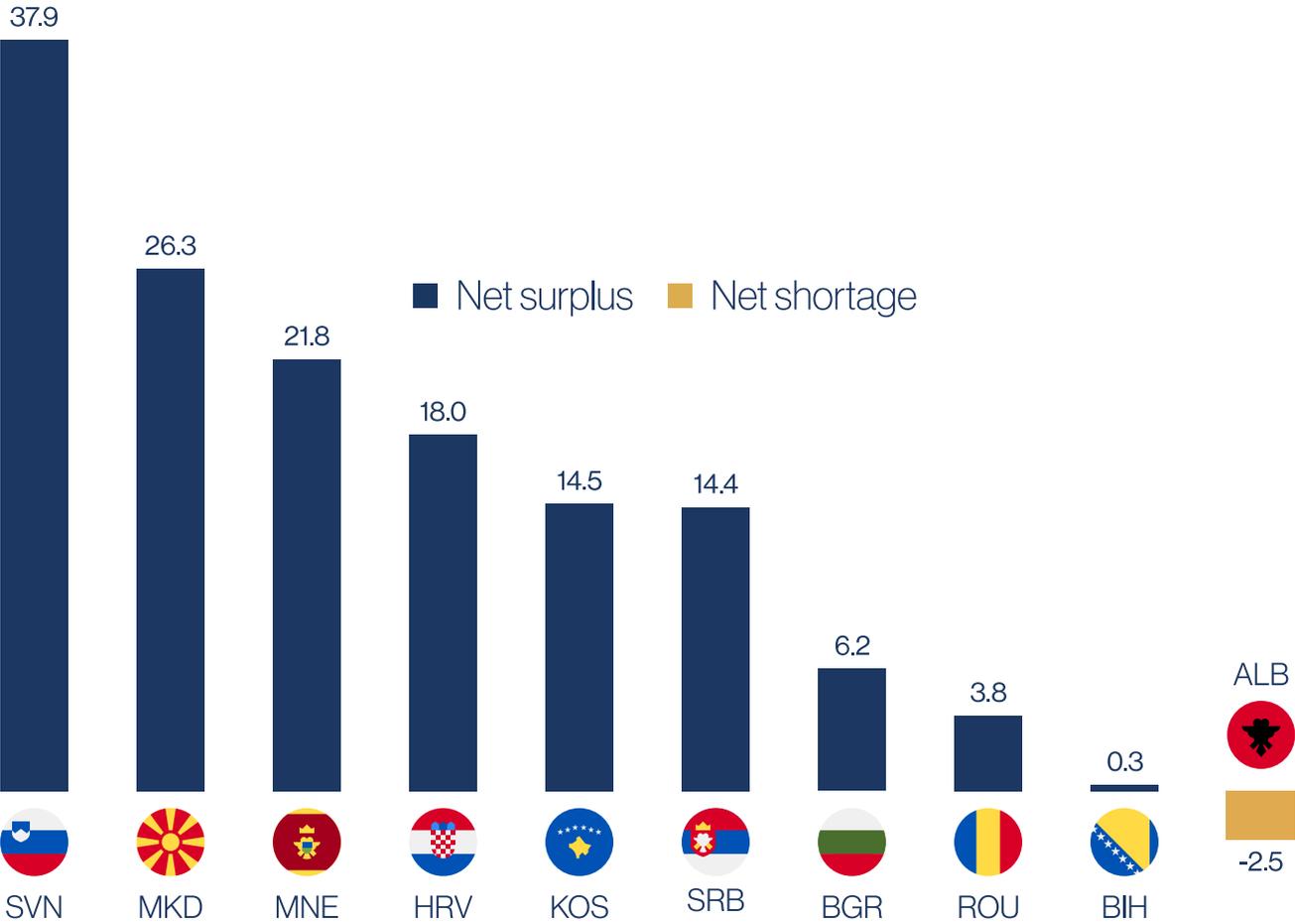
Slovenia (67.6) | North Macedonia (67.7) | Montenegro (55.2) | Romania (53.8) | Croatia (53.1) | Bulgaria (50.3) | Albania (48.5)
Serbia (46.7) | Bosnia & Herzegovina (43.1) | Kosovo (36.5)

Average climate resilience in the Balkans is mid-range, as shown in Figure 3. Slovenia and North Macedonia demonstrate exceptionally high resilience capacity for the region, while Kosovo is least prepared to address climate impacts.

These patterns of resilience reflect elements of the region's history of conflict and independence. Kosovo is the youngest country in Europe and it still lacks global recognition as an independent state.²⁵ In contrast, Slovenia was the first state to declare sovereignty through referendum in the breakup of Yugoslavia. It eventually passed a law for independence on the same day as Croatia in 1991.²⁶ Since then, Slovenia has experienced relative peace and stability when compared to much of the rest of the region, which may have allowed it to develop stronger institutions and infrastructure that are also better equipped to face the challenges of climate change.

The climate security discourse in the Balkans has not been limited to conflict risks, but has also included opportunities to address human security challenges and engage in collaborative peacebuilding. Environmental security programs that were implemented as post-conflict and conflict-prevention strategies have evolved to include a more diverse portfolio of stakeholder interests. Local communities have driven an additional focus on health and livelihood impacts due to climate and environmental factors within programs like the Environmental Security Initiative (ENVSEC).²⁷ Bolstering climate resilience is in the interest of local communities, national governments, and regional institutions alike, and increases the ability of the Balkans to weather disaster risks securely.

Figure 4 - Delta resilience and average disaster risk, the Balkans



When risk and resilience are measured on the Climate Security Risk Index (CSRI), a scale relative to all countries in the world, nations in the Balkans generally receive higher relative resilience scores than risk scores. The only nation that defies this trend is Albania. While Albania’s level of resilience is near average for the region, it faces the most extreme climate risks out of all Balkan nations, which it may not be fully prepared to combat.

CONCLUSION

The Balkans face serious climate security risks stemming from increasing climate hazards such as drought, heatwaves, and tropical storms. When compared to countries globally, climate risks in the Balkans fall slightly below average. The region's resilience falls almost exactly in the middle of the global standard, and the majority of Balkan nations outperform in resilience when compared to risk. However, those relative measures do not minimize the region's vulnerability to increasing climate disasters, especially when compared to other parts of Europe.

Climate security risks in the Balkans include the fact that intensifying climate change impacts may heighten existing post-conflict tensions, threaten Europe's broader climate goals, and increase the region's vulnerability to Chinese and Russian influence. Additionally, climate-induced migration flows from the Middle East and Africa through the region may stoke far right extremism. The outbreak of conflict in neighboring Ukraine only further heightens these concerns.

However, engaged climate security action offers positive opportunities for post-conflict peacebuilding and cooperation in the Balkans, and can build a strong framework of human security for the region. These efforts are critical to continuing to mitigate and adapt to climate change and build peace, security, and climate resilience.

ENDNOTES

- 1 Corinna Reinicke and Ute Enderlein, "Flood preparedness in the WHO European Region: paving the way," *Public Health Panorama* 4, no. 1 (2018), WHO.
- 2 Susanne Wolfmaier, Adrian Foong, and Christian König, "Climate, Conflict, and COVID-19: How does the pandemic affect EU policies on climate fragility?" *Adelphi* (2021).
- 3 Evanthia Balla, "The Evolution of the EU's Security Model Through the Lenses of the Balkans," *International Relations and Diplomacy* 9, no. 6 (2021), doi: 10.17265/2328-2134/2021.06.003
- 4 Frédéric Simon, "Official: Western Balkan countries are 'milking coal power plants until the bitter end'," *Euractiv* (2021).
- 5 "A Credible Enlargement Perspective for and Enhanced EU Engagement with the Western Balkans," *European Commission* (2018).
- 6 Susanne Wolfmaier, Adrian Foong, and Christian König, "Climate, Conflict, and COVID-19: How does the pandemic affect EU policies on climate fragility?" *Adelphi* (2021).
- 7 Vuk Vuksanovic, "How Serbia Became China's Dirty-Energy Dumping Ground" *Foreign Policy* (2021).
- 8 Makar Menshikov, "Pressured by the West Over Russia, Serbia May Look To China" *Balkan Insight* (2022).
- 9 "Migration to Europe Through the Western Balkans" REACH (2016).
- 10 Nermina Kuloglija, Milica Stojanovic, Fatjona Mejdini, Samir Kajosevic and Bojan Stojkovski, "Balkan States Failing to Address Threat from Far-Right Extremism," *Balkan Insight* (2021).
- 11 Emma Hakala, "International Organisations and the Securitisation of the Environment in Post-Conflict Western Balkans," *University of Helsinki* (2018).
- 12 "What is Human Security?" *United Nations Trust Fund for Human Security*, <https://www.un.org/humansecurity/what-is-human-security/#:~:text=As%20noted%20in%20General%20Assembly,context%2Dspecific%20and%20prevention%2Doriented>.
- 13 Faruk Hadžić, "Impact of climate change in Southeast Europe; adaptation policies, environmental and human security, and normative resolutions," *Marine and Life Sciences* 4, no. 1, 1-15 (2022), DOI: 10.51756/marlife.1025195
- 14 For an in-depth overview of the methodology underpinning the CSRI, see <https://hcss.nl/report/climate-security-assessment-a-methodology-and-assessment-of-the-nexus-between-climate-hazards-and-security-of-nations-and-regions/>
- 15 Corinna Reinicke and Ute Enderlein, "Flood preparedness in the WHO European Region: paving the way," *Public Health Panorama* 4, no. 1 (2018), WHO.
- 16 Linda Van Gelder, "It is Time for Action on Climate Risk in the Balkans," *The World Bank* (2018).
- 17 "Climate in 2017 - Focus Region: Southwest Europe," *Copernicus* (2017), European Commission.
- 18 Sead Turčalo, "Energy Geopolitics in the Balkans," *Friedrich-Ebert-Stiftung* (2020).
- 19 Susanne Wolfmaier, Adrian Foong, and Christian König, "Climate, Conflict, and COVID-19: How does the pandemic affect EU policies on climate fragility?" *Adelphi* (2021).
- 20 "Albania forced to import 80 percent of electricity due to drought." *Balkan Clean Energy News* (2017).
- 21 Sandi Knez, Snežana Štrbac, and Iztok Podbregar, "Climate change in the Western Balkans and EU Green Deal: status, mitigation and challenges," *Energy Sustain Soc* 12, no. 1 (2022), <https://doi.org/10.1186/s13705-021-00328-y>
- 22 "Rankings," *Notre Dame Global Adaptation Initiative* (2019).
- 23 Evanthia Balla, "The Evolution of the EU's Security Model Through the Lenses of the Balkans," *International Relations and Diplomacy* 9, no. 6 (2021), doi: 10.17265/2328-2134/2021.06.003
- 24 Carl Bildt. "The Balkans non-paper and the dangers of Plan B," *European Council on Foreign Relations* (2021).
- 25 "Countries That Recognize Kosovo 2022," *World Population Review* (2022).
- 26 "The Breakup of Yugoslavia, 1990–1992," *U.S. Department of State Office of the Historian*.
- 27 Emma Hakala, "International Organisations and the Securitisation of the Environment in Post-Conflict Western Balkans," *University of Helsinki* (2018).



THE CENTER FOR
CLIMATE AND
SECURITY

COUNCIL ON
STRATEGIC
RISKS



The Hague Centre
for Strategic Studies

CLIMATE SECURITY SNAPSHOT THE BALKANS

A VOLUME OF
THE WORLD CLIMATE AND SECURITY REPORT 2022

A Product of the Expert Group of the
INTERNATIONAL MILITARY COUNCIL ON CLIMATE AND SECURITY

JULY 2022

AUTHORS

Elsa Barron is a Research Fellow at the Center for Climate and Security (CCS), an institute of the Council on Strategic Risks (CSR). She is also the Co-Chair of the Young Professionals Interest Group at the Environmental Peacebuilding Association. She has worked on environment, climate, and peace-related research and advocacy at the Institute for Climate and Peace, Faith in Place, the Payne Institute for Public Policy, the Wilson Center Environmental Change and Security Program, and the NGO Committee on Financing for Development. Elsa is the host of the environmental peacebuilding podcast, Olive Shoot, which highlights reasons for hope in the midst of the climate crisis through global grassroots action. She graduated from the University of Notre Dame with majors in biological sciences and peace studies and a minor in sustainability. While at Notre Dame, Elsa focused her research on developing a framework for positive environmental peacebuilding in Palestine, Israel, and Bangladesh.

Hugo van Manen is a Strategic Analyst with *The Hague* Centre for Strategic Studies (HCSS). Prior to joining HCSS, Hugo worked as a consultant at Ecorys, where he was involved in several EU-commissioned projects within the field of civil protection, including the International Forum to Advance First Responder Innovation, DRIVER+, and DG ECHO's peer review program. He holds a Master's degree (MSc) in International Public Management and Policy from the Erasmus University in Rotterdam and a Bachelor's degree in International Studies from Leiden University.