WHERE ONCE WAS HOME

HUMANITAS

Migration stories written by the climate crisis

Where Once Was Home

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Sending *Where Once Was Home* on its path

Manca Šetinc Vernik

Welcome to a literary journey around the world. This book will take you on a journey to discover the diverse personal stories of individuals and their communities from very different parts of our planet. Through their stories, you can learn how much they are affected by the relentless forces of climate change. The book is the result of a collaborative effort by the participants of the "Beyond the Tales" project, in which we have been piecing together and finding the links between the climate crisis and human migration. These links are often – intentionally or unintentionally – still overlooked today. Namely, the impacts of the climate crisis, which force people to move, are not always instantaneous, extreme and catastrophic, as we have also seen in Slovenia – last year with the severe drought and almost uncontainable fires, and this year with the devastating floods. More often, they are gradual and slow, barely perceptible to the casual observer, but no less severe, no less deadly. How to notice the consequences of rising sea levels, of groundwater being flooded with seawater, of soil salinisation, of expanding desertification? Can we see the causes of the frequency and length of droughts, even droughts lasting for years, of livestock dying and crops failing again, of the links between the melting of thousands of years of ice and the scarcity of drinking water on the other side of the world?

People's decisions to move are therefore not just about saving their own lives and the lives of family members in one particular moment, but about hoping for a better future for coming generations. They are a form of human response and adaptation to a changing world, in this case, the climate crisis. This is why this book is first and foremost a demonstration of humanity's potential, a demonstration of human resilience in a changing world of climate extremes. In the stories, you will discover internal migrations, i.e. migrations within a country, as well as those across borders, including those over vast distances; you will read about the desire to return to one's homeland, as well as the shattered dreams when home is gone and when returning is no longer an option, because life there no longer makes sense. You will learn about the brave decisions to persevere on one's own land, but also about the fears of the tragedy of the possibility

of becoming a refugee twice, first as the political one, that of persecution, and secondly as the climate one, linked to the consequences of the climate crisis.

The "fieldwork" part of the project, which was carried out through online connections, phone calls, conversations and online video chats, brought together people from all over the world: from as far away as Chile, Colombia and Bolivia, to Myanmar and the Philippines, from Uganda, Iran and Palestine, to Spain, Austria, Bosnia and Herzegovina, and Slovenia. Participants met each other and shared their stories of climate-related displacement. The personal connections and friendships forged in the process transcended all geographical and cultural barriers, and there were often tears as well as laughter in the testimonies. The result of these heartfelt connections is the book before you – *Where Once Was Home*, featuring 17 stories from all over the world.

These are not just stories; they are windows into the hearts, minds and homes of people who have faced the harsh realities of changes to the world we once knew. As you read through these pages, you will discover the power of personal narratives that reveal hidden truths about the climate crisis. The stories go beyond the bland statistics, analyses and headlines of studies and articles, and invite you to step into the shoes of those who have had to make life-changing decisions. They will show you not only today's struggles for survival, but also the seeds of tomorrow's victories, sown in the fertile soil of human compassion.

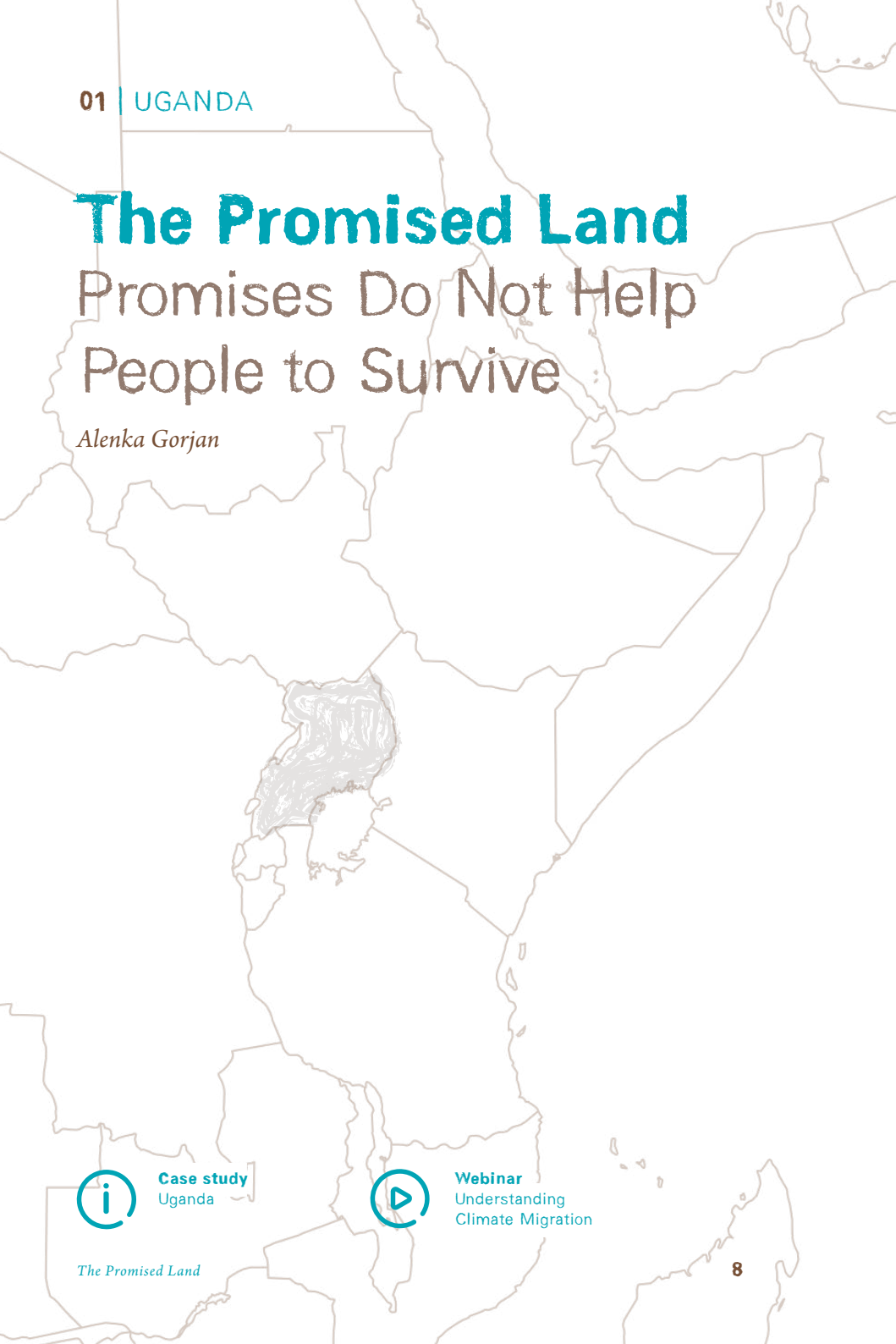
But the book also presents a mirror and a unique opportunity to question our own perception of the world and, above all, our actions in it. We can ask ourselves whether we are ready to take responsibility for tomorrow, but also for the past: for our historical and moral responsibility as heirs and heiresses of the (neo)colonial capitalist impoverishment of people and nature, all in the name of progress. The latter was dictated by the capital of the global North, while the consequences of the imperialism were first felt by the people of the global South, far from our eyes and far from our hearts. But now its impacts are increasingly catching up with us, too. With all the accumulated knowledge, data, ideas and stories around us, what are we doing about it right now? What can we do, individually and collectively, to mitigate the climate crisis that we are only now increasingly experiencing first-hand? This is the question that we

will all have to answer, whether we like it or not, to our children and to future generations, from whom we are currently borrowing the world of the present. *Where once was home* is also an invitation to become part of a global story in which we all have a role to play in the struggle for a more resilient, compassionate, just and sustainable future world, for all.

The Promised Land

Promises Do Not Help People to Survive

Alenka Gorjan



Case study
Uganda

Webinar
Understanding
Climate Migration

In this story, we explore the journey of one individual against the backdrop of a global challenge that affects countless lives. Climate change, an unprecedented crisis, has cast its shadow over humankind, presenting numerous daunting challenges. Its effects are felt by everyone, albeit to varying degrees. Tragically, some are being forced to abandon their homes in a desperate bid to survive. Despite the gravity of the situation, the status of climate refugees has still not been resolved.

As I write this story, a severe storm is raging outside, accompanied by strong winds, heavy rain, and hail. As I peer through the window, hoping for the best, my thoughts turn to a former teacher from Uganda. He told me of the plight of people who had survived landslides, only to migrate to another district and now have to suffer from hunger due to the lack of rain. Although the African continent contributes the least to emissions, it is the most affected by climate change. In recent decades, Uganda has experienced more erratic rainfall, leading to bursting rivers, mudslides and landslides that claim lives and devastate communities, especially in mountainous regions. Moreover, prolonged dry seasons are becoming more frequent, leading to crop and livestock losses and confronting many people with the consequences of climate change.

Bududa District, Henry's birthplace…

One of the most affected mountainous regions in the eastern part of Uganda is Bududa District, where former primary school teacher Milton Henry Mutsaka was born. He spent his life on the slopes of Mount Elgon, close to Mount Elgon National Park, where the rainfall was abundant, and the water supply adequate for growing crops. For 22 years, he devoted himself to teaching primary school, earning a modest salary as a third-grade teacher that did not meet his personal needs. He lived with his family in a house consisting of a living room,

a dining room, three bedrooms and a kitchen. He owned a small plot of land near his home where he could grow bananas, cassava, beans and yams for home consumption and coffee for commercial purposes. He also had two exotic cows that provided him with milk. On weekdays, from Monday to Friday, Henry worked at the school from 7:00 am to 5:00 pm. When he got home from work, he took care of his two cows. At weekends, he devoted his time to his garden.

Everything changed…

However, climate change and the increased occurrence of heavy rainfall transformed Bududa District into a landslide-prone area, posing a significant threat to the survival of its residents. Over the past decade, the district has experienced several major landslides, resulting in large-scale loss of lives, homes, properties, schools, domestic animals and crops. Henry and his family lost their loved ones, their home, both cows, house properties and crops.

Due to the harsh living conditions and the ongoing threat of landslides in Bududa District and other mountainous regions in Manafwa, Namisidwa, Sironko and Bulambuli Districts, many people are forced to migrate in search of safer living conditions. The government has secured a site in Bugisu sub-region, in a flat area of Balambuli District, bordering the semi-desert area of Karamonja sub-region in the north-eastern Uganda, as a safe place for the survivors. Construction of the three-room houses began in 2018. From May to July 2019, the first phase of resettlement of 101 households took place in Bunambutye Resettlement Area Bulambuli District.

Promised land

When I met Henry, he and his family had already settled into a new home in Bunambutye Settlement, a promised land for people who had lost so much. In addition to his seven children, he took in two other boys who lost their parents in a landslide. His family came here during the second phase of resettlement in February 2020, when 141 households were relocated. His relatives were also included in all phases of resettlement. The third phase of resettlement of 22 households followed in February 2022, and the most recent, the fourth phase, in which 42 households were resettled, took place in April this year.

As the community grows, so do the challenges facing its residents. The Office of the Prime Minister is currently developing a

strategy to resettle over 1,000 additional households from the Manafwa, Namisindwa and Sironko Districts, and predominantly from the worst-affected Bududa District, where Henry and his family once lived.

After resettlement, Henry was supposed to continue teaching in his home district. However, as he had no house there and he would have to travel there every day, and with the low salary offered by the government, he decided to retire. After obtaining a loan from Bumasari Tuuban Resettlement Maize Farmers Sacco Ltd., he seized the opportunity to engage in farming on a larger scale as a business venture.

New home, new challenges

The people who had already endured so much, and who had been promised "heaven on the Earth", as Henry put it, were now facing additional challenges arising from prolonged dry seasons, leading to a lack of drinking water, destroyed crops and hunger. During our conversations, Henry was overwhelmed with worry.

When Henry and his family decided to migrate to the semi-arid Bulambuli District settlement, the government made numerous promises. Each household in the second resettlement was provided with a three-room house, situated on one acre of land, along with additional two acres of fertile land for cultivation. Henry was looking forward to the opportunity to live a decent life, to grow their own food, to engage in larger-scale farming and to provide for his children's education and a brighter future.

However, the numerous promises made by the government have yet to be fulfilled, leaving the resettled people to face new and harsh conditions. Promises of clean gravity-fed water for domestic use, tap water, electricity, water for production, heifers for milk in each household, as well as essential household items and a tractor, have not been fulfilled. As he adds, nor was the commitment to provide primary, secondary, and university education for their children, along with grants from NGOs such as GiveDirectly, World Vision, Save the Children in Uganda, Will Trust, UNICEF, UWESCO, CARE, Oxfam, and ACCRA (African Climate Change Resilience Alliance). A primary school has been built, but was not fenced in for security reasons. Other unfulfilled promises include the construction of administrative units in the settlement and a secondary school to address the problem of poor education for their children, as well as the construction of churches.

"All we urgently need at this moment is water for domestic consumption and cultivation. If we would at least get help with the water supply, we would somehow manage and be able to take care of our families," Henry told me.

In Bunambutye Settlement, only one water reservoir was built, followed by the installation of solar panels to extract water from underground sources into plastic tanks. During the first resettlement, the 101 households were provided with tap water, but the supply proved inadequate. Currently about 300 households, comprising more than 5,000 people, share this water, which tastes salty compared to what they had in the hilly areas. Those who arrived during later phases of the resettlement, like Henry and his family, have to walk long distances to fetch drinking water, as they lack tap water in their homes. Moreover, in some cases they reach the water source only to find it has been drained. The health facility and primary school also lack reliable water supply and electricity.

When Henry and his family came to this rescue settlement, they were promised relief food on a monthly basis. However, after only a year, the food aid stopped, despite the fact that they still lacked a reliable water supply to grow their own food. Henry, like many others, planted maize, beans, groundnuts, sunflower, cassava, sweet potatoes and sorghum using hand hoes for home consumption and commercial use after a rainfall. Unfortunately, a prolonged dry season followed, destroying most of the crops and leaving many people hungry. Without crops, there is no food. They have asked the government for at least some food, but despite their pleas, they have yet to receive any help. They are hoping for some rain in July, but some residents are already considering returning to their former home/district in search of food to survive. "If only there was enough rain, it would feel like home," Henry sighed.

When Henry and I last wrote to each other at the end of July, the situation was still the same. Anticipating some rain during the month, people had planted their crops early, hoping that every drop of water would help them germinate. Unfortunately, it only rained once, which did not help the crops grow as they had hoped.

New life

"Currently, life is so boring since there is nothing much we can do, given the prolonged drought, except think about what to eat day

after day," says Henry. He takes great pride in his four sons and three daughters, but is also worried about their education. Access to quality education comes at a higher cost in private schools, and unfortunately there are no such schools in their settlement. All of his children, with the exception of one who recently completed a bachelor's degree in pharmaceutical science at the university, are currently attending school. His second son is eagerly awaiting admission to pursue a Bachelor of Science degree in agriculture, while three of his children are in secondary school and the youngest twins are attending private primary school in order to get a quality education foundation. Additionally, Henry looks after for two boys who tragically lost their parents in a landslide, and they are also attending secondary and primary school under his guardianship. At the moment, none of the children receive any government support, which means that Henry has to bear the burden of their tuition fees himself.

As the government focuses on resettling numerous households in this region from high-risk areas, particularly Bududa District, without fulfilling its initial promises, Henry and other residents already living here feel forgotten and unheard. The government is failing to acknowledge the challenges people face after resettlement, leaving them still waiting for the promised support.

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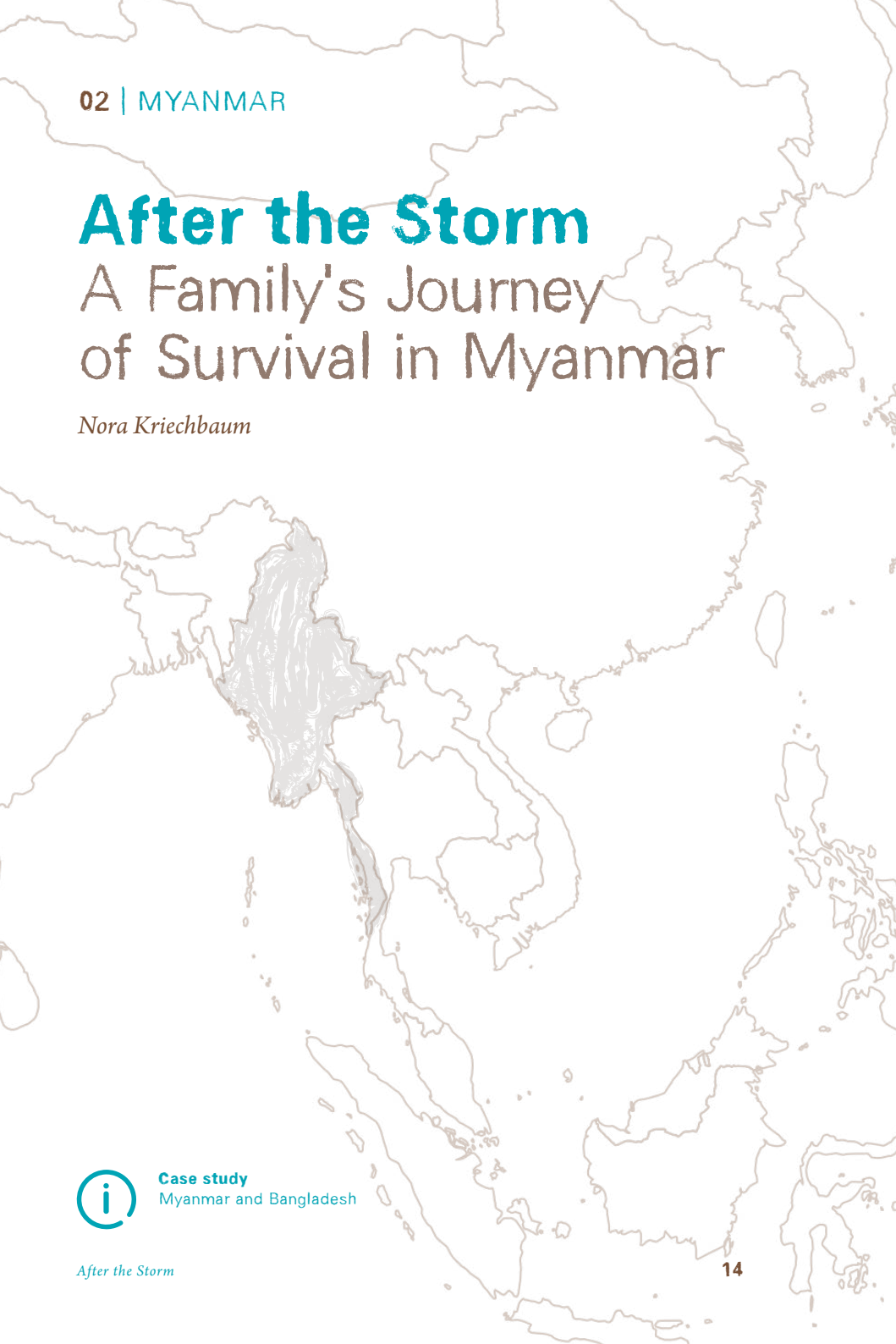
Henry says it is sometimes difficult to stay positive. He acknowledges that the government's provision of ample fertile land for those resettled in the Bunambutye area has been a positive measure. The residents, who are hardworking, greatly appreciate the opportunity to cultivate the land, not only for their own subsistence as before, but also for commercial purposes. Sufficient access to water would enable them to take care of their families effectively. Their main concerns revolve around their children. Without adequate support for their children, their lives are at risk. Therefore, they continue to hope for someone within the government to listen to their pleas and provide the necessary assistance. A proper water supply would give them a sense of belonging and independence, as they would no longer have to rely on others. Henry hopes that the government will recognise that they face similar challenges to the neighbouring semi-desert Karamonja sub-region in the north-eastern Uganda and provide them with the same level of assistance.

After the Storm
A Family's Journey of Survival in Myanmar

Nora Kriechbaum



Case study
Myanmar and Bangladesh

I met Naw in May 2023 when we spoke with the help of modern technology, me in the comfort of my own home in Vienna and Naw surrounded by lush green vegetation, under a wooden roof in in Hpa-an, the capital city of Karen State, Myanmar, where she now lives.

It's a cold rainy afternoon at my place, and the sun is shining on Naw's face as she introduces herself: Naw Eh Wah is 37 years old. She has 4 daughters. They are 15, 11, 7 years and 4 months old. Naw pauses before continuing slowly: "My first child was a boy. He died in May 2008 during the cyclone, when he was only 3 years and 11 months old."

Naw comes from the small village of Talupartaw in Ayeyarwady Division. The village lies by the Irrawaddy River. With seriousness in her voice, Naw remembers: "The day the cyclone destroyed the village, it was windy. At 1 pm, people heard on the radio that they should cook early and then go to a safe place because there would be a 'strong wind'. But we didn't get to eat. We didn't expect the storm to be so strong. This had never happened in our village to any generation before, and people didn't know what to do when a cyclone was approaching the land."

Naw continues: "The water was rising fast and some people rushed to climb up the church, which seemed big and high enough to be safe from the flood. But the water rose so high that they were stuck on the building when the cyclone hit the village. Almost all the people stuck on the roof of the church died. There was a big storm and flooding. I lost contact with my family members. Everyone was just trying to survive by holding on to something that floated on the water to keep them from drowning. I survived by managing to grab a tree and try to hide from the storm. The water covered everything, including my house. When the morning came, I realized that everything was gone. My house was destroyed and we lost our little son. My uncle and his family all died. Of the 100–200 households in the village, about 30 of my relatives died. More than hundred died together with other households."

Leaving the village and starting a new life has not been easy, Naw explains. "Two days after the cyclone and the destruction of the village, we didn't get any help from the government. My husband and I decided to move to the capital together with several other inhabitants of the village. The pastor helped make contact with people from another village who formed a rescue team and helped the people flee to Hpa-an, the capital of Karen State. In total there were 4–5 groups who came to the city from different villages after the cyclone destroyed their homes. The government promised some help to give them a base to start a new life. When we arrived in the capital, the government only gave us $20 per month per family for five months. Some of the 4-5 groups received some more of the promised help from the government on arrival in the form of money, rice, and other supplies."

After leaving, life changed…

"Back in my small home village, I used to farm and fish for prawns and fish in the river, together with my husband. We didn't have our own farm, but we worked on a farm for other people. My income back then was around two dollars a day. In my daily life now, I cook and do the laundry for the family by hand in the morning. I earn my living washing clothes by hand for people in their homes. My husband works in rice shops, where he has to carry as many rice bags as possible, which is a physically demanding job. We use our income to buy food at the market and struggle to pay the rent. People from the same village as us, who experienced the same disaster and also fled, live nearby. It is important for me to go to the nearby church every day."

When asked about her goals and wishes and what she would like to see, Naw's face lights up, she takes a breath and then says: "I would like to have a peaceful life, a good and big enough home for my family, where we can all live together, where we don't have to pay rent and where we have better living conditions." Naw makes a difficult pause and then continues: "I haven't been able to visit my village again, but I would like to go back and see my mother who I haven't seen since we left. She is still in the village and I would like to show her her grandchildren. She can't come to the capital herself because it's very far, she is over 60 years old and too weak to travel." Naw sighs: "For me and my family to travel back to their village of origin would cost 100 dollars, and that is too expensive. We would

have to save our entire 3 months' income. But we are not planning to move back to our village. It would be too hard to build our lives there again."

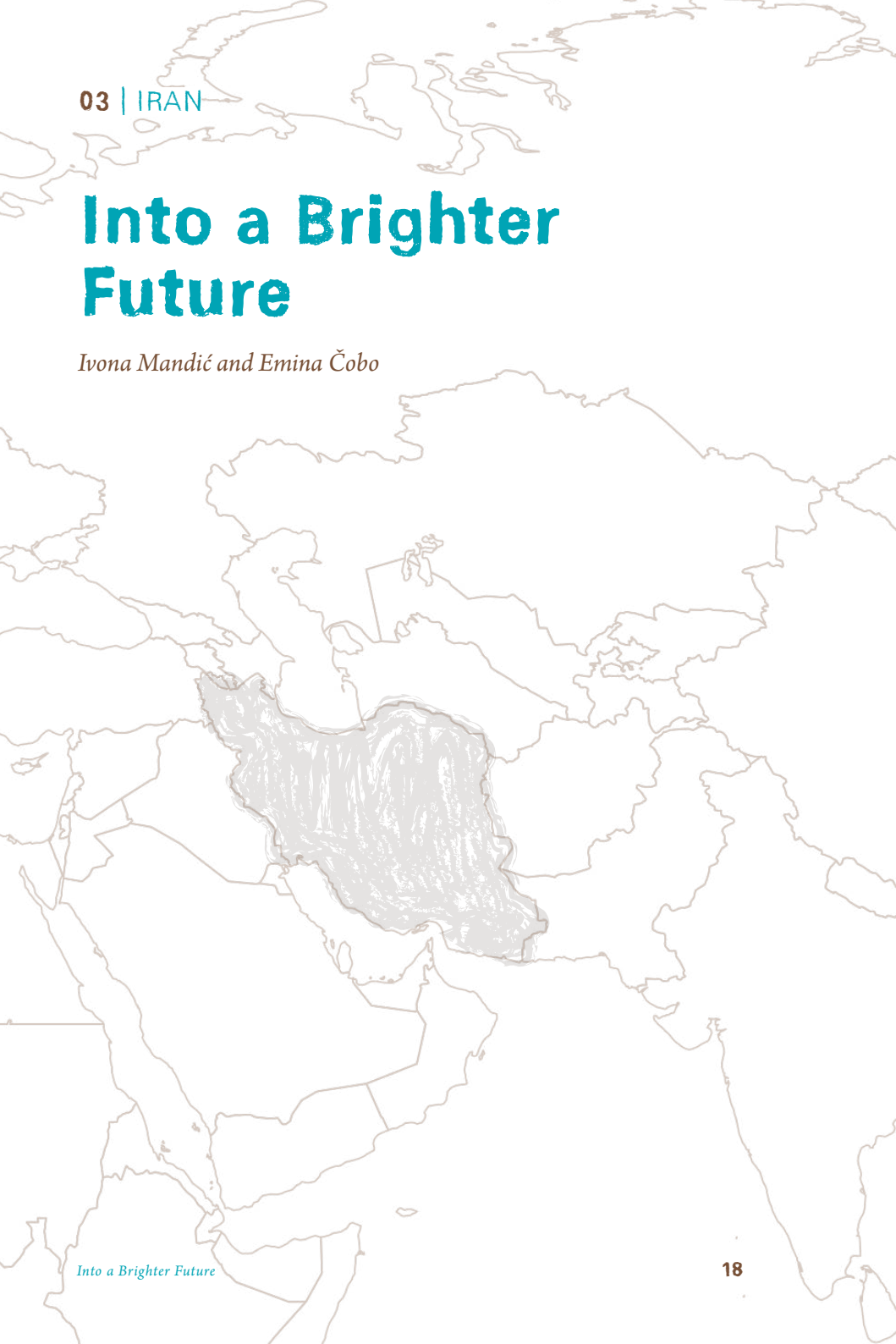
Naw explains that people know that a cyclone similar to the one in 2008 is expected in the coming months. "People are already preparing and moving to higher ground. The government and the international community are expected to alert the population this time in good time, which means as early as possible, prepare them, instruct them and help them to better protect themselves and provide more immediate help after the cyclone so that people don't have to move elsewhere."

* * *

The cyclone that Naw knew was coming formed the day after the interview and made landfall in Myanmar on 14 May 2023. It affected 1.6 million people. More than 455 people died.

Into a Brighter Future

Ivona Mandić and Emina Čobo



Once upon a time, in the sun-scorched land of Iran, there lived two childhood friends named Arash and Leyla*. They were inseparable and shared a deep bond that blossomed into love as they grew older. However, the harsh reality of their homeland began to cast a shadow over their dreams.

In their homeland, Arash and Leyla faced a daunting trial of nature's wrath – terrible droughts ravaged the once fertile lands, leaving the soil parched and unyielding. As the crops withered away, so did the hopes of prosperity for the villagers. In the face of such hardships, many from the rural villages and small towns sought refuge in the bustling capital, hoping to find a semblance of a better life. However, the capital, once vibrant and welcoming, struggled to bear the weight of this desperate influx, leaving it overburdened and polluted. The teeming masses strained the city's resources, making it challenging to provide for all those who sought solace in its crowded streets. Thus, the plight of Arash and Leyla's homeland forced them to embark on a life-changing journey – a journey fuelled by love, survival, and the pursuit of a brighter future beyond the horizon.

Those who gazed upon the scorched face of nature under Iran's blazing sun witnessed the true face of global warming and climate change. Along with the drought came parched lands, desolate agricultural fields, and rising temperatures that were fundamentally impacting Iran's way of life. Rainfall from the heavens had become insufficient, and the soil was cracking from thirst. Agriculture groaned under these harsh conditions; crops seemed withered, vegetation appeared as if turned to ash, and farmers were fiercely battling scarcity.

Water, the source of life, was meant to be abundant, yet it too had fallen into distress. The once simple act of finding drinking water had become a struggle. Rivers were drying up, lakes were shrinking and water sources were rapidly depleting. This situation was affecting every layer of society; rural farmers struggled to sustain their agricultural activities, while urban dwellers carried the weariness and concerns of the drought. Drought and heat weren't

* The names are fictitious and the story is a mixture of both testimonies of locals and people with international protection living outside Iran.

merely threatening the soil and water; they were also endangering human lives. Villages were being abandoned, and migration put an extreme strain on the cities. People flocked to cities, carrying their hopes, yet urban areas were grappling with their own issues. Limited energy resources, rapid unemployment, and potentially overwhelmed infrastructure painted a challenging picture.

Iranians resisted these harsh blows of nature. They contemplated ways to establish sustainable water management, worked to prevent desertification and researched into alternative energy sources. However, this struggle was far from easy. Driven by their love for their land and heritage, people rose to these challenges, all in the hope of leaving a better world for the generations to come.

Arash was working quite hard. He did not really want to leave his country. He was a professional teacher, but in his spare time he worked in agriculture. It was yet another of earning money for bread. He fought so hard, but his alternatives had vanished. In the early months of 2016, Arash found himself at a crossroads that would shape his destiny. Living in his native Iran, he harboured a fervent desire for a brighter future. With limited knowledge of the complex path to Europe, he embarked on a journey of hope. His first destination: Turkey, a country he ventured into with a heart full of anticipation. The Turkish landscape felt strangely familiar, yet Arash sought more than just physical proximity. He yearned to connect with fellow refugees in Istanbul, absorb their stories and forge bonds that would prove crucial on the arduous journey ahead. In conversations held in hushed tones, he gleaned insights into the clandestine world of smuggling networks, the high price of passage and the benevolent souls willing to extend a helping hand. Summoning his courage, Arash made a life-changing decision. Together with a band of fellow travellers, he embraced a perilous offer and set out from Turkey to reach the shores of Greece.

The year was 2016, a time when Greece was grappling with an overwhelming influx of refugees. As they approached the border, the atmosphere grew tense. In an attempt to regulate the constant flow of humanity, officials scrutinised every document, every face. For Arash, this marked a critical juncture. Fearful of returning to the land he had left behind, he took a drastic step – he got rid of his personal papers and adopted a new identity, that of an Afghan national. This calculated risk was underpinned by an understanding

that Afghanistan's administrative struggles made obtaining documentation a formidable challenge. To fortify his facade, he diligently learned rudimentary elements of the Afghan language. Their journey did not stop in Greece. With Northern Macedonia and Austria as the subsequent waypoints, Arash and his companions pressed on. In Austria, a member of the Schengen zone, known for its rigorous scrutiny, his ruse was soon uncovered by a perceptive translator at the border. This led to his apprehension and detention as Slovenian authorities initiated the process of verifying his true identity.

Arash's story echoes the struggles of countless people on the flight who dare to cross the borders of Europe. The journey is a blend of hardship and pain. Arash's experience revealed the unforgiving nature of the journey, where the simple act of crossing a border carried the weight of fear and uncertainty. Every checkpoint presented a challenge, every encounter with authorities held the potential to unravel dreams. Yet, amidst the tumultuous landscapes and the stern faces of those who held power over the passage, the story of Arash prevailed. It whispered tales of resilience and determination, revealing the indomitable spirit of those who sought refuge beyond the borders, driven by an unyielding hope for a better life. Arash's experience was a poignant reminder of so many who dare to cross Europe's borders, each with their own dreams and struggles.

Driven by the desire to provide a better future for himself and his beloved Leyla, he had finally reached Europe. The thought of leaving Leyla behind broke his heart, but he promised to send for her once he was settled. True to his word, Arash established himself in a new nation and awaited Leyla's arrival with bated breath. Months passed, and Leyla embarked on a daunting journey to reunite with her love. She traversed vast seas and unfamiliar lands, her heart guided by unwavering love and the hope of a better life. However, upon reaching Europe, they faced challenges beyond their expectations. Their identities as people with migrant background from a poor country often led to prejudice and discrimination. Jobs were scarce, and they struggled to find well-paid work that matched their skills and aspirations. The once familiar streets and alleys of their homeland were now replaced by an alien landscape, where cultural nuances and language barriers became formidable obstacles.

Despite the hardships, Arash and Leyla's beliefs taught them the importance of compassion and understanding. They encountered

people from various backgrounds – some welcoming, others wary of the unfamiliar. Their experiences taught them to be respectful, for they could never truly know the struggles of others. As time passed, Arash and Leyla adapted to their new life in Europe. Although they found peace and opportunities they could only dream of in Iran, they could not help but compare their past and present. They cherished memories of their homeland, its rich culture, and the warmth of their families.

Yet, the path they tread was uncertain, and their story did not end with a neatly tied bow. They knew that life's journey was full of twists and turns, and they embraced the unknown with hope and determination. With each passing day, they discovered the beauty of resilience, learning to navigate through the uncertainties hand in hand. For the future is an unwritten story, and they are the authors of their own destiny. And in their quest for a place to call home, they find that the true magic lies in their unwavering love for each other and the strength they draw from their diverse and ever-evolving identities. In the tapestry of their lives, woven with threads of hope and determination, they discover the power of unity, acceptance, and the shared dreams of two people on a journey to find their place in the world.

Planting Seeds for the Future

Ingrid Maraspin

Case study
Palestine

How is the climate crisis affecting the daily lives of Palestinian people?

Anwar is a young architecture engineering graduate from Palestine who has been living in Slovenia for 3 years now. After graduating in Palestine she had decided to join her husband who was studying mechatronics engineering in Slovenia, but in order to leave the country she needed a student status, an employment contract, or her husband needed to be employed so that she could apply for family reunification.

When the Palestinian Ministry of Education published a call for applications for a scholarship from the Slovenian government for Master's and PhD studies, she applied, and despite the tough selection due to the high competition for scholarships abroad, Anwar managed to get it, and so her journey began...

This trip was her first chance to visit Europe and learn about different life realities. Since then she has built a bridge of ideas, initiatives and hope between Palestine and Slovenia. She is currently pursuing a master's degree at the Faculty of Architecture of the University of Ljubljana and is working on several projects dealing with social architecture, refugees and climate migration, especially in Palestine.

Many young people want to leave the country to study (and later hopefully work) abroad due to the complex political situation in their country, the economic crisis and the high levels of poverty, which have worsened since the pandemic. Her initial idea was to form a start-up with her husband in the field of mechatronics applied to architecture, designing smart homes and new technologically advanced housing solutions. Unfortunately, the pandemic started at the same time, which, like elsewhere in the world, led to the closure of the construction sector as it was not a priority and deepened the economic crisis in the country.

The situation in Palestine was already complex from a social, political and economic point of view before the pandemic, but after the prolonged closure of the construction sector and the increasing difficulties caused by climate change, life became very expensive

for basic things (people could not afford agronomic products in particular at that time), so Anwar and her husband decided to apply their engineering and mechatronics skills in the agricultural sector – creating smart greenhouses to promote self-sufficiency for the local population and of farmers facing serious drought problems. Agriculture in Palestine is a very problematic sector due to the high cost of water and energy resources, which are under Israeli control – their own resources are rationed and sold to the Palestinians at a very high price, so in addition to the cost there is the problem of the amount of water and energy made available to them…

Three years have now passed since their first smart greenhouse project, which marked the beginning of their pioneering journey in solidarity activism. In the first project, Anwar decided to involve a group of ten women to give them the opportunity and concrete knowledge of agricultural self-sufficiency. The smart greenhouses designed were 3x6 metres in size and equipped with small solar panels and small but precise sensors to control air humidity, soil moisture, temperature and lighting sensors via an irrigation computer. In this way, the greenhouses used the minimum amount of water and energy necessary for the plants to grow, resulting in significant cost savings. These greenhouses are still in use today and have tripled the amount of vegetables produced compared to the traditional method, allowing not only self-sufficiency for their families but also the sale of surplus produce.

After the positive experience in the city of Tulkarem in the north of the West Bank, they thought about trying to transfer the project to less agricultural cities, and last year they received funding from the Lithuanian Embassy in Palestine to build a larger greenhouse in Ramallah (the economic capital of the country). Since then, their projects have targeted women, refugees and other disadvantaged groups. The smart greenhouses that Anwar is proposing to set up in refugee camps (refugees come from other parts of the country and, once settled in these poorly equipped temporary areas, are unfortunately destined to live there forever) are larger in size, but still very low in water and energy consumption, making them an excellent solution for improving the living conditions in these communities.

In addition to helping the local population to be able to grow vegetables and edible plants, Anwar decided to address another emblematic aspect of her country: the lack of green space. Due to extreme temperatures and irrigation costs, agriculture and gardening

are not sectors that attract the interest of the population or potential investors. Planting trees, shrubs and grass is not seen as worthwhile because of the cost, but also as unsustainable in the long term. Anwar explains that there are ongoing political conflicts with Israel over the ownership of land, soil and its use – control of the land has a strong symbolic value of dominance and independence for both sides. Due to the political, social and economic instability of the country, links with the agricultural traditions and practices that once existed in various Palestinian areas have gradually been lost, but according to Anwar, cultivating one's own land is a fundamental activity for maintaining one's own identity.

Unfortunately, young people who want to work on issues of social architecture and sustainable development do not find much feedback in terms of projects, funding and incentives from the Palestinian state. The state offers various collaborations and supports individual initiatives, such as donating of trees to be planted, but does not invest and collaborate in a systemic, operational and sustainable way. According to Anwar, the underlying problem is a lack of interest in the agricultural sector on the part of the two main actors – the young generations and the state. Young people see agriculture as a backward sector, offering little in the way of employment and income and no future prospects. The state, for its part, does not invest in agricultural technologies – either traditional or innovative – which leaves the agricultural sector in Palestine ill-equipped to deal with extreme weather conditions and diseases linked to climate change. Since Palestine has land suitable for agriculture and a rich agricultural tradition from the past, Anwar believes that it is essential to develop it in a sustainable way, rather than abandoning it or building it up – importing agricultural products and urbanising agricultural areas is not an acceptable solution and is not sustainable in the long term.

Women and agricultural work are not a culturally accepted combination in Palestine; as Anwar says, manual work that requires physical strength and working outdoors is not considered suitable for women – only certain less demanding and group work in the fields is not considered embarrassing or unsuitable for women. In her projects Anwar aims to empower women by teaching them skills and practices that can help them to be more autonomous, more active in terms of their possible agricultural self-sufficiency but also as a possible commercial activity.

Another target group of her "sustainable agricultural empowerment" projects are the inhabitants of refugee communities, a social reality that is very present in Palestine. Since 1948, a large flow of internal (and external) migration into the country has led to the creation of camps for refugees (it was a forced migration for political reasons), where they still live today in precarious conditions, territorially limited and closed off, socially labelled and discriminated against, without green areas or public places in which to live adequately. The low quality of life in these communities makes young people dream of a future elsewhere, which is why they try to leave the community and the country to study or work. However, this youth mobility does not represent a long-term drain of brain power and youth labour, as many return as a personal choice to reunite with family or because they are not allowed to stay abroad after their studies unless they have a permanent employment contract. However, in addition to family ties and attachment to their native land, young people like Anwar are motivated by the desire to contribute to improving the quality of life in the poorest and most disadvantaged areas of their country, to use the knowledge they have acquired abroad and to apply it in their country, complementing traditional agricultural practices and current specific climatic needs. It is a noble but arduous objective, also given the lack of space/land available in refugee camps and in countries with high population density.

Therefore, one of her latest projects is the idea to build small, intelligent greenhouses that can be placed on the balconies of individual apartments or on the roofs of condominiums. Anwar explains that the local population has so far been receptive to the innovations proposed to improve their daily living conditions, but it still takes time to change their mindset about the need for a sustainable urbanisation – explaining the importance of public green spaces as meeting places and sources of oxygen is not always easy when there are other existential priorities to be resolved. One of the most recent initiatives Anwar is involved in is participating is the design of the first public park in Birzeit, and in the future she sees herself working as a designer of public parks and green spaces, especially for the most vulnerable categories such as women and children, who currently don't have safe outdoor recreation or gathering areas.

Her diverse ideas of social architecture and agricultural engineering initiatives to respond to climate change in the specific social

reality in which her people find themselves, project her into a professionally engaged future in Palestine. However, the best way she can imagine to help is from the outside, by continuing to study, plan and develop her network abroad, and then bring innovative solutions and projects back to Palestine, involving experts, activists and investors from other countries.

Anwar's story weaves together ideas of sustainable development, the need for territorial identity, social architecture, climate change, the desire for development and love for one's land like the crossed threads of a precious carpet. Her story is one of indirect climatic migration, with climate change as its source of inspiration, catharsis and determination to respond. The message that will remain with me is the will to plant trees, to cultivate the land and to provide shade – for us today, but above all for us tomorrow. We appreciate private and public green spaces aesthetically, but we take them for granted. We should pause to consider their wider significance...

"How do we explain today, when we have grown up and realized that in the West Bank we treated our people like refugees? Yes, our people who were expelled from their coastal cities and villages by Israel in 1948, our people who were forced to move from one part of the homeland to the other and settled in our cities and mountainous villages, we called them refugees! We called them immigrants! Who will apologise to them? Who will apologise to us? Who can explain this great confusion? [...] How could we not ask ourselves at the time about the meaning of those words! How could adults not rebuke us for using them?"
Mourid Barghouti, I saw Ramllah

"As we reflect on the intricate web of challenges that Palestine faces – from its historical struggles to its ongoing fight against climate change – it is impossible to ignore the poignant resonance of being refugees twice. The first exodus in 1948, caused by the war, left indelible scars on the Palestinian people. Now, we stand on the precipice of another perilous migration, driven not by political conflict, but by the relentless forces of climate change. This looming crisis, with its potential to uproot lives and communities, fills us with a profound sense of fear.

In the face of this uncertain future, the words of Palestinian writers and poets offer solace and inspiration, reminding us of the enduring connection between the Palestinian people and the land they cherish. Mahmoud Darwish, the celebrated Palestinian poet, once wrote: 'We have on this earth what makes life worth living.'

In conclusion, as Palestine grapples with the double burden of historic conflict and impending climate crisis, it is crucial that the world acknowledges the fear of becoming refugees twice, an unimaginable ordeal. To honour the resilience and spirit of the Palestinian people, we must come together to combat climate change, protect the land, and support the preservation of their agricultural traditions, ensuring that the shadow of fear does not darken their future."
Anwar Samara

Golden Sky at the End of the Storm

Dino Sinanović

Case study on the effects of climate crisis from the perspective of young people
Bosnia and Herzegovina

Our story begins in Zavidovići, a town in central Bosnia and Herzegovina. The area of Zavidovići is hilly and covered with woods and forests and with beautiful landscapes that attract many tourists in all seasons. Up on the hill above Zavidovići, Enesa and Edin tried to build their life and their home. Enesa and Edin are the parents of two daughters, and with all the struggles of post-war life, they were also trying to find steady work and secure financial stability.

The war in Bosnia and Herzegovina devastated the economy and the factories, especially in towns like Zavidovići where there was one large factory and the town lived off it. Life was far from easy, steady employment was a constant challenge, and financial stability felt like an elusive dream. Still, Enesa and Edin held on to the belief that better days were ahead. Their days were simple, filled with the joys of nature and the warmth of family. They tended their garden, explored the surrounding forests, and basked in the beauty of their surroundings. Then came the year 2016, the year of the disaster…

That year, Bosnia and Herzegovina was hit by heavy and prolonged rains that lasted for three months. With the heavy rains came other problems: swollen rivers, the emergence of new streams, agricultural problems and landslides. Enesa and Edin were aware of all of the disasters that could happen, but they thought that they were safe. Nevertheless, they remained cautious.

On 12 May, the fatal night came. The once thirsty earth had become sodden, unable to absorb any more water. Against this backdrop, their world was about to change forever. The rivers swelled to alarming levels, their murky waters a harbinger of things to come. The ground became saturated with water, and the anxiety in the community grew. That night will be forever engraved in their memory.

Edin starts recalling: "That day is etched in our minds like a haunting memory. It followed two months of relentless rain that had soaked the earth to the core. Our family was struggling financially

and we could barely make ends meet." Enesa adds: "On the day of the disaster, the sky unleashed a torrential downpour. It was as if the heavens themselves were weeping for the suffering of our country. We had no idea that this deluge would lead to such a catastrophic event. Our financial situation had left us unable to make the necessary repairs to our home. Our house stood on a precarious slope and the terrain of Zavidovići was unforgiving. The combination of these factors was a recipe for disaster."

"The evening was horrible," she continues. "The rain intensified and we could hear the distant rumbling of the earth. We decided to sleep in shifts, keeping a watchful eye on the worsening weather." In the middle of the night, a sudden roar shattered the eerie silence. Edin and Enesa were jolted awake as the ground beneath them trembled and groaned. "Yes, it was a nightmarish awakening. A sudden roar shattered the silence, and our world was thrust into chaos. The ground beneath our home gave way, and we were engulfed in darkness. We scrambled to gather our daughters as our home was disintegrating around us. The mud and debris were overwhelming, but we managed to escape, clinging to each other for dear life," Edin recalls with great pain in his voice.

Panic gripped them as they realised what was happening—the earth was giving way beneath their home. Outside, the scene was one of utter devastation. The neighbours, who had also suffered, rushed to help. Enesa continues: "It was pure instinct and sheer terror. We sprinted towards our daughters, grabbed them up in our arms and fled the house. Our neighbours rushed to help us. It was a terrifying moment to see our home, the place where we had built so many memories, crumble before our eyes. The landscape had transformed into a scene of devastation and despair. We watched our house slide down the hill."

Edin adds: "In those moments, your feelings are mixed because you are happy that you have survived such a disaster, but you are also sad because you have lost your precious home and everything in it that you have worked over the years. You feel devastated, but when you look at your family and know they are safe, it's a lot easier."

But the terrain of Zavidovići had turned into a landscape of despair, and there was little anyone could do in the immediate aftermath. Enesa continues: "We were fortunate to have the support of our community but also of the state. They gave us shelter, clothes and

food and helped us navigate the difficult days that followed. With the help of non-governmental organisations, we received the materials for the house, clothes and various supplies. The city gave us the land to build a new house. It was a gesture of hope in the midst of devastation."

Rebuilding their lives after such a disaster has not been easy for Edin and Enesa. They faced many challenges, but were determined to rebuild. Edin recalls: "We saved every penny we could, received assistance from various sources, and slowly started to rebuild our home. We wanted our children to have a sense of normalcy again, a place they could call home. So, through hard work, resilience and the support of our community, we managed to build a new house. Our new home is different, but it's filled with the love and memories we brought from our old house. Zavidovići is our home, and being back here is like returning to a piece of our hearts. We've learned that home is not just a physical place; it's the love and togetherness of a family. Our daughters have grown stronger through this experience, and we hope they'll carry the lessons of resilience and community with them throughout their lives."

"We were blessed with kind-hearted neighbours," Enesa says with gratitude in her voice. In those initial hours, their support was everything, but they were also there for them during the construction of their new house. "We shared our sorrow and found strength in each other. Our new home symbolises our journey of resilience," Edin declares. "It's a place where we made new memories while cherishing the old ones."

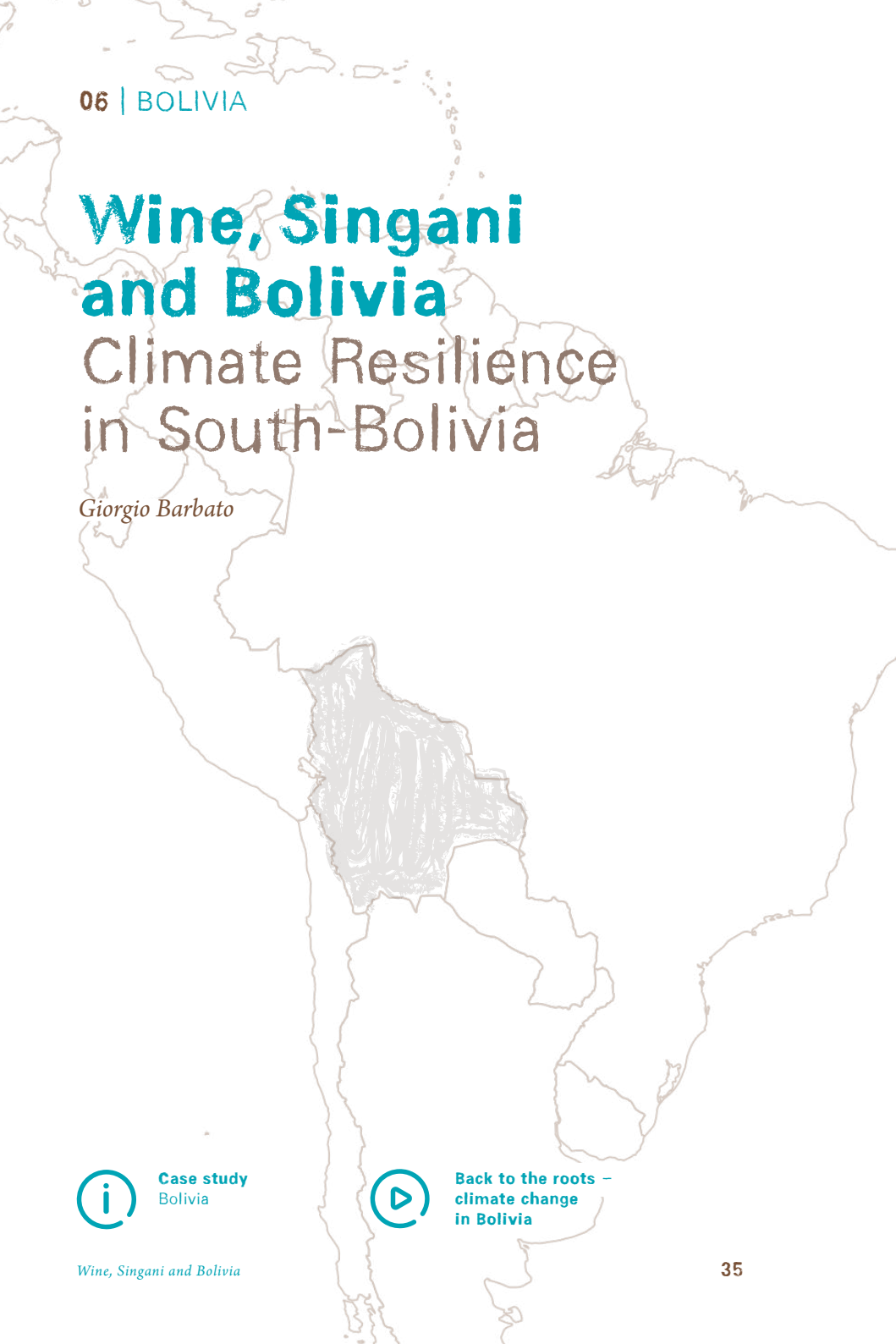
Edin and Enesa's story carries a powerful message about the delicate balance between human existence and the power of nature. "Our experience underscores the immense power of nature and the importance of treating it with respect and responsibility," emphasises Edin. "We have to realise that nature can be unforgiving when taken for granted." Enesa adds poignantly: "Our hope is that nobody has to go through what we have gone through to understand the value of our planet. Let's protect and preserve the environment now, before it's too late. Our story is a stark reminder of the fragility of life and the power of nature. We must acknowledge the impact of climate change and heed the warning signs that nature gives us." Edin agrees and continues: "Financial hardship can make us vulnerable to the forces of nature. We need to invest in resilience, both in our homes and in our communities, to be better prepared for future challenges."

"Above all, our story is a testament to the strength of the human spirit and the importance of community support," concludes Enesa. "Together, we can weather even the most devastating of storms."

Edin and Enesa's story is a testament to the resilience of the human spirit, the strength of community bonds, and the urgent need for environmental stewardship. Their journey reminds us that even in the face of nature's fury, hope can emerge and lives can be rebuilt.

Wine, Singani and Bolivia
Climate Resilience in South-Bolivia

Giorgio Barbato



Case study
Bolivia

Back to the roots – climate change in Bolivia

Our story speaks of resilience and takes place in Bolivia, specifically in the south of this fascinating country. Areas that have been characterised by the same traditional crop for decades are now changing their perspectives and facing unforeseen risks. The south of Bolivia is home to historic wine production and is one of these areas where such type of risks are increasing.

The Tarija region prides itself on its production of wine and singani (clear brandy), the best in Bolivia. Winemaking has flourished in the region since the vines were introduced in 1584 by Jesuit missionaries, who found here the best conditions in the entire country to take root and flourish.

Singani is also a protected designation of origin and belongs to the grape brandy family. It is made from the distillation of wine from the Muscat of Alexandria grape. Singani was declared a part of Bolivia's Cultural Heritage by Law 774. It is native to the valley area of the departments of Tarija and Chuquisaca (Cinti) and is the main ingredient in many traditional Bolivian cocktails, such as the Chuflay, Poncho Negro, Sucumbé and Yungueñito.

For many years, the grape was used to produce singani, which has an alcohol content of around 40%. In recent years, the care and dedication of a number of local producers has allowed them to progressively refine their production techniques, resulting in wines that have gained international recognition. There are currently around 2,000 wine producers, providing work for almost 20,000 people.

"Wines that come from such locations are called high altitude wines, i.e. wines whose characteristics are strongly influenced by the altitude at which the grapes are cultivated: greater solar radiation, which produces a thickening of the skin, and strong temperature swings between cool nights and sunny afternoons that affect the acidity and 'freshness' of the wine," writes Francesco Antonelli in *Divino Andino: Viaggi E Assaggi All'Ombra Della Cordigliera* ("Divino Andino: Travels and tastings in the shadow of the Cordillera").

The valley *par excellence* where the best Bolivian wine is produced is La Concepción, 36 kilometres south of Tarija. At an altitude of between 1800 and 2300 metres, it is home to some of the highest vineyards in the world, surpassed only by a vineyard in Tibet and a few in Argentina. In this area, as in other wine-growing regions of the world, the climate is changing, which has a direct impact on wine production, grape cultivation and the production of singani, which is beginning to suffer.

We spoke to a local farmer who is passionate about her work and loves her land. She gave us some examples of recent unusual weather phenomena that are damaging local production.

"This year was terrible. Between February and March, an unusual and late frost, together with a surprisingly large hailstorm ruined my grape harvest. The hail was of enormous dimensions, I've never seen anything like it. My farm was strongly affected and all the farmers in the area suffered enormous damage," she explains devastated.

Since the grape harvest has been damaged, the best way to be less financially affected by the loss of production is to promote and work on the singani that has also been produced in recent years, she continues: "The singani is my main income, it is of high quality and I strongly believe that it is also an interesting product that should be better promoted and sold." Worldwide, climate change is having radical consequences in terms of changing people's way of living and their choices, especially when it comes to maintaining and preserving traditional local food productions.

The migratory phenomenon in the area is not yet evident and was stronger in the past when people migrated to pre-crisis Argentina, but there is still a risk that people will begin to abandon their fields again. She contemplates aloud: "Farming in Tarija is changing. Farmers in the area have already switched to a system of cultivation from the old vines to vegetables, potatoes and other crops that can be grown all year round and produce higher yields. However, even these crops are subject to the risk of frost or the damage that can be caused by sudden giant hail storms."

Furthermore, in addition to the change in land use, the Tarija area could see an increase in internal migration if new solutions to mitigate the effects of climate change or adaptation strategies are not found in the short term, as demonstrated by a nearby case in the Chaco area, where the migration rates are very high. However, the

risk factors associated with climate change (such as water scarcity, rising temperatures, unexpected frosts), along with adaptation strategies, can generate specific forms of resilience, known as "climate resilience". These strategies, combined with a strong determination to continue traditional activities such as local farming, could lead to unexpected results in climate change adaptation.

The farmer adds: "It is not clear what will happen in Tarija in the coming years, and there is a high risk of land use change that will impoverish the traditional wine culture." The signs are certainly not encouraging, especially if one considers another environmental factor that threatens the local population: mercury contamination of the water table due to uncontrolled use in nearby mining operations. With a worry in her voice, she continues: "People are afraid to drink the water, which was unthinkable a few years ago."

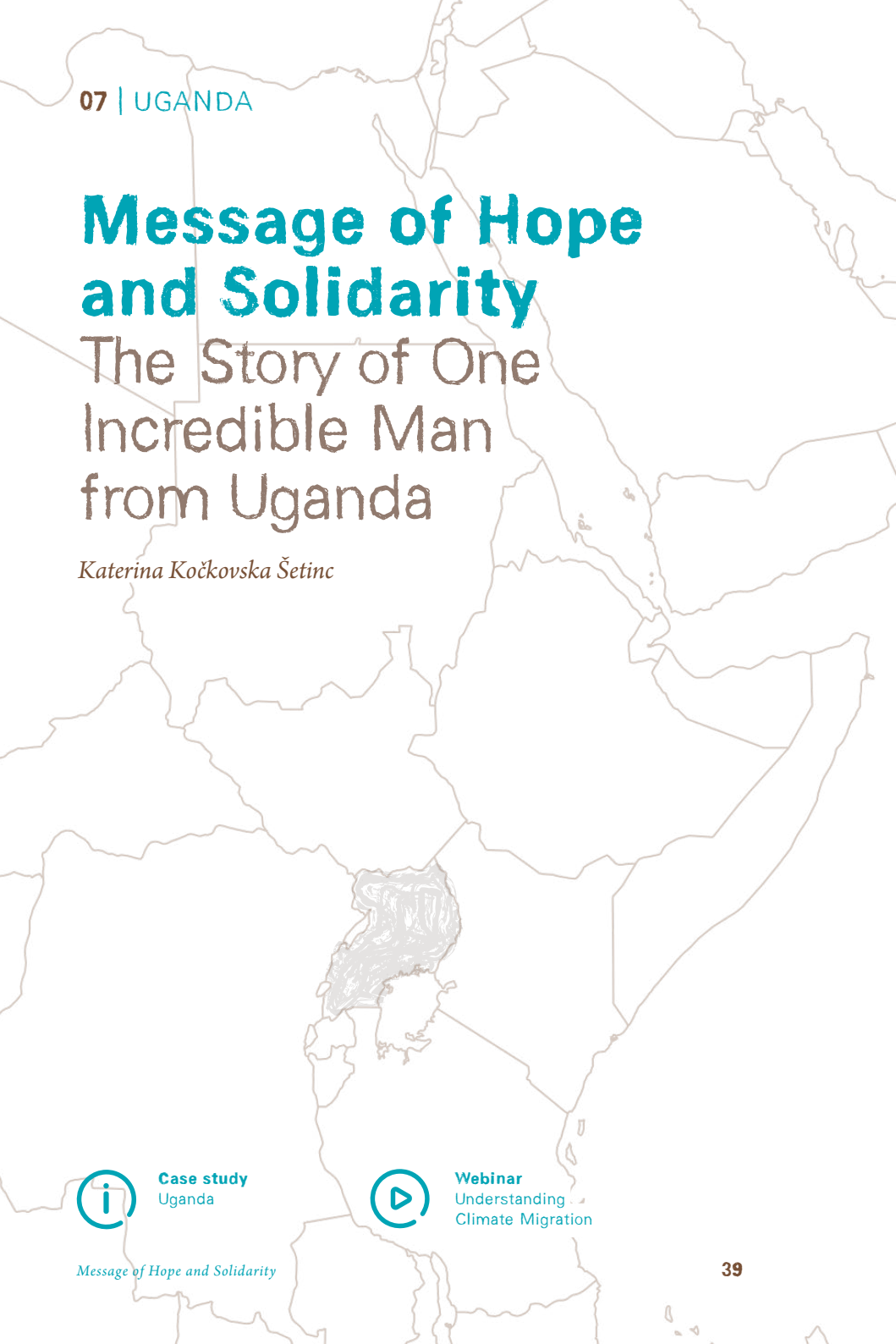
Apart from being threatened by the climate, grape production is also threatened by smuggling. In fact, smuggled Argentine wine arrives in southern Bolivia, where it is bought and sold at low prices due to currency exchange factors, damaging local Bolivian production. "The government has tried to stem the damage with limited aid, but the problem is obviously global in scale," she claims.

We wonder if migration and farm closures are a real short-term risk in this area. With her answer we begin to understand how strongly a person can be committed to her land: "I have not thought about it or planned it. In any case, I would change cultivation, but I would not move". Migration is not an option for her. Her message is clear: a person can choose to be resilient to the effects of the global warming crisis and adopt adaption strategies such as changing farming systems or cultivating methods. We sincerely hope, as she does, that she will eventually be able to sustain the farm and the production of singani that she has worked tirelessly to keep alive.

Message of Hope and Solidarity

The Story of One Incredible Man from Uganda

Katerina Kočkovska Šetinc



Case study
Uganda

Webinar
Understanding Climate Migration

"If you really think that the environment is less important than your economy, try holding your breath while you count your money."

Guy McPherson

At the beginning, I must emphasize that this is more than a story focusing on climate change. It is a life story told by a very pleasant and sincere man from Uganda who was kind enough to share with me a glimpse of his professional and personal daily routine through a series of WhatsApp conversations focusing on different aspects of his life and the impact of climate change in western Uganda has had on it.

I must admit that I didn't initially expect to have such a fruitful conversation and, without exaggeration, to develop a friendship with a person living so far away.

Mumbere works as a social worker with vulnerable populations at the international organisation Maranatha Health, an Australian and Ugandan not-for-profit organisation committed to improving health outcomes, empowering the poor and making positive, lasting change in Uganda. Their projects are based in the city of Fort Portal where Mumbere is currently working.

Unfortunately, he has also been forced to find a job that is quite distant from where he lives and only allows him to go home at weekends. During conversations he said that he was quite sad and worried that he was not able to spend more time with his pregnant wife. Another concern was the fact that the nearest hospital was 30 km away.

The floods destroyed the Kilembe Mines Hospital that was situated in Kasese region, which has not been reopened since. He said that this was quite a problem for the vulnerable population and as a result, a significant part of Kasese inhabitants were left without health support. This information is also confirmed by the official webpage of the Ugandan Parliament, which states that locals are aggrieved that the Ministry of Health, which initially supplied the hospital with essential medicines, withdrew its support after the floods and only provided funds for administration.

This is not an easy situation for Mumbere and his family at all, especially having in mind that he is the father of three underage children. The latest was born in July. In 2020, Mumbere's hometown was hit by massive flooding, when the Nyamugasani, Nyamwamba and Mubuku rivers overflowed their banks, causing massive evacuations and forced migration of the local inhabitants. The material damage was enormous and tens of thousands of people lost their homes in the floods.

Catastrophic flooding accompanied by erosion have also contributed to increased poverty, because a large part of the livestock has died in the rush of water, and considering that this is a rural area, cattle breeding was the main source of income and livelihood for many of the inhabitants.

Among them was his biological mother, who finds it difficult to survive without the products and income from livestock (mainly goats). On one occasion, he said that he grew up in a foster family due to the fact that his biological parents were too young to take care of him when he was born. He doesn't feel any resentment at being deprived of growing up with his biological parents, quite on the contrary, he shows compassion for their vulnerability and supports his mother financially and emotionally.

Mumbere added that, as a social worker, he is able to understand his parents' situation, which is certainly not uncommon in Uganda. He believes that his life situation has made him even more motivated to participate in projects that focus on health, contraception and protection against infectious diseases, or in short, to dedicate his life to helping others.

With grief in his eyes, he noted that the situation in the Kasese region is still uncertain and risky, because the locals are constantly threatened by floods, heavy rains and erosion that happens every year.

For example, in September 2022, at least 16 people died in western Uganda after heavy rains triggered a landslide in the Kasese district. According to a report by the United Nations Office for the Coordination of Humanitarian Affairs, more than 300,000 people have been affected by floods and landslides in Uganda's eastern and western regions, and an estimated 65,000 people have been displaced.

Mumbere said that it is sad to see that the locals are tired of living in such conditions, but unfortunately most of them do not have the financial means to move to another city or country where they can be spared from natural disasters.

They are grateful for the support of international organisations such as Uganda Red Cross, Karitas, Save the Children and UNICEF, but we all know that it is not sufficient for a normal life.

Many people living in the Kasese region feel desperate, isolated and forgotten by everyone, especially their government.

According to the World Bank Group Report on Uganda Climate Profile, Uganda is at risk of natural disasters. The country experiences extreme weather events that lead to mudslides, landslides and floods, particularly in the country's mountainous regions. Extreme events leading to disasters such as floods, droughts, and landslides have increased over the last 30 years. The increased intensity of heavy rainfall has led to a greater impact of floods and is causing more damage due to the expanded infrastructure, human settlement and general development of the country.

I have to admit that my knowledge of climate change is very limited, which was one of the reasons why I have decided to take part in the online course »Beyond the tales«.

I believe that the interactive model of learning by listening and writing a story of a human being personally affected by natural disasters is an excellent way to raise awareness of the dangers and consequences of climate change and to call for solidarity and joint action to combat it.

We absolutely must not turn a blind eye to the fact that more and more people will be forced to leave their homes in the future due to the severe consequences of climate change.

As a lawyer working mainly in the field of asylum and migration, I am bitterly disappointed that fleeing from devastating climate changes is not yet considered a reason for seeking international protection, and that people affected by recurrent natural disasters are therefore not entitled to be recognised as climate refugees.

Prominent research shows that there could be 1.2 billion climate refugees by 2050. According to UNHCR, the UN refugee agency, an average of 21.5 million people were forcibly displaced by weather-related events – such as floods, storms, wildfires and extreme temperatures – each year between 2008 and 2016.

In March 2018, the UN Human Rights Council found that many climate refugees do not fit the definition of "refugees", calling them "the world's forgotten victims". This means that they are not entitled to legal protection of their human rights, which could protect

them from threats and dangers such as deportation and detention in case they are considered illegal migrants by the authorities.

The recent floods in Slovenia and other weather disasters in Europe have shown us that none of us is immune and safe in the face of the destructive power of nature and that we are all part of the same world.

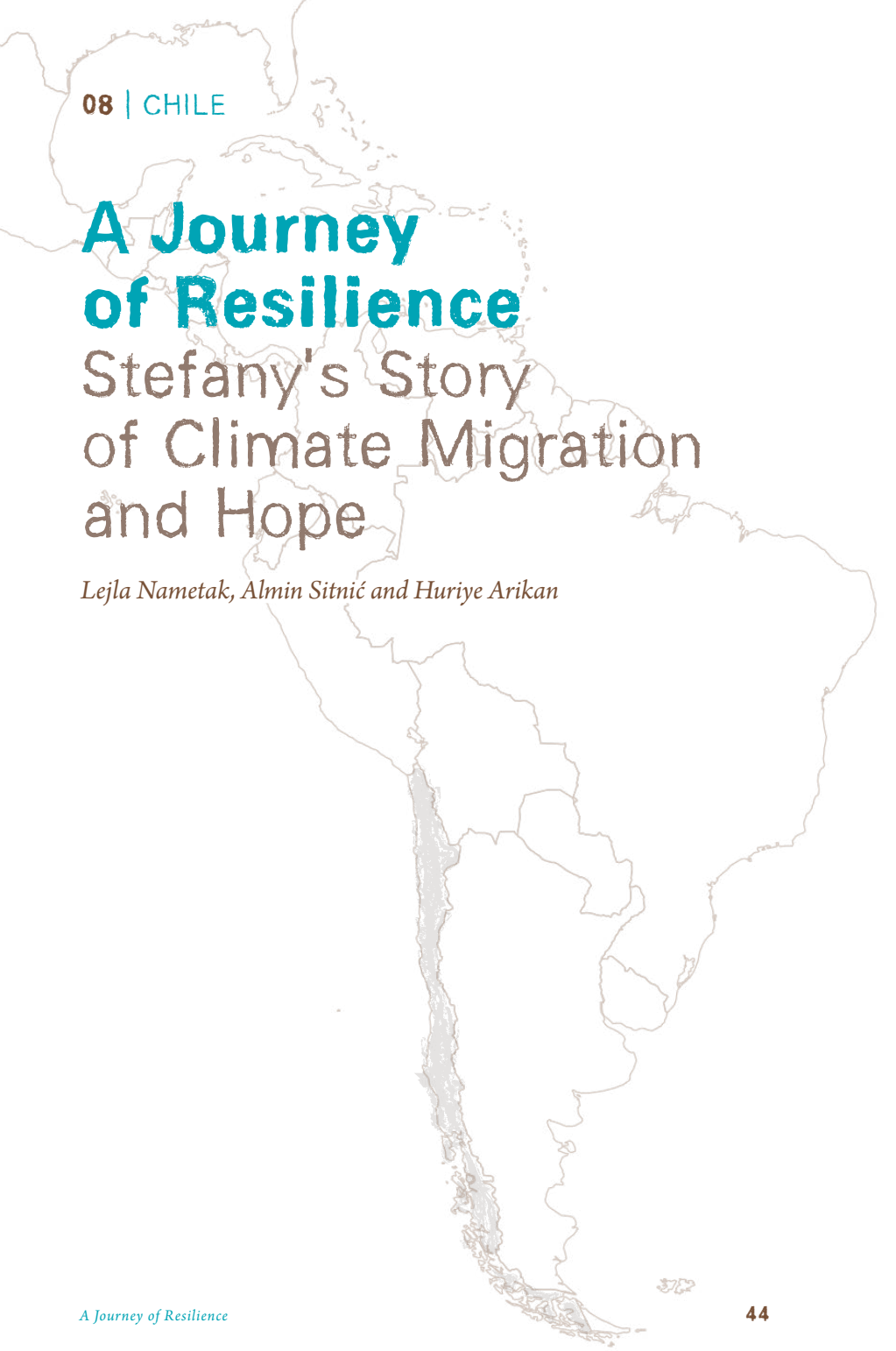
Mumbere sincerely hopes that with joint efforts we can help our planet to recover from pollution and irresponsible and reckless human behaviour.

Let's show him that he is not alone!

A Journey of Resilience

Stefany's Story of Climate Migration and Hope

Lejla Nametak, Almin Sitnić and Huriye Arikan



In a world where the effects of climate change are becoming increasingly evident, Stefany Álvarez found herself caught between two worlds.

A passionate researcher and advocate for environmental justice, Stefany embarked on a journey of self-discovery and academic knowledge to understand the relevance of Chile in the face of climate change. Born and raised in the beautiful city of Temuco, located in the heart of Chile's La Araucanía region, Stefany's life was intimately intertwined with the indescribably beautiful nature that surrounded her. As she grew up, she began to comprehend the deep connection between her community and the land they called home.

Before migrating to Spain, Stefany's life in Chile was shaped by the delicate balance between nature and the challenges imposed by climate change. She witnessed the consequences of the environmental transformations caused by industries such as the extraction of natural resources, including hydroelectric power plants, and pine and eucalyptus tree plantations. The consequences of industrial neoliberalism disrupted the social fabric and affected the livelihoods of families in her region. Stefany felt a profound responsibility to understand and address these issues, not only for herself but also for her local community.

As she pursued her academic career, studying geography and women's, gender, and citizenship studies, Stefany gained a broader perspective on the impacts of climate change. She explains how Chile has been deeply affected by climate change. She points out that climate migration has become an urgent problem, with

communities uprooted and forced to seek new homes due to environmental disruptions caused by industrial impacts in southern Chile. The effects of climate change and intensive extractive industries were evident.

In Chile, the effects of climate change have manifested themselves in various ways, exacerbating social and economic inequalities. Rural communities, especially those dependent on subsistence agriculture, were most affected. Changes in rainfall patterns, droughts and extreme weather events posed significant threat to their livelihoods, forcing them to migrate in search of better opportunities and stability. Unable to sustain their crops and livestock, families were forced to abandon their ancestral lands and migrate to urban areas in search of alternative means of survival. The abrupt transition from rural to urban life brought numerous difficulties. Many struggled to find adequate housing and secure employment and integrate into unfamiliar urban environments. Discrimination and lack of support further exacerbated their hardships, and the impact of climate migration extended beyond individuals and communities. Urban centres, ill-equipped to handle the influx of climate refugees, faced strained resources and growing social tensions. The burden fell disproportionately on marginalised communities already struggling with their own socio-economic challenges.

Stefany recognises that addressing climate migration requires a comprehensive approach and an interpretation that goes beyond what has been established by international organisations. It involves implementing policies and strategies that prioritise the needs of climate refugees, ensuring their inclusion and access to essential services, education and healthcare. She advocates for increased support and resources from both local and national governments to facilitate the integration and well-being of climate refugees. Often, they have different ways of interpreting the world compared to institutional strategies, and dialogue becomes the most important tool for understanding. This would mean investing in sustainable agricultural practices, promoting alternative livelihoods, and providing resources for education and awareness about climate change that are contextually relevant and tailored to local contexts. Listening to local communities so that industries are held accountable for the environmental changes they cause can help reduce migration and preserve the cultural heritage of affected populations.

Stefany's trajectory as a researcher and local activist took on new dimensions as she delved into the complex realities of climate migration in southern Chile. She was determined to amplify the voices of those affected and work towards a future where communities can thrive amidst environmental uncertainties. Through her research, activism, and collaboration with grassroots movements, Stefany sought to catalyse positive change and create a more just and sustainable society for the inhabitants of the south. She recognised that indigenous communities, particularly the Mapuche people, were bearing a significant burden in the face of environmental challenges and migration patterns. The construction of a hydroelectric power plant near Lake Panguipulli has had a profound impact on the lives of Mapuche communities, altering the natural course of their sacred river and jeopardizing their subsistence crops. The loss of access to water and the disappearance of medicinal plants created a health crisis, further exacerbated by the remoteness of healthcare centres.

Throughout her studies, Stefany came to appreciate the vital role of women in her community. Historically, it has been women who have played a crucial role in recognising and addressing environmental variations caused by climate change. They have been at the forefront, alerting their communities and preserving ancestral traditions through creative practices such as pottery, weaving and silversmithing. Their presence in various spaces embodies the wisdom and resilience of their communities. One example is Anita Epulef from the town of Curarrehue, who teaches the importance of healthy and seasonal eating through gastronomic preservation. In the academic field, the literature of Alicia Rain, Karla Nahuelpan and Viviana Huiliñir inspires Stefany to follow in their footsteps.

Stefany sees climate anxiety as one of the most relevant mental and emotional burdens across generations. The location of Chile and its environmental characteristics have been evident in recent floods, landslides and other natural disasters in her country. Her concern goes beyond the immediate damage and numbers. She empathises with the disrupted and transformed lives of individuals and families, particularly those who are less privileged and have fewer resources to recover. With her experience and knowledge, Stefany has important recommendations and messages to share with others. She emphasises the need to recognise that climate change is not only a consequence of natural forces, but especially a product

of intensive resource extraction for human benefit. She advocates a shift in perspective from an anthropocentric view toward a more holistic understanding of the interconnectedness of all beings and the environment. Stefany urges people to take responsibility for their actions, to reduce, reuse, and recycle, and to recognise that Earth is our only home.

As a long-time political activist, Stefany understands the need for dialogue and collaboration. She recognises the importance of visibility and amplifying the voices of indigenous peoples, especially the Mapuche, in addressing the challenges posed by climate change. Through her research and activism, Stefany seeks to contribute to a more equitable and sustainable world where the wisdom and resilience of communities, especially women, are valued and empowered. In her quest for knowledge and justice, Stefany embodies the spirit of resilience and determination. She seeks to bridge the gap between academic research and grassroots movements, combining her academic expertise with the stories and experiences of those most affected by territorial transformations and climate change, particularly women.

Upon her migration to Spain, Stefany faced new challenges and opportunities. She observed the environmental practices and attitudes in her new environment, appreciating them and questioning them at the same time. The excessive use of plastic packaging caught her attention, and she questioned the implications of such practices. However, she also witnessed the limited efforts towards sustainability and recycling in relation to the amount of waste generated.

These efforts were often overshadowed by the dominant influence of perspectives centred on the Western world. When she moved to Spain, Stefany faced the complexities of bureaucracy and questioned the implications. She struggled with the consequences of being classified as a "non-EU resident". Despite these obstacles, Stefany remains committed to her studies and to raising awareness about the impacts of climate change and socio-natural disasters on women in southern Chile.

Stefany's journey continues, driven by a profound commitment to environmental justice and a deep love for her homeland and its people.

Vita
Piran of the Past and Future

Špela Pahor

Case study on the effects of climate crisis from the perspective of young people
Slovenia

She came with her dad to visit her *nanna* in Piran. It's a warm summer day and in the afternoon they go *to the pebbles*, as we call the beach by the Tartini Theatre. I watch Vita running excitedly from the shore to the sea. She picks up stones in a small tube, shakes them into the sea, catches the water and pours it into the hole she has made on the shore. Whatever is she doing? A small pool? Or is she simply enjoying the exercise and the waves lapping at her feet. "Fish, look at the fish!" she cries, turning to her father, who is sitting on the shore watching her. Her eyes are as blue as the blue sky above us, her curly hair the colour of the sun, she is as free as a bird in the sky, her arms stretching from east to west, like a rainbow. "You will have to guard her," I say, and it makes my heart ache to think of what they do to little girls today. And to little boys. All for money.

On my way home, I meet a classmate. "Shall we go for a coffee?" And we're sitting in the shade outside the café, deep in conversation. "Look how many cars there are in Piran," she says. "But once upon a time, all the streets were full of children. Today my grandchildren have nowhere to play. There are cars everywhere, and they sneak in through the narrowest alleys." "It's true", I say. "When we were kids, all of Piran was ours. The coast, the streets, the squares, the meadows by the church, by the walls, in Fiesa and on the hill. We could be heard everywhere. We played "Indians and Cowboys", "Partisans and Germans" and a whole bunch of other games. We climbed the rocks on Punta, put worms on hooks and fished. Summers were hot and we swam all day long. In autumn we started school, in winter we huddled by the stove, in spring we took off our pantyhose and put on

stockings." "Yes, that's right, you said it," she nods. "Nowadays, there are no seasons at all, just winter and summer," he adds. "Remember the floods?" "Of course. You could drive a *sandolino* through Tartini Square, the water flooded the pastry shop on Punta, the cakes were floating down the shore. They put floorboards on the flooded streets so that we could get to school. Our teacher got out of the car, took off his shoes and socks, rolled up his trousers, picked up his bag and came into the classroom." We laugh. I don't know whether we are happy because of the memories or because we have met after a long time. At this moment, we are like we were decades ago, when we shared the school desk and all the secrets that belong to children. "Remember how we used to cheat on tests? And if you didn't have homework, you could quickly copy it from someone else during the break." "Yes, and if someone stayed home sick, we brought them our notebooks so they could copy the new material and not fall behind." "But nowadays, children are making money doing this. Nobody wants to lend a notebook for free anymore." "It's all about money." "We used to get awards and praise at the end of the school year. For excellence, for good behaviour, for camaraderie, for helping each other..." As evening approaches, we hear the clock in the bell tower strike seven. "Oh, I have to go home," she says, searching her bag and pockets for her keys. "I hope I haven't lost them somewhere," she says, scared. "Sometimes we didn't even lock the door, remember? People were honest and we felt safe. You could leave your shopping bag, your school bag, anything outside the door and it was waiting for you. And we never heard of children being stolen." She looks at me worried and sort of sad. We hug each other goodbye. "We have to organise our class reunion," we say almost at the same time. Then we go our separate ways.

It's not just nostalgia for the good old days when we were young. A lot has changed in this town. Only the houses have stayed where they were. They say that Piran is a pearl. It is true. From a distance, it really looks like a fairy tale. The white rocks line its shore like lace, the palaces by the square look luxurious, the houses look rich. But wander into the dark streets where the sun never shines, step into a house, and you will see cracked walls, rickety stairs that look like they are about to collapse. Many people have a hard life and do not benefit at all from mass tourism, apart from the sleepless nights when they cannot close their eyes because of the unbearable

noise and the deafening music that shakes the air and the houses. Fishermen, who were once numerous, can now be counted on one hand. Instead of their wooden boats and fishing nets, the sea has been taken over by sailing boats, yachts, giant cruise ships. The sight of the sea today is not romantic at all. In fact, sometimes it is so horrifying that it gives you the creeps. It's all about money.

There are no more people either, except in the summer when there are too many. Many have moved away, and new people are arriving. And leaving, too. For the better. Foreigners are buying houses. "In our street there are Russians on one side, Americans on the other." How do they go along? Do they say hello when they meet? Are they able to overcome their prejudices, to go beyond their political convictions, their national pride, to forge friendships or at least to tolerate each other? Many in Piran buy a property only to rent it out. To tourists or to locals. The money is good. It's all about money. Apparently, the only value today is money. New houses, even bigger than in the past, are growing on the hill. "Single-family house", read the sign next to the house they were building, which could accommodate at least ten more families. "Now the owner of this house wants to take over the hill, all the way to the road. He doesn't care that the locals have gardens here. And the municipality does nothing to protect us," people say. "What is the point of monument protection anyway?" someone is heard to say. "But we shouldn't have allowed it! It doesn't belong here. In a listed town like Piran." Apparently, some people are driven by greed. Greed to have, to have more, to have money to buy, to accumulate wealth. Why does no one strive to share love?

When I was little, we used to go to my uncle's place in the Karst. He had a farm and there was a lot of work in the summer. We children helped to rake hay and animal bedding, to take the cows out, to harvest potatoes. When we sat at the table in the evening, I would listen to what the adults were saying. "We don't have enough crops," said my uncle. "I'll buy some fertiliser and fertilise the fields. At least that way we'll have some potatoes left to sell to pay the bills." I was just a child, I knew nothing about chemistry, but I was shocked. Artificial fertilisers? "Noooo, not that!" I cried in fear. I felt sorry for the soil. They'll destroy everything, I thought. But they just laughed at me. Who listens to a little child? She doesn't know what she's talking about. So they silenced me. For a long, long time.

"Money rules of the world," my mother used to say. And each time she would sigh sadly, helplessly. Today, it is the same all over the world. Some say there are too many people on earth. I think we are just too greedy. I think that God and the earth love all their children and that there is enough food for everyone. But we push the limits when we want more and more.

And people are becoming increasingly unhappy. Half the world is on antidepressants. Even the water in cities is polluted with them. "The more we have, the more unhappy and sad we are," says a friend of mine. She continues: "My doctor asked me why I was no longer taking the pills and where I had put them. I told him I had thrown them in the rubbish. He grabbed his head. "But medicines are expensive. Why didn't you bring them to me? I would have had them for other patients. Why in the rubbish? Has it not occurred to you that you are polluting nature?" I was angry. As if I wasn't nature too! What else is my body but nature!? But I can be polluted? All this goes against common sense and only serves the pharmaceutical industry. Money, money, money. What are we?" I almost have to agree with her. "Some people want too much! They dream of living on the moon, of going to space, and yet here they can't take care of their poor neighbour. Let them go to the moon and stay there, and leave us to live out our earthly ages in peace and style."

At night, I have a nightmare. *The earth can take it no more. The earth trembles with anger. The earth has become like a dragon, spewing tongues of fire, pouring lava down the hillsides, smoke and ash from volcanoes blown by the wind across the continents, so that the sky darkens and planes cannot take off or land because of poor visibility. The sky flashes with anger. It sends lightning and rain down on the earth. Rivers burst their banks, destroying fields and sweeping away houses. The wind whips the sea wildly, the waves rise over the ships and swallow up great cities, the stones at the bottom rattle menacingly against the shore, and fall with fierce force on houses, on men, on children. Hurricane winds break trees and blows away roofs, sending them flaying through the air like paper kites.*

Vita is now in school. A new boy has arrived in her class. His name is Ali and he comes from the African continent. He does not speak our language well yet. He and Vita sit at the same desk, and Vita helps him when he doesn't understand something. They live in the same street, so they walk home together after school. Vita tells

his mum and dad about him. “It will be my birthday soon,” she says, “and I would like to invite Ali to the party.”

When she falls asleep at night, her parents sit at the table and talk. “I don't want her to hang out with Ali,” says Vita's mother. “Come on, come on,” says her husband. “We all have red blood running through our veins. You see how much she loves him. We can't deny her that.” “I don't like them,” his wife remains stubborn. “Are you saying you don't trust them because they're strangers?” He gently puts his hand in hers. “What if we invited his parents? That way we'll get to know Ali's family. We can ask them where they come from, why they came, how they live.” Mum thinks quietly for a while, then sighs resignedly. “You're right. I think it will be good for Vita, too. And I'll be less scared.”

And the birthday came. Visitors knocked at the door. Luckily, Vita's family lives in a small house with a small garden. The adults sit around the wooden garden table, while the children quickly run under the tree and start playing. Vita's mum serves coffee and juice, and dad plays the guitar. “There will be time for cake,” they say, almost in unison. Slowly, the guests relax and begin to talk. So far, Ali's parents had only been seen in the school corridors. “We have felt climate change perhaps even more than you have. Every year, the droughts get worse and longer. You have no idea what we went through on the way here. I'll never forget the sight of dry trees and dead animals... Even now, sometimes I scream in my dreams in terror.”

“All this will come to us,” says Vita's dad to his wife. The guests have left and Vita is already asleep. Their eyes meet. They are worried. “Where are we going to go?” they wonder silently to themselves. What will happen to Vita?

Vita now knows that her name means Life. She is happy that Ali came to her birthday party. Before she fell asleep, her mother read her a story about an island in the middle of the ocean where there are many, many seagulls, a few mice, and very, very few people. There are no cars, no airport, and the only way to get to the island is by boat, which takes seven long days.

At night, she dreams of this island.

I dreamt about this island that night too. I'm going to move there, I tell myself. But what if it is such a small island and I want to take Vita with me, her mother and stepfather, her aunts and uncles, cousins, all my friends and all the people I love, and all the children

I have met in my life. How am I going to do that? Maybe I can do something for the earth right now, here in Piran, so that in a few years it will not be taken by the sea? Will you join me? What if we all worshipped Life instead of money? "What you keep for yourself is lost forever," my mother used to say. And she also said, "There is no more love in the world, that's why everything is wrong." And what if we were to turn our sails in the other direction, in the direction of life and love? Maybe it is not too late. If we do not care about ourselves, let us at least take care of our children. After all, we did not bring them into the world to die tomorrow.

***

One morning, Vita wakes up and behold, the house where the *gramps* and *nanna* live is surrounded by the sea. Seagulls are screeching in the sky and fishermen sometimes catch in their nets some memories of the place as it used to be: albums with old family photos, coffee cups, a milk pot, a tablecloth, a rag doll in an old-fashioned dress, a wooden car... What else can the seabed hide, they wonder. And as if from the depths of the sea we hear voices whispering with the waves: you have buried us... your greed has buried us... we are embraced by nature and we will forever be its voice.

Climate Change Seen from a Distance

Eloïsa's Story

Mariana Pfenniger

Eloïsa is from the Philippines, a country famous for its islands and its typhoons, and therefore prone to extreme weather conditions that are symptoms of climate change. She currently lives in France after completing her Master's degree in International and European Studies with a thesis on the green economy. Although her personal story is not directly related to climate migration, she is well aware of the devastating humanitarian impacts of climate disasters and is interested in expressing a story that is close to her heart. Her home country is located in a zone that is prone to all kinds of natural calamities and is experiencing a lot of turmoil, mainly due to the climate crisis, which is creating a complex situation that troubles the local population living in coastal areas, including her relatives.

Eloïsa tells us about a milestone that has affected her deeply, so much so that she had moments of great emotion during the interview. "It's not a subject I've talked about a lot, and talking about it makes me relive moments of great concern and anguish," she said.

The story goes back to 2013. Eloïsa was already living in France when Typhoon Haiyan hit her home country. Typhoons are a well-known phenomenon for Filipinos, with around twenty or fewer typhoons in a year bringing varying wind speeds. What happened in 2013, however, broke all previous records with a highly unusual strength for a tropical storm. Typhoon Haiyan reached a maximum of level 8 on the Dvorak scale. Combined with torrential rains, the storm surge created massive waves, accompanied by violent winds; almost as if hit by a thunderstruck, the islanders drowned in this unprecedented experience.

Normal typhoons until 2013 typically recorded wind speeds between 80 and 130 km/h. According to data from the Joint Typhoon Warning Center, Haiyan reached its peak intensity with winds of around 315 km/h, which gives us an idea of the scale of destruction it caused. This was accompanied by heavy rainfall and waves of disproportionate height.

Eloïsa has cousins who live on the coast of the country. The traditional dwellings are light, made of bamboo and very open to allow for natural air conditioning. Her cousins had fishing ponds and family land with agricultural crops. Typhoon Haiyan wiped out everything. Her cousins lost their fishing pond and agricultural crops, their source of family livelihood. They also lost their house and everything they owned, as did many other coastal residents. In this time of crisis, Eloïsa recalls that her cousins were grateful to be alive, but the losses were enormous and immeasurable.

Although a disaster zone was declared and there was an international response in the form of humanitarian aid, this did not solve the immediate or fundamental problem: the aid had many problems reaching all those affected and could not repair the damage that affected people's livelihoods, nor the investments they had to make in order to be productive. All of this contributed to constant poverty and increasing unemployment. It also did not heal the psychological damage suffered by the victims. Eloïsa tells us how her family still lives in fear every time the rains or winds intensify, reminding them of the tragedy of 2013.

Typhoon Haiyan left behind significant material damage (to public infrastructure, homes, roads, etc.), as well as environmental damage caused by oil spills, among others. In addition to more than 6,000 deaths, it caused a humanitarian crisis, with thousands of people displaced from the most affected areas. Internal migration to less affected areas was massive.

Eloïsa's family did not migrate. They did not want to do so because the land they live on and depend on for their livelihoods belongs to the family. To migrate would mean that they would have to rent land to generate income or look for other sources of livelihood, as resources are severely depleted. However, this milestone generated by Typhoon Haiyan marks a "before and after". There is now a greater local awareness of the climate crisis and people can see how the climate has changed beyond these destructive events, causing longer rainy seasons that affect different crops.

Eloïsa has not experienced climate-related migration, but she has experienced the effects of the crisis in an episode as traumatic for her family as the one she told us about. Her family is lucky enough to be alive and to be able to remain on their land, something not everyone can say. Eloïsa wonders what it will take for climate migration to be considered a reason for obtaining a visa in certain countries. She hopes that awareness of the climate crisis and its effects will gradually become massive, and that action will be taken not only on the causes of the climate crisis in the hope of reducing or reversing it, but also at the political level to recognise it as a humanitarian cause for migration.

Eloïsa is convinced that resilience is a defensive attitude of people who are constantly battered by climate catastrophes like those in the Philippines, caught in the nature's ring of fire. Yet, she cannot help but wonder: should we just let people lose their lives, like sacrificial lambs, every time a typhoon strikes, until we find a tangible solution to this alarming humanitarian dilemma linked to the climate change crisis?

Harvest, Home and Hope Lost in the Landslide

Sonja Graf

Case study
Uganda

Webinar
Understanding
Climate Migration

Doreen is sitting in the office of the youth centre in Kasese where she works. She seems to be happy to tell her family´s story.

"This time it didn't come unexpectedly. Following the heavy downpour in the past days since 3 September, official warnings had become louder and more urgent. On the night of 6–7 September 2021, the horror came to the village of my uncle, Mr. Masereka Yona. Those who possessed a battery-powered radio were instructed to leave their houses and go to the nearby village school. At the same time, the announcement was also spread by megaphone, the usual way of spreading news in the absence of electricity. Since 2013, the river Nyamwamba had regularly overflowed its banks after daylong, intensive rainfall. The surrounding rivers flooded our country, leading to loss of property, casualties, deaths," says Doreen.

"It was always the same: the flush of the water increased in speed, turning the river into an uncontrollable flood that carried with it rocks of all sizes and grew into an avalanche of destruction. During the rainy seasons, from March to May and from July to October, the river had to be watched closely: as soon as it rose, such a landslide could be expected at any time. Repeatedly, harvests and houses were wiped out by this spectacle," she continues.

On that September night in 2021, Doreen's uncle's family were already fast asleep in their house on the mountain slope near the river. It had been raining incessantly for days, the deadly landslide was to be expected – and people had been warned. However, many refused to leave their houses. "It's my ancestors' home," says Doreen's aunt Masika Sadrace.

But suddenly, around 11 pm, they had to flee: "They were awakened by a noise like that of rocks colliding in rushing water and people screaming. The noise grew louder, and screaming and running could be heard in the thick darkness in the Karusandara and Kanyengeya villages. Drums sounded a public warning of the danger, and loudspeakers called on people to gather at the primary school in the small mountain village. The gardens and pastures were already flooded. My uncle ran to the school with his wife and two sons, aged 14 and 16. They spent the night there together with hundreds of others. "They had not been able to take anything with them", Doreen regrets.

Little did they know at the time that they were saying goodbye for a very long time, if not forever.

Her niece Uwera Doreen, who told us this story, also lives in Kasese, a mountainous district in the western part of Uganda. She has been lucky – her parents had good jobs, working at the Hiima cement factory in Kasese town, so they could afford a good education for their daughter. Doreen was able to study environmental science at the nearby city of Fort Portal and has a Bachelor's degree, which has enabled her to get a good job. She works in the local government's Department of Natural Resources and Conservation. In her free time, she explains, she has taken on a volunteer job: "I am a training officer who works with the local government to bring young people together and help them improve in the fields of education and health. We train them in vocational skills such as hairdressing, jewellery making and other crafts in order to improve their job prospects. They also get counselling on training and applying for jobs. But our principal aim is to keep them from turning to drugs and crime. It´s not just about the skills, it´s an important side goal to keep them busy, give them a sense of being in a community," she says. "Non-governmental organisations fund these activities through a grant. My cousins Muhindo Luis and Bwambale Yoson also had to leave their homes head over heels on that ominous September night, together with their parents. They are two of the youngsters looked after by Kasese Youth Link Development, the organisation I work for."

The whole family now lives in a refugee camp set up by the UN at the foot of the mountain in Muhokya where internally displaced persons who had to leave their homes due to landslides or floods can find shelter.

The day after the catastrophe, help was on the way. "In the morning of that September night, the Red Cross looked for people who were missing and brought the injured down from the mountain. In all, there were about 300 people who had lost everything in the landslide. They waited in the camp until November, when they were allowed to return to their village. There was little left. Their houses had been washed down the hill or destroyed on the spot, the crops were flooded or covered in mud, flattened by the water and the rocks that came with it. Those who still wanted to return to their homes permanently were kept from doing so, because it was still dangerous. Those who had alternatives relocated, others collected what was left, and life went on in the camp", says Doreen. "My uncle used to work as a primary school teacher in a public school. When he retired, he set up a small retail trading business in the village as the state pension is very small and can´t support the whole family."

But now the village is deserted. Access is still forbidden by the local government for security reasons. Kasese is a vulnerable area, with severely deforested steep slopes and rivers coming down the mountains. As the central part of Uganda lies on the Equator, there are two rainy seasons, one from August to October the other one from March to May. Rainfall is becoming heavier and longer each year.

The climate is changing, with rising temperatures, and longer and more torrential rains, causing frequent landslides and floods that damage and wash away crops and houses. Climate change is hitting the country hard.

More than 80 % of Ugandans depend on farming for their livelihoods. As the population continues to grow, more and more land is needed for crops. Inexpert farming leads to soil degradation. Besides beans and sweet potatoes, the main crop in the area is bananas, on which people depend for their income. But banana crops are badly affected by the banana weevil borer that damages and eventually destroys the banana palm. However, most people are too poor to buy pesticides.

Banana plants are also sensitive to temperature. With the constant increase of temperatures due to climate change, the area no longer seems to be suitable for bananas. Highland banana plants reduce soil erosion on steep slopes and are an important source of mulch that maintains soil fertility. But the replacement of bananas with annual crops is leading to frequent opening of the land, accelerating soil erosion.

Moreover, farmers are growing more and more dependent on hybrid seeds. They receive them from the government, but the cost of pesticides is high. "If you don´t use them, you don´t get any harvest," Doreen explains. Neither can they do without solar-powered water pumps. "We need irrigation and resistant plants," says Doreen.

Originally, the mountains of Kasese were covered by forests which are known to be vital for storing CO_2. Their protection and continual reforestation are indispensable in the war against climate change. "But large areas are being cleared every day," Doreen complains. "Now there are attempts to restore the ecological systems uphill, but it takes a long time." All this leads to food insecurity.

Another problem is the internal structure of the country and its traditions. Forced marriages are common. Officially, marriage in Uganda is only legal from the age of 18, but no plaintiff, no judge… "Unwanted pregnancies, sometimes as early as at the age of 12, are common here. The border with Congo and the ongoing civil war create further insecurity and outbreaks of diseases such as Ebola. The crime rate is high, which doesn't help to stabilise the region," says Doreen.

In fact, Uganda is rich in minerals and biodiversity: significant oil and gas deposits were discovered in recent years, and cobalt and copper are abundant. Despite this, the country remains one of the poorest in the world, with a per capita GDP of just over US$1,000.

One of the main problems facing young people living in the Kasese region is illiteracy, which is the result of dropping out of school too early. "There is free public education, but families have to pay for school materials such as books, notebooks and pens, which most people simply can't afford. Schools are far apart, and without any proper roads in the mountainous region, there is no public transport or school bus to get them to school. Where possible, people use motorcycles to get around," Doreen explains. "But the job opportunities of those who make it through high school are also limited in our region. High school doesn´t give you any practical skills."

In search of work, many youngsters leave the poor living conditions of their family farms for those in towns and cities. But more than 50% of Uganda's population is under age, and their numbers are steadily increasing. So what awaits most of them in the urban centres is a life in the slums rather than economic success. "Rising migration numbers here in Africa are definitely a consequence of

climate change," says Claire Burger, biologist and national head of ZOA Uganda.

Doreen continues: "After the landslide, both my cousins had to leave school to help support the family. In Uganda, primary education is free, but as everyone has to buy their own materials and there was no money for that, their school careers ended. As everywhere in the world, it is particularly difficult for school dropouts to make a living. Now they are doing odd jobs on construction sites or on farms, hoping every day that someone will need their help and reward them with a little money to buy food for their families. They have lost hope," Doreen laments. "They feel there is no future for them. They don´t see a way out of the camp. Their greatest wish is to return to their village."

But as for now, there is little hope of that happening.

"The government is trying to relocate the victims of the landslide on government land in the lowlands and expand Kibale National Park – one of the remarkable 10 national parks in Uganda, located near the town of Fort Portal – into the landslide area. It is also reforesting the slopes and rebuilding river banks to restore the ecological system uphill, and trying to resettle people downhill to reduce human impact in the endangered area. There are also plans to compensate them for the losses they have suffered uphill, but to move into a new house, the land must first be bought. The soil is fertile, but you need money to buy land elsewhere, closer to the foot of the mountain," says Doreen. "What refugee can afford that?"

Yes, money is important, especially if when it is used by governments on the receiving end to make their economies more sustainable and ultimately empower their people to help themselves. The efforts of the Ugandan government that Doreen talked about seem to point in that direction. There are external funds available to implement these programmes, as well as to build more dams along the rivers, especially where the rivers meet, in order to reduce the volume of water running downhill, slow it down and create reservoirs for the dry season. But all this will take time. A lot of time.

"We are asking the industrial nations to take responsibility… After all, they have produced the bulk of the greenhouse gases that are causing climate change here in Africa," says Lawrence Aribo, a Ugandan politician and environmental economist.

The Key to the Future

Mersiha Čomor

Case study
Bolivia

Back to the roots – climate change in Bolivia

Our storyteller is a young woman from Bolivia. She is actively engaged in environmental activities and currently works with children as an educator and pedagogue. She is involved in drama groups and helps children with their schoolwork. She has also worked with young people and children in the environmental department, volunteering in the community to clean up rivers.

I wondered whether she had always lived in Bolivia or if she had moved somewhere else. Her response was that she has always lived in Bolivia. Her attachment to the country is partly due to her grandparents. She grew up in the countryside, and this upbringing nurtured her deep love of nature.

I asked her about the climate change in La Paz, Bolivia, and its significant impact on the population. She acknowledged that climate change had an impact on her region as well. The area where she lives, in the mountains, experiences cold weather. Rainfall is abundant and there are distinct rainy seasons. However, these seasons have undergone changes. Previously occurring at the beginning of the year, the rainy season now lasts longer. The water is sourced from dams that are filled during the rainy period. However, during the dry season, there is a shortage of water due to lack of rainfall. These weather fluctuations have adverse effects on agriculture. For instance, potatoes cannot grow due to lack of water. The city relies heavily on water sources such as Lake Poopó, which has dried up. The exploitation of resources such as gold and silver has further compromised the quality of the water, making it unfit for consumption. This water problem affects daily life, particularly in the more remote areas far from the city center. Food prices fluctuate, affecting the local economy. Food often has to be imported from places like Peru or other countries.

Delving into the issues of water, food, and the lives of people dependent on agriculture, I asked her about the impact on people's lives and whether they are forced to move because if this. She

explained that most people initially seek assistance from the state or municipality, but a significant number stay and continue farming in the same location. Although some are still farming in the hope that conditions will improve, the reality remains challenging. Older members of the community often remain, as they have no other options and continue in their familiar ways.

When asked if this problem affects men and women differently, she emphasised that both genders are similarly affected, as both men and women need water and food for their daily sustenance. In light of her response, I wondered about possible gender differences related to migration. She said that a greater proportion of men tend to leave the country. However, she noticed that it is often whole families rather than individuals who migrate.

Continuing the topic of migration, I asked whether she knew anyone, particularly family members, who had emigrated from Bolivia. Unfortunately, her response was in line with my expectations. Relatives and friends had migrated both within the country and abroad. Wanting to understand the reasons behind these migrations, I asked her to explain why her family had migrated to La Paz and whether they might return. She attributed their migration to lack of work and economic challenges. But many have also abandoned farming due to deteriorating soil quality and reduced crop yields. In her family's case, they used to grow potatoes, but contaminated water meant they could no longer grow crops effectively, prompting them to move to find work.

After learning about her family's migration, I asked whether she believed they would return or if their migration was permanent. Her response offered a glimmer of hope – she said they might return if the land improved. However, she remains sceptical, given the challenges they face.

To gauge the acceleration of migration to La Paz, I asked whether migrations have increased recently. Her answer confirmed that migrations have indeed surged. Many are moving from rural areas to urban centres, causing congestion. The overflow from major cities causes people to move from town to town, ultimately resulting in some of them leaving the country altogether.

Given the topic of migration and her own family's experience, I inquired about her personal plans. I asked if she'd ever considered leaving her home town. Her response indicated that she was happy

with her current life. Although she has no immediate plans to leave, she would like to revive the traditional way of life of her grandparents in the countryside.

Observing the increase in migration, I inquired whether all migrants leave the cities permanently. She noted that while some leave permanently, those close to her often visit their families despite permanent migration. Recognising the profound impact of climate change on Bolivian lives, I asked her if she thought climate change in Bolivia was having a global impact. She acknowledged its impact, particularly on agricultural exports. Poor crop yields due to climate shifts can disrupt the flow of these exports.

Given the evident effects of climate change, I posed a question about potential strategies to mitigate its effects. She expressed that while ideal solutions would involve government and institutional intervention, the absence of effective legislation and prioritisation hinders progress. Despite the discourse on environmental protection, practical efforts are lacking.

With regard to this dilemma, she reflected on her personal responsibility and the need for greater support. She highlighted the challenges faced by her community, such as respiratory issues due to the harsh climate. She noted that her region, which is characterized by cold weather, has significant problems. While initiatives exist at various levels, including national projects, there is still a lack of awareness, and those striving for change often lack support. She emphasised the need for more influential action, particularly in areas like hers. She confirmed to me that despite the urgent need for action on climate change, there is no significant support from the authorities. Many organizations are trying to help, but governmental support remains elusive.

At the end of our conversation, I expressed gratitude for her openness and willingness to share her story across time zones. I invited her to share any final thoughts. Her message resonated with hope and a focus on children as catalysts for change. Working closely with children through drama theatre and education, she instils in them a sense of responsibility for the environment. Despite the challenges, she remains steadfast in her commitment to protecting the environment for future generations.

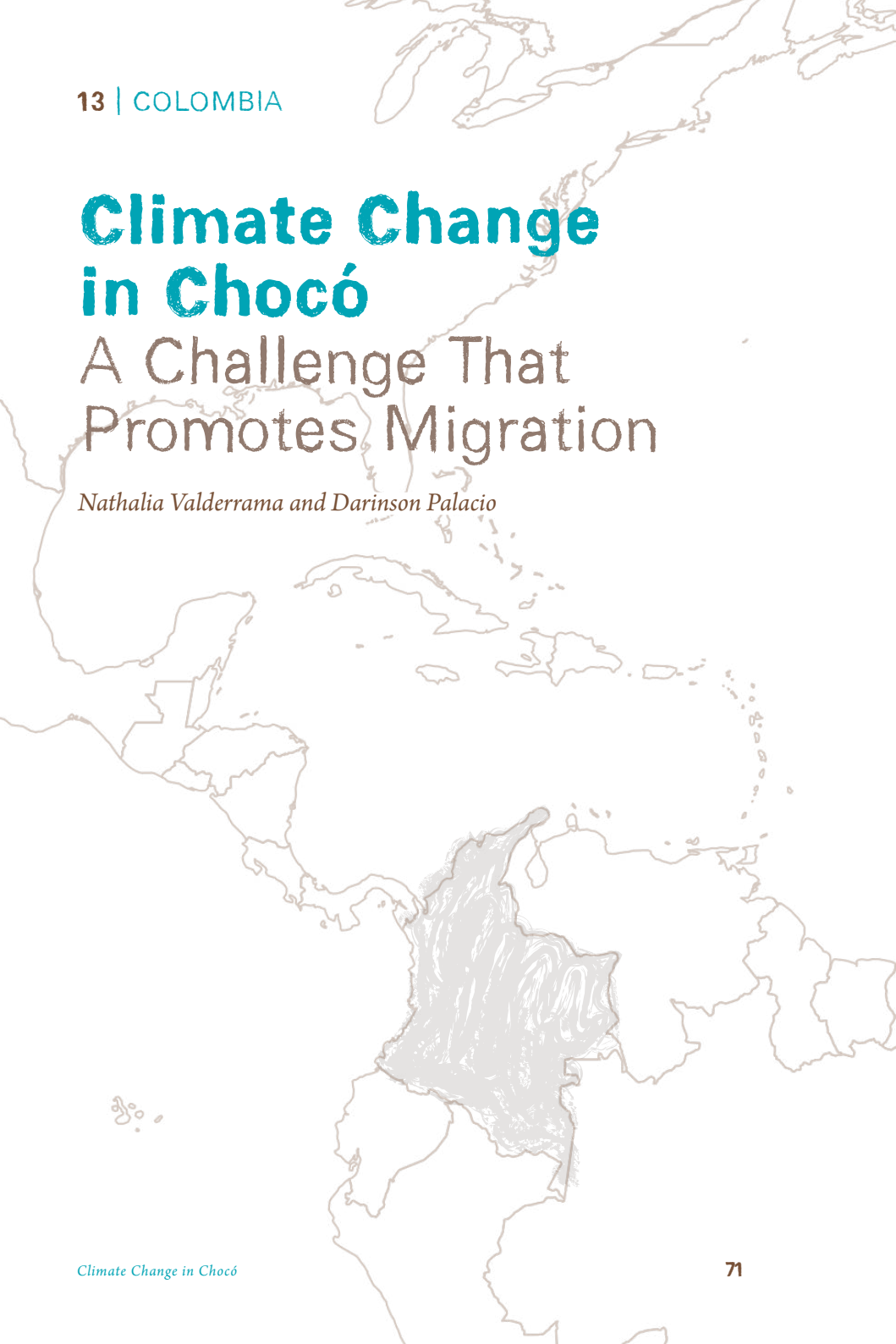
Her story about how they were forced to stop growing potatoes due to water problems and soil contamination gave a deep insight

into the scale and pervasiveness of the climate change challenge. This problem has threatened people's survival and economic stability, as their products are no longer suitable for the market. This situation has driven people to leave their hometowns in pursuit of employment opportunities. Their potential return depends on substantial efforts to clean up the contamination. But even the prospect of returning home is marred by the authorities' neglect and insufficient comprehension of the effects of climate change, despite the fact that these effects are clearly visible and felt throughout Bolivia. Her personal commitment to environmental protection shines through, and she envisions a brighter future through the children she works with. By sharing knowledge and offering assistance, she is raising their awareness of the significance of protecting the environment. Her wholehearted and passionate approach to teaching them about recycling underscores her commitment to mitigating the consequences of climate change. She believes that children hold the key, and sees in them the hope and determination to remain in their homeland despite the challenges posed by climate change. Her selfless efforts strive to minimize the need for migration. The emotions she conveyed while telling this story were profound, and in every response you could feel how important and personal this topic is to her.

Climate Change in Chocó

A Challenge That Promotes Migration

Nathalia Valderrama and Darinson Palacio



Darinson, born in the department of Chocó in Colombia, has a degree in philosophy and religious studies and is a specialist in psychosocial services and higher education. Less than two years ago, he migrated from his homeland in search of new and better opportunities, without fear and with the hope of one day returning to work as a teacher and contributing to society by empowering young people to be critical of the social, political, and especially environmental problems.

Darinson's migration has different reasons and is not directly linked to the effects of climate change in his territory, but he is aware that one of the most influential factors in the difficult problems in this department are the effects of climate change, which are linked to the political and poverty problems on a national scale. In many cases, absolute poverty generates social problems on a large scale. He talks a little about this in the course of the narrative, but he knows a great deal about his territory, he is very optimistic and dreamy, and that is why he starts talking about the richness and beauty of his homeland:

"Well, my department, the Chocó, is a wonderful place that welcomes the magic of the Colombian Pacific with an unimaginable richness. We have the jungle, the Pacific Ocean, beaches, rivers, waterfalls, marine life, fauna, precious metals (gold, silver and platinum) and its people (most of whom are Afro-Colombians, mestizos and indigenous). It is a multi-ethnic and multicultural place, characterised not only by its beauty but also by its gastronomy, music (Bullerengue), dance, passion and the joy of its people. It is truly the most colourful and cheerful place in Colombia and perhaps occupies an important place in the world, despite its difficulties. Life there is quiet, cheerful, simple, very simple. We have learned to live with little money, it is hard but we are rich in other aspects. The Chocoanos are charming and helpful people, they are characterised by their constant expression of happiness, in the midst of difficulties that sometimes it is better to ignore when it comes to dancing ... because dancing is free.

Even if the situation of public order makes it difficult to live together, amidst the difficulties and poverty, people always know how to give their best and learn to survive, which makes us strong, without fear and with passion to face any reality, including having to migrate and reach other places to continue dreaming.

There are difficulties of all kinds, political, social, economic and environmental. Focusing on the latter, I will say that the environmental conditions are quite complicated. It is one of the wettest areas on the planet, and it is estimated that by 2040, there will be an increase in rainfall of around 10%. This extreme weather causes more than just rain: torrential storms cause floods and landslides, and every day we see how the lives of people and ecosystems are affected. These situations make us much more vulnerable. Heavy rainfall and storms take away the land and destroy everything – houses, crops, people – causing natural disasters and disasters in people's lives.

It is incredible to be there and to witness every day how these effects are increasing by leaps and bounds, there are strong changes in temperature that make the situation even more alarming, the landslides affect people, the roofs are being lifted, the already poorly built electrical system is washed away, the floods in the communities are much more frequent, people lose everything, their animals, their crops, and this is one of the reasons why they have to migrate from their land when they are left with nothing. The effects of climate change in my area and the precarious structural conditions, especially in the rural areas, do not allow people to maintain what little they have. Climate change leaves people in absolute poverty, with nothing, because they lose even what little they had – maybe a house, a crop or some animals – and they are forced to migrate. This is the main driver of massive migration.

This situation undoubtedly creates social problems for the people who migrate, some with their entire family and others who have to separate from their family to look for a place to go. This increases the absolute poverty index and reduces the minimum conditions of quality of life, because the people who migrate have to leave their places of origin, their territories, to migrate (in most cases local, within the country) towards the big cities, where they arrive as immigrants without opportunities or solutions. In the interior of the country (mainly in the big cities of Chocó), this reflects

in social problems such as criminal gangs, young people without opportunities, divided families, vulnerable children, etc. The effects of climate change are very complex. A person who leaves his land and does not have the minimum conditions for quality of life – as we say in Chocó, "without having his bread to catch", can generate more poverty, more challenges in society.

So if you ask me about the quality of life and opportunities in my country, I would say that despite its richness and potential, it does not have the conditions, there are very few opportunities, many Chocoanos are educated people with extensive knowledge who find themselves in the realities of the department and the country, but without opportunities it is difficult, and if you add the effects of climate change and migration that are causing people to move and families to break up, it is very complex.

I migrated for several reasons that are not directly related to climate change. I am still worried about my family, my people, the Chocoanos who are still there fighting every day and facing these climate effects. I remember an accident I saw in the municipality of Carmen de Atrato where a bus fell more than 150 metres due to a landslide caused by the weather. The vehicle rolled into the river and about 25 people died, including children, women and some men. Every day we all face situations like this, either dying or losing everything and having to migrate. Another accident happened on the road to Risaralda, the bus stopped because the weather was very bad, it was raining too much, and while it was parked, a landslide hit and buried it, killing about 17 people.

So, living in a place that has so many riches, but lacks the means to ensure a basic quality of life, and adding to that the constant threat of climate change, you see the possibility of migration as a good option. Then you evaluate it and find other realities, but for now migration is the option... And in my case, when I migrated and tried to live in a European country (Spain), far from my customs, I faced a different society and a different culture. I have encountered many difficulties in gaining access certain sectors of society. Little by little, the doors are open and you begin to understand the new reality, to make friends and open up to the worldview of this new reality and society in search of opportunities.

The future... I imagine my future as having a higher academic education, being more qualified and having a better quality of life,

more opportunities. I want to contribute to the progress of my department, the Chocó.

I dream of having the opportunity to practise my profession as an educator, it is my vocation, I want to be able to share my knowledge, to be able to teach, to help young people to develop their critical thinking, to understand the reality and to contribute positively to the society, so that they are guardians of their quality of life, capable of thinking and reflecting to contribute innovative ideas for the social transformation...

That is my big dream, let's hope God allows it, there's no fear, I believe it's not necessary to have limits, it's not necessary to be conditioned, it's about looking for solutions."

Snow Breakage and Habitat Adaptation Due to Climate Change through the Eyes of an Austrian Farmer

Christopher Chukwudi Chime

Case study on the effects of climate crisis from the perspective of young people
Austria

For Walter Pürstl, a farmer and forester, the last few winters have been different from the many that have gone before. "There have always been snow breakages," he says, "even in my father's and grandfather's time, but not as often as now and not to such an extent."

Snow breakage, or ice breakage during freezing rain, is the term used to describe tree damage (branch, trunk and crown breakage) caused by high snow or ice loads on the tree or on structures. Over the past two or three years, Walter has noticed an increase in snow breakage in his home country, Austria's low mountain ranges, where much more wet and heavy snow is falling than in the past.

Snow breakages are dangerous, causing trees to break off or suffer serious damage. When there is a risk of snow breakage, routes are usually closed completely because entire trees, especially flat-rooted trees, can be uprooted and large, heavy branches can break off, which can also occurs spontaneously long after the actual weather event.

Winters are also becoming more severe in his home mountains in western Styria. The snow breakages are not only a headache for Walter, they affect everyone in the area and cause an immense financial damage. "But what hurts me the most," Walter continues, "is that trees are breaking down that have been growing there for decades and that I've known since I was a child."

Some trees naturally form a lot of tight angles, making them extremely vulnerable to falling from wind, snow and ice. When asked what strategies, if any, are in place to prevent or prepare for snow and ice breakages and minimise damage, Walter says that selecting hardier trees that are more resistant to damage could help. However,

in a forest, this can only be done over a very long period of time; it would take decades or centuries.

The temperature in the Alps has already risen by two degrees in the last few decades, or more concretely, in the last century, explains Walter. "Nowhere in Austria is climate change as measurable as in the Alpine region. Temperatures here have risen by two degrees Celsius over the past 100 years, much more than the global average. Since 1970, the climate in the Alps has warmed by around 1.8 degrees Celsius."

Researchers warn of a ticking time bomb in front of our eyes: Walter explains that as early as 1854, the highest tree species were already recorded on behalf of King Maximilian II of Bavaria – precisely at the time that is now considered the reference point for pre-industrial climate conditions. At that time, the temperature was measured daily at the meteorological observatory on the Hohe Peißenberg in Upper Bavaria. "The holly, for example, which had its highest point at 907 metres in 1854, is now found at 1,300 meters – and has thus spread upwards by exactly 400 metres," continues Walter.

The process of how individual tree species are grow and spread upwards as a result of global warming can be also seen tree by tree. One mouse click away, the Baysics Nature Explorers site also provides projections for the future. The areas where holly, for example, could grow under a further one and two degrees of warming are shown in red – which is what the researchers expect to happen if carbon dioxide emissions increase only moderately by 2050 and 2100, respectively.

One of the most visible changes in the Alps due to climate change is the development of the glaciers. Glaciologists (glacier experts) believe that the complete melting of the "eternal ice" is inevitable in the next 20 to 30 years; half of Bavaria's glacier area has already been lost. Austrian glaciers are also melting faster than ever – the Austrian Alps could be ice-free in 50 years at the latest.

Not only have the winters changed, so have the summers, says Walter: "In this area, where I have lived for 54 years, it has never been 30 degrees in the summer – but in recent years 30 degrees has become the average summer temperature here. For example, because we live quite high up in the mountains, at an average altitude of 900–1,100 metres, we never had outdoor swimming pools in the summer. There were only indoor swimming pools and we used to swim in cold mountain lakes. That has changed completely. This may sound like a

luxury problem, but of course it also affects other levels," says Walter. The tree line is shifting. "It is climate change that is shifting the tree line," and that is a problem because "alpine pastures are becoming overgrown if they are not grazed."

As temperatures rise, the forest line rises and the alpine pastures continue to grow unless there are enough animals to graze them. The first consequence of climate change in mountain regions is that trees at the timberline are now growing much faster than in the past. The tree line in the mountains has not yet shifted upwards in a way that is visible to the layman, but the faster growth is a first sign, says botanist and mountain expert Christian Körner of the University of Basel in Innsbruck, Austria, in an interview.

"If the trees are doing so well at their growth limit, it would also be possible for them to grow higher up," Körner said. But because trees grow relatively slowly at that altitude, a significant shift in their life limit won't be visible for at least 50 years. The tree line always lags one to two centuries behind the climate."

As a farmer and forester, Walter is used to changes in nature: "As a farmer, you always have to adapt to nature. The forest is always something alive, constantly in motion." As temperatures rise, forests expand higher and higher – and rapidly. Walter is convinced: "Because of warming, because of climate change, the forest is under pressure from new plants, that did not grow at these altitudes before. The subalpine spruce forest is actually threatened by the fact that beech is approaching from below and it's all turning into mixed forests. One could say that it's nice, mixed forest is nice. But the special features of the subalpine spruce forest, which is the optimal habitat for capercaillie, for example, could become increasingly rare and go extinct."

"The mountains are becoming too overgrown. The beautiful landscapes above the timberline, where we have a great view and the cows graze peacefully, it's all becoming too overgrown." As Jörg Ewald from the Weihenstephan-Triesdorf University of Applied Sciences says: "We would have plus four degrees compared to 1850 – that's what many scientists think is most likely. There's hardly anything we can do to prevent it. It's madness what we're doing to the climate. It's like a time bomb going off before our eyes!"

In addition to forestry, Walter is also a farmer and has many dairy cows. "As the mountains are becoming overgrown, not only

are beautiful landscapes disappearing above the forest line, where we would otherwise have a great view, but even where the cows used to graze peacefully, everything is growing over."

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Austria has one of the highest shares of mountain areas in the European Union. Around 39% of all agricultural and forestry holdings (excluding pure alpine farms) in Austria are classified as mountain farms. Abandoning an alpine pasture or mountain farm has always been taboo in the Walters family, but more and more farmers are thinking about it. "After all, we have been living sustainability for generations and are trying to set an example for future generations as well. This is how farmers usually think. Sustainable and long term."

Alpine pastures are still being managed and of course they need to be managed, but the trend is negative. New strategies are needed – also for Walter and his children. The majority of mountain farmers in the province of Styria are already part-time farmers. This is also how Walter's children see the future. One of Walter's children runs an organically managed farm with wooden stables and free-range cows. In addition to being a farmer, he is also a teacher at the nearby agricultural school. Organic farms are more environmentally friendly, but he cannot live on it alone.

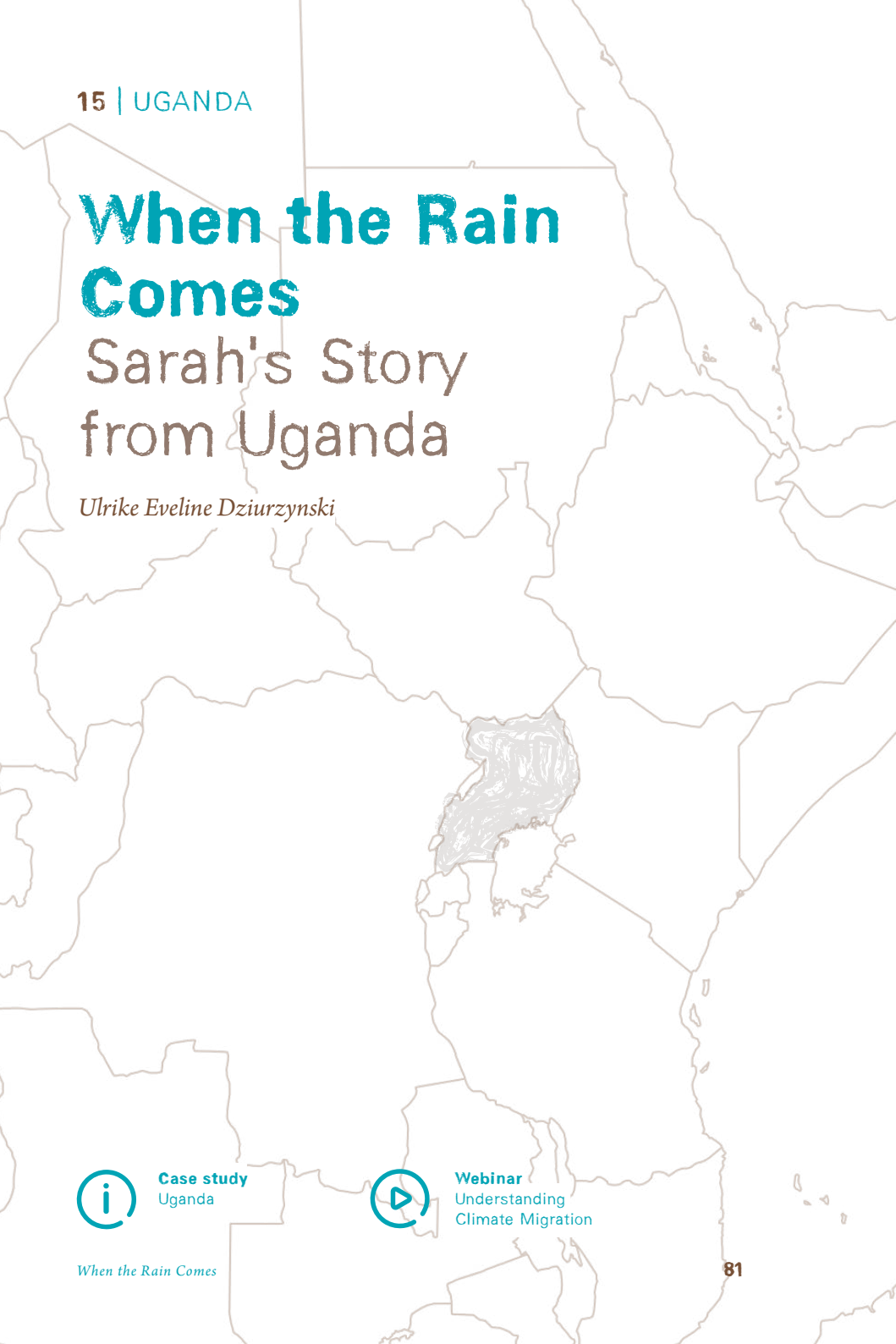
Farmers play a vital role in the economy as a whole. They produce genuine and fresh food and thus guarantee regional security of supply; together with climate protection, this is an important social mission. Austria has recognised the existential necessity of farmers, and there are numerous subsidies, without which the majority of Austrian (mountain) farmers could not survive. This is also a good way and another important function of public funds: they enable affordable food for everyone. And they can still ensure a decent income for the farms. But, as Walter says: "It's becoming increasingly rare for children to say, 'Yes, I want to be a farmer too.' Increasing requirements, regulations and laws would ensure that the death of farms would continue."

This makes it all the more important that we all work together and help save our planet. Walter says that one solution to save mountain agriculture, in addition to active individual climate protection, is the implementation of rules and laws to meet the 2030 climate goals. This can only be done by governments themselves.

When the Rain Comes

Sarah's Story from Uganda

Ulrike Eveline Dziurzynski



Case study
Uganda

Webinar
Understanding Climate Migration

Sarah's story, as is so often the case when talking about climate migration, is an intersectional accumulation of many social categories and their respective challenges, such as economy, education, womanhood, and, among others, change of climate.

For the past four years, Sarah has been living in a resettlement camp in eastern Uganda. She is 37 years old and the mother of three children, all of whose names begin with the letter "A". Sarah grew up with her parents, who cared deeply for her and tried to help her with her education. With the help of her parents and an uncle, she completed secondary school level and later pursued a training as a nursing assistant. She describes her parents as always willing to face the challenge of having to pay for the fees, even though it was difficult for them. She eventually graduated.

However, despite her medical education, Sarah struggled to find a well-payed job. Faced with this difficulty and the fact that her job with a local NGO did not meet her needs, she explained that she chose a different solution: marriage. While she does not delve into details about her husband, she mentions that they lived in a remote farming area in eastern Uganda, which she refers to as "the hidden place". It was here that the impact of the climate crisis on Sarah's life became apparent.

"It would rain from morning to evening," Sarah says, describing a period of heavy rain in 2019. It caused a massive landslide that destroyed her home and took the lives of many people she knew. Survivors, including Sarah, were resettled in a camp where she has moved several times in the past four years. She describes her current home as lacking many basic things, such as medicine and infrastructure, and describes it as sad in general.

One thing the new location does offer, however, is fertile soil, much better than in her previous home. This time, however, the land has been plagued by prolonged and intense droughts. Sarah explains how crucial regular rainfall is for their crops, as it enables the cultivation of various crops such as corn, beans, sunflowers and groundnuts.

"If it rained every three months, we could plant different things," Sarah explains. But at the moment it is more a game of chance than certainty. "If the heavy rains come, you have to be ready to plant, whatever you have – just plant." However, Sarah continues: "Every day it does not rain, we are losing precious seeds, which leads to food insecurity."

The rainy season from March to June was meagre, and the second season looks even worse. It seems paradoxical that it was too much rain that got her into this situation, and now she is struggling partly because of the lack of rain. The changing climate also brings unbearable heat and an abundance of mosquitoes. The mosquito nets they have are unable to keep them out, causing sleepless nights and illness, especially among the children. In her old home, mosquitoes were less of a problem due to the colder climate.

But how to tackle these problems? Sarah says one solution would be to plant large trees to provide shade for cultivation. She suggests that establishing a gravity flow scheme to provide water for production would enable people in the area to produce food throughout the year. With the use of such systems, water moves with the help of gravity into a pipeline system. Besides avoiding contamination, it also reduces the time and risks for those who have to fetch it.

According to Sarah, another solution would be to get a different job. Sarah does not want to be a farmer. She wants to use her medical knowledge to help other people, which is the case even in her current situation, both as an advisor for her sick neighbours and as a caregiver for her neighbours' children, who live with her and her family. "What pains me the most is that I wasted my time going to school and that my parents had to pay for my education," Sarah summarises, her frustration evident. Even so, she wants a good education for her own children and stresses that it is important for them to go to school.

Sarah's story is unique, but she is not alone in her experience of changing climate. The climate crisis affects thousands of Ugandans every year, causing internal and external migration. Sarah has experienced both floods and droughts, two extreme climate events, and the consequences of climate change continue to impact her life, the lives of her children and many others. What the future holds, Sarah does not know, but she continues to help and attend to other people's needs. "What can we do? We can only help each other," she

says. Her words do not fall short: her story stands as a testament to the everyday truth of climate change for her family and countless others in similar circumstances.

Being an Agent of Change in Bolivia

Estefania Cavalie

Case study
Bolivia

Back to the roots – climate change in Bolivia

Mario Suárez is an urban architect born and raised in La Paz, Bolivia. He later specialised in environmental consulting. However, his second profession is theatre, where he is one of the founders and main actors of Mita'wi Teatro. Through his work, he has been able to witness, directly and indirectly, the environmental and climate impacts that his country is facing. For instance, one of the main problems facing Bolivia today is deforestation, particularly in the east of the country. With increasing urban density in the major cities of the east, this means that much of the forest is being cut down to meet the demand for housing.

Symptoms of climate migration in Bolivia

Migration is a difficult issue in Bolivia because poverty is a latent problem for many families. They do not have the capacity or the resources to migrate to other communities or cities. People who have been forced to migrate basically live in miserable situations, as they depend on their daily income in their current situation. In addition, many of them live in extreme poverty and have to adapt not only to the challenge of migration, but also to the precarious conditions of the place, such as river pollution and often poor waste management. This makes it increasingly difficult for Bolivians to have a good quality of life, and in their current living conditions they are more likely to suffer damage to their health, family stability or ability to find work.

In Bolivia, mostly in the Andean region, natural lagoons are being lost, which is quite alarming because they have practically lost lakes that had a rich biodiversity of fish and on which many citizens depend. One of these lakes is Lake Poopó, located in the city of Oruro. It is thought that climate change, the El Niño phenomenon and massive and uncontrolled extraction of water for agriculture, industry, and mining have destroyed it. Today, families who used to

live around this river are looking for new livelihood opportunities, since they are unable to continue with their work or maintain a quality of life due to the absence of this lake. Unfortunately, neither the government nor the media have given due importance to a loss of such magnitude for the country. "We all continue as if nothing had happened, but if we analyse the situation of the people who live around this lake, their way of life is totally dependent on it," Mario points out.

In this same region of the Andes, winter used to come between May and July, when the river's flow was very low. It is important to emphasise that climate change has now affected the seasons. This year (2023), the arrival of the frost has been brought forward to the end of March, and the heavy snowfall to August, whereas it usually arrives between January and February of each year. When families in rural areas do not have adequate conditions, they lose their livestock, such as sheep or camelids, poultry and other. These losses in the sector and the continuous demand for local food or textile products also have an impact on the increase in market prices throughout the country.

Moreover, the *El Niño* phenomenon, which refers to a warming of the ocean surface, or above-average sea surface temperatures, in the central and eastern tropical Pacific, is responsible for floods and landslides that destroy people's crops. Although this is a meteorological phenomenon and is not a consequence of climate change, it cannot be ignored that global warming will aggravate the effects of climate change, making *El Niño* even more devastating. This phenomenon tends to affect low-income families the hardest, with some of them losing everything. It also affects agricultural production, while roads and highways begin to collapse due to landslides. This affects the use of these main roads by citizens, private transport companies, product suppliers and others. Although it could be argued that these are sufficient displacement drivers for the inhabitants of these communities, they usually have very few financial resources to do so. This makes it difficult for them to leave their homes, where they have lived for generations and where much of their work and daily activities take place.

Other environmental issues in Bolivia

Bolivia is highly dependent on water cycles, which makes it entirely dependent on the eastern sector of the country, where there are large areas of forests. In this sense, deforestation is damaging the water

cycle, leaving very little water in western Bolivia. Droughts in some places are irreversible, so this is a very alarming problem. "I would say that the authorities today are not taking measures to deal with the huge deforestation that is taking place in the east," says Mario. This includes a great battle against the pollution of rivers, mainly caused by mining. This is quite alarming because it not only harms the fauna in the first place but also the indigenous populations living in the Amazon. They are totally dependent on these rivers and other resources, as they are the main source of their livelihoods, e.g. fishing and agriculture. Representatives of these communities are now calling on the authorities to take immediate action against these gold cooperatives.

In 2020, Mario had the opportunity to work in one of the municipalities in the rural area of Irupana, located between the valley and the Andes mountain range. In this region, there are families in the area who live exclusively from agriculture. One of these people is Mr. Donato Mamani, whom he had the opportunity to meet while working and living in Irupana. Donato's project focused not only on crops, but also on fish farming, breeding local fish such as the *trucha*. But, unfortunately, this work was destroyed when a group decided to excavate in the search for mines since this is a region quite rich in gold. Since then, new mining cooperatives have been opened, which practically polluted all the rivers around them. As in Mr. Mamani's case, this also affected many other people living in the surrounding small communities. Although they have tried to find new ways to get clean water and be able to continue with their daily activities, such as using of drinking water tanks, it has been impossible to maintain this over time.

In addition, there are approximately 36 mining cooperatives in the Bastilla and Mane sectors, all of which are privately owned. The most unfortunate thing is that only two of these cooperatives comply with the requirements of environmental legislation. The informality and carelessness of these private cooperatives has had an impact on the environment in which they operate, leading to unsustainable exploitation of the area. As a result, the rivers from which they draw their water have dried up, and although the government is launching projects to provide the micro-irrigation systems for the inhabitants, these do not cover the entire population of the sector. Much of this situation is due to the fact that few communities have access to land,

making it difficult for aid to reach them. And without access to bridges for transport, this means a 2 to 3 hour walk for them. This obviously isolates them from receiving long-term support.

These stories do not leave those closest to Mario, like his younger brother, who works in mining, indifferent. Most of the owners of these mining companies are older people who recruit young people between the ages of 15 and 25 who want to earn a living in the sector. They are promised an attractive salary above the minimum wage, with benefits and even a share of the mine's annual turnover. They are practically sold a false idea of what this kind of work is like, and have no idea what it is like to work in virgin mines. They often do not have the proper equipment, such as tools to prevent exposure to materials that are harmful to humans and detrimental to their long-term health. As a result, many of these young people only reach the age of 45 or 50, and many suffer from bronchitis, lung diseases and cancer, to name a few. Mario believes that mining cooperatives take advantage of young people who are enthusiastic about starting a well-paid working life. Workers typically work for 15 days on and 5 days off, during which time they are fully exposed to minerals and metals such as mercury, lead and sulphur.

Consequently, several well-known real estate companies are building houses in the eastern part of Bolivia, effectively plundering hectares of forest with the promise of a better and more ecological lifestyle with vegetation and clean air. This social phenomenon leads people to buy these houses or land, without thinking about the consequences of their decisions or desires and even without taking into account a previous environmental impact study, before building or depredating indistinguishable natural areas that should be considered nature reserves. In their quest for a "better life", they are damaging natural areas and taking away the homes of many people who have lived in these areas for generations.

Theatre as a key element in reaching out to Bolivian citizens

Mit'awi means "time" in Quechua. Mario chose this name for his theatre company, or what he refers to as his other passion, which clearly represents the frozen time when the audience is immersed in the play. The audience can easily relate to real issues that reflect the reality of their own country. The theatre company has produced a number of plays to promote civic education on issues such as violence

against women, migration and the environment. Other plays included "The life of a miner in the XXI century". Besides providing new knowledge about important issues facing the country, theatre also touches the hearts of the audience. The two most important issues recently addressed were deforestation of forests and the indiscriminate hunting of jaguars and Andean foxes in the Amazon region. Unfortunately, the belief that "the fox's tail can bring you luck" has led to indiscriminate fox hunting. These facts served as the basis for the play "Leyenda", which depicts the interaction between the fox and the jaguar and illustrates how deforestation and indiscriminate hunting not only negatively affect them as a species, but also us as a civilisation and the environment in which we live. The play presented an opportunity to increase the audience's empathy, while simultaneously emphasising the need to teach both adults and children the value of protecting the environment and the ecosystem that supports them. Finally, since the majority of people had never had the opportunity to see a live play, the company's primary objective was to introduce theatre to rural areas.

Hope despite adversity and actions to change society

Mario has not lost hope despite the great challenges facing his home country. On the contrary, he has a strong vision of how to achieve the change he wants to see in the coming years. In his view, the perfect recipe for change is to raise awareness among citizens, especially among the children and young people who will lead the country's future. He believes that these issues affect everyone, regardless of social class, ethnicity, age, etc.

Although the state's actions to mitigate environmental problems in Bolivia have not been sufficient to safeguard the well-being of its citizens or the country, there are citizen movements and projects that seek to collectively transform society to achieve change and leave a country that future generations can live in. Two of these initiatives are the Titicaca Lake clean-up campaign, in which organisations and young people participate and help with the various clean-up tasks. The second one is Senda Verde, which rescues and shelters wild animals rescued from illegal trafficking and habitat destruction.

Mario believes that one of the main changes to be made in Bolivia is to improve the quality of life of its citizens. With a better quality of life we would be talking about a better education, more and

better resources, a more stable economy, and qualities that open up the possibilities for people to develop in their environment. These would allow people to think about issues such as climate change, citizen awareness and mental health. Above all, he claims, culture and art are conceived as means of communication and expression for citizens and for empowering people's voices.

Stolen dreams

Azra Zahirović

Case study
Myanmar and Bangladesh

See, he is playing volleyball again
he is young, simply aware
life is easy, life is there.
But one moment, sound
take the memories away
he knows – it's another day
there are bills to pay
while the waves are carrying
his dreams far away...

We are all struggling to find the right path in this modern and complicated world. Rushing from one thing to another, bombarded with information, it is easy to lose our compass. We hear the news but also forget it very quickly, and we simply don't have the time to connect with other people's stories or problems. That is why this story is an attempt to pause whatever we are doing and take a few minutes to listen to the stories of others. To awaken empathy in all of us and to remind us that we are not alone in this world.

This is a story about a man who lost everything, and at the same time, it is a story of so many people from Myanmar. Cyclone Nargis in 2008 left behind death, damage, and grief. Rumours spread of the cyclone's destruction of entire towns and the resulting deaths or injuries of hundreds of thousands of people.

Saw Bee One lived his life peacefully, finishing and cultivating a paddy farm in his original village. Life was not easy but his family was with him, he got married and his wife gave birth to his first child. They were happy. Then came the night Nargis, and he will never forget those moments. In a matter of hours, his home and everything he had done for so many years was gone. But losing his child was the hardest experience for him. They were torn apart as the huge wave came and the water rose. He tried to find his 4-year-old child and help him, but he had no strength. He also lost his mother and other family members on the same day. After losing more than 25 family members, his wife suffered from depression and anxiety for many years.

Like everyone else affected by Cyclone Nargis, they managed to survive the most traumatic experience of their lives. But what makes them so unique is the fight for their lives that followed. They made the decision to leave the village after waiting for five days for assistance and getting no help from anyone. They had no money, so Saw Bee One's wife made a brave decision to sell her hair on the road so they could buy food and carry on. They arrived in the city of Hpa-An in a horrible state. They were forced to start everything from scratch without any organizational assistance. The young couple managed to muster the courage in the face of the worst despair. Before he found his current job, which requires him to carry a rice pack every day while working in a rice factory or shop, he did various jobs and helped others. Despite the fact that the work is physically demanding, he manages to provide for his family. His wife also works, though only sporadically to be able to support the family.

Today, they have four daughters, who symbolise both their greatest hope and their greatest fear. They believe that by getting an education and not having to work for others, they will have a better future in Myanmar. On the other hand, they worry that the catastrophe could strike again and endanger their children's lives.

However, if you ask him today if he would leave Myanmar, he will still say he would not make such a decision. He is used to his home country, but more than anything he is attached to his family. After so many losses, he has realised how important it is to be with the people you love, how important it is to keep your family together.

That is why Saw Bee One wants to one day stop working for others and open something of his own or start a business as a taxi driver. Although he feels that change is happening extremely slowly. He is frustrated with the system, but is reluctant to express his anger. He devotes all his time and effort to working and providing for his family. There is no leisure, no downtime, no relaxation for him in that struggle.

But when Saw Bee One dares to dream, he imagines himself as a man with a bicycle of his own and the ability to play volleyball in his free time. I for one hope that one day his dreams will come true …

Climate Change and Internal Migration Processes in Spain

Influence of Climate Change on Human Mobility and Possible Responses

Case study on the effects of climate crisis from the perspective of young people
Spain

In order to gain a concrete and meaningful insight into the issue of climate migration within Spain, we interviewed Paola Villavicencio and Susana Borràs on seven key questions about climate vulnerability and internal displacement in the country. Paola and Susana are authors of the publication "Vulnerabilidades climáticas y desplazamiento interno en España: Dos realidades complejas e interconectadas" ("Climate vulnerabilities and internal displacement in Spain: Two complex and interconnected realities"; 2023), which deals with this phenomenon.[1]

What is the current context in Spain: climate change – internal migration?

Around the world, climate change and its impacts on livelihoods and habitability are forcing millions of people, especially the most vulnerable, to move within or outside their countries in order to protect their lives and those of their families.

In the case of Spain, the risks and vulnerabilities arising from climate change, together with impoverishment and loss of livelihoods, also influence internal climate mobility, especially from rural to urban areas, playing a key role in the decline of rural areas and the increased concentration of the population in cities, which are highly exposed to climate impacts.

Has it been studied – analysed?

The study of the phenomenon of human displacement due to climate change has mainly focused on movements of people from the most impoverished and highly vulnerable countries, which has contributed to the perception that it is a distant and alien problem. For this reason, particular attention has been paid to internal displacement in these countries, mainly in the Global South, as the reality is that people affected by climate disasters do not often cross international borders to seek protection.

1 https://revistes.urv.cat/index.php/rcda/article/view/3587/3775; https://doi.org/10.17345/rcda3587

Research on the impact of climate change on human mobility within more affluent countries, the so-called 'Global North', such as Spain, is still limited, and the little data that exists is linked to sudden-onset disasters or a specific extreme weather event, such as fire. Even scarcer are studies on internal displacement linked to slow-onset climate hazards, such as droughts, or those that analyse the causes and consequences of such displacement or related response measures.

Why do you find it interesting from a research point of view?
The study of internal population movements in Spain due to climate change is crucial, as Spain is one of the European countries most vulnerable to climate change. The various climate impacts on the country's social, ecological and environmental systems are currently linked to processes of human mobility, especially from rural to urban areas. These processes could increase as the impacts of climate change intensify.

In this sense, in addition to the production and analysis of statistical data, it is necessary to contextualise and understand the causes and consequences of such displacements, as well as the responses needed to address them and provide protection to those affected. When such movements occur from rural to urban areas, they not only increase the pressure on resources, services and infrastructure in cities that are already vulnerable to climate change, but can also lead to greater inequality and social and economic marginalisation of the most vulnerable groups, including displaced people, as they often end up living in urban areas with high climate risks and with limited access to services or housing, exacerbating their vulnerability and exclusion.

What recent climatic phenomena have caused, or may have caused, internal displacement?
Data from the Internal Displacement Monitoring Centre (IDMC) links internal displacement in Spain to one-off extreme weather events, mainly floods and forest fires. In 2021, for example, forest fires are reported to have displaced more than 4,600 people in the country.

Although it is more complex to identify the movements of people as a result of slow and progressive climatic risks, such as droughts, food shortages or rising sea levels, the fact is that they are also linked to processes of human mobility through the progressive

impoverishment of the areas affected and their interaction with other factors (social, economic, political, etc.).

The latest data provided by the National Statistics Institute (INE) on internal migratory patterns in the country shows that in Spain internal movements of people are predominantly from rural to urban areas. Although such data and demographic projections do not consider climate change as a determining factor in population changes, especially due to the complexity of the interacting factors in displacement, the fact is that current human displacements are not only linked to climate change, but also to the processes of impoverishment, loss of livelihoods, political neglect and lack of alternative livelihoods in rural areas affected by climate change. Thus, if we compare the data for the areas most affected by environmental and social changes and those most vulnerable to climate change, we can conclude that these are also the rural areas with the greatest demographic decline or internal displacement (for example, the areas of Zamora, Soria, Guadalajara or Burgos, among others).

Are there any strategies being adopted at the national level to address internal displacement in Spain?

In terms of the strategies adopted, there are currently no legal policy responses at the national level that address population displacement due to climate change. Law 7/2021 on climate change and energy transition does not contain any provisions in this regard. Nor does the National Climate Change Adaptation Plan (PNACC) 2021–2030. At the regional level, only the Andalusian Law 8/2018 and the Valencian Law 6/2022 adopted on this issue recognise climate change-related migration as a strategic area for climate change adaptation, perhaps because these are the areas most exposed to the effects of climate change and where rural internal displacement is already a reality.

Do you know of any stories or examples of climate migrants in Spain or in regions particularly affected or likely to be affected by the phenomenon?

The lack of recognition and protection has contributed to the lack of visibility of the situation of people that are forced to move due to climate change impacts. It is only when large numbers people are evacuated in the event of major sudden-onset disasters such as storms, floods or fires that the news is reported.

This was the case of Alvaro García Río-Miranda, who was affected by a forest fire in the Sierra de Gata in 2015 that killed half of his herd, which was the basis of his livelihood. The effects of climate change have impoverished him and his losses have led to his displacement. These movements of people, which are so important in rural areas, are key to increasing climate resilience. In many cases, the displacement of people also implies a change in economic activity, with negative implications for rural abandonment.[2]

In general, little is said about the impact of, for example, droughts or desertification on people, especially those involved in agricultural or livestock activities. And when it is addressed, as in the case of rural displacement, it is in relation to situations of impoverishment, loss of work and purchasing power, without analysing climate issues as a factor that determines the economic situation, the risk, the loss, and even the abandonment of the areas of origin.

There are other very interesting reports that provide testimonies:

- WWF (2007). *Testigos del clima* ("Climate Witnesses"; testimonies of 27 Spanish people from 11 autonomous communities);[3]
- Greenpeace Spain (2020). *Proteger el medio rural es protegernos del fuego. Hacia paisajes y población resilientes frente a la crisis climática* ("Protecting the Rural Environment Is Protecting Ourselves from Fire. Towards Resilient Landscapes and People in the Face of the Climate Crisis");[4]
- World Economic Forum & Ipsos (2022). *Majority across 34 countries describe effects of climate change in their community as severe* (global survey on the severity of impacts and expectations of displacement due to climate change).[5]

Could you present the research "CLIMATE VULNERABILITIES AND INTERNAL DISPLACEMENT IN SPAIN: TWO COMPLEX AND INTERCONNECTED REALITIES" and the recommendations you propose based on your analysis?

Our study analyses the phenomenon of internal climate displacement in Spain and the extent to which current legal and policy responses to climate change address this phenomenon and promote the protection of displaced persons. According to the 1998

2 https://www.euronews.com/2020/02/26/extreme-weather-exiles-how-climate-change-is-turning-europeans-into-migrants
3 https://www.wwf.mg/?51800/Climate-Witness-Jose-Luis-Oliveros-Zafra-Spain
4 https://es.greenpeace.org/es/sala-de-prensa/informes/proteger-el-medio-rural-es-protegernos-del-fuego
5 https://www.ipsos.com/en/climate-change-effects-displacements-global-survey-2022

Guiding Principles on Internal Displacement, all persons facing internal displacement due to environmental change, including climate change, should receive the necessary protection regardless of whether they live in a developing or developed country.

Our analysis shows that, on the one hand, internal displacement linked to the effects of climate change and other determinants is a reality in Spain, especially affecting populations rural areas of the country that are highly vulnerable to climate change. On the other hand, although this phenomenon is a reality, our research shows the absence of adequate responses to address it and ensure the protection of the rights of displaced persons, which increases their vulnerability.

Furthermore, we propose how these population movements represent a challenge to the progressive depopulation that is affecting Spain, increasing the social and patrimonial decline that inevitably has socio-economic and environmental implications, especially due to the loss of care and conservation of the natural environment. We therefore suggest that rural repopulation could not only address the current depopulation, but could also be used as an adaptive strategy to alleviate the migratory pressure on the cities, while restoring collaborative and supportive forms of rural life in the countryside.

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