WEATHERING RISK

Roots for peace:

Uncovering climate security challenges in Haiti and what to do about them

Beatrice Mosello
Lucas Destrijcker
Spencer Adrian McMurray

October 2023

adelphi

MINISTÈRE DE L'ENVIRONNEMENT

GSCH
Groupe Sécurité Climatique Haïti

UN environment programme

UNDP

Imprint

Published by
adelphi research gemeinnützige GmbH
Alt-Moabit 91, 10559 Berlin
+49 (030) 8900068-0
office@adelphi.de
https://www.adelphi.de/en

Authors
Beatrice Mosello (adelphi)
Lucas Destrijcker (adelphi)
Spencer Adrian McMurray (adelphi)

Layout
Nina Schmelzer

Cover Image
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This study is the result of very broad consultations with all spheres of Haitian society, with the aim of producing an analysis and building common advocacy to address the issues linking climate and security. As such, the specific analysis, perspectives, and/or any subject matter exclusions reflected in this report, including regarding socio-political issues in Haiti, may not reflect the individual opinions of the member organisations of the Climate Security Group and do not constitute an endorsement.

Acknowledgements
This study was developed in close collaboration and consultation with the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), the Ministry of Environment of Haiti, and the Groupe sur la Securité Climatique en Haïti, a coalition of more than 60 UN Agencies, Haitian institutions, international organisations and NGOs, and Haitian civil society organisations (list in Annex 1).

The study was prepared by Dr. Beatrice Mosello (Author, adelphi), Lucas Destrijcker (Author, adelphi) and Spencer Adrian McMurray (Author, adelphi). Substantial contributions were provided by Anastasia Steinlein (adelphi) and Jessica Hsu (Independent Researcher), without whom this report could have not been completed. Editorial support and overall coordination were provided by Paule Juneau (UNEP), Paul Judex Edouarzin (UNEP), Fabien Monteils (UNEP), Dario Noel (UNEP), Dorine Jn-Paul (UNDP), Alexandra Steinkraus (adelphi), and Nina Schmelzer (adelphi). Layout support was provided by Nina Schmelzer, and citation support by Mary Elizabeth Potts (adelphi).

Special thanks to the UNDP, UNEP, International Organisation for Migration, World Food Programme, UN Resident Coordinator Office in Haiti, Swiss Embassy, and Concern Worldwide Haiti for financing this study. Further, immense thanks to Concern Worldwide Haiti for the facilitation of important consultations and group discussions in some of Port-au-Prince's hardest to reach areas, to NDL construction for the facilitation of focus group discussions conducted throughout the rest of Haiti, and to all the interviewees, anonymous or otherwise, specifically consulted for this report for their rich insight and time (see Annex 2).

Contact
Beatrice Mosello
mosello@adelphi.de

Date
October 2023

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Executive summary

That climate change and environmental degradation, combined with pre-existing contextual vulnerabilities, contribute to violence, instability and conflict is nowadays rarely disputed, and tragically evident in many places around the world. One such place is Haiti. One of the most impoverished countries in the Latin America and Caribbean region, Haiti experiences significant climate change risks, including rising temperatures, declining rainfall, the expansion of hot days, more intense hurricanes, and rising sea levels that threaten to compound coastal erosion and flooding. These risks are all set to intensify over the next 30 years.

Haiti is already characterised by dire environmental degradation, resulting from a history of poor natural resource management, and overexploitation that has its roots in the country's colonial past and continues to the present day. Critically, Haiti is in the midst of a deep security, political, economic and humanitarian crisis. Armed gangs control most of the capital city, Port-au-Prince, as well as key roads and other infrastructure across the country, using violent tactics, including rape and sexual- and gender-based violence, against the population to assert their authority. The assassination of President Jovenel Moise in 2021 has plunged the country into further political chaos, hampering much needed action to address the most extreme bout of violence Haiti has ever experienced. Meanwhile, Haiti's economy is in freefall, strained by a series of disasters caused by natural hazards and the depreciation of its national currency, the gourde. As a result, almost half of the Haitian population is currently in need of humanitarian assistance, an estimated 165,000 people are internally displaced, a cholera epidemic is in full swing and food insecurity has reached unprecedented levels.

The interlinkages between environmental degradation, peace and security are not new to Haiti. Expert observers repeatedly warned that Haiti's ecological crisis was a "time bomb" that needed to be addressed to prevent instability. With the effects of climate change, existing trends around vulnerability and resilience in rural and urban Haiti will worsen, and new conflict dynamics and mobility patterns may emerge. Therefore, if policymakers are to not only mitigate the worst impacts of climate change, but also mitigate the growing insecurity climate change is fuelling, it is essential to look at how climate change interacts and converges with other trends in Haiti.

To this end, the Haiti Climate Security Working Group was constituted in 2022, initiating a collaborative approach aimed at producing an introductory study on climate security in Haiti. Conducted by adelphi researchers in close collaboration with the Haiti Climate Security Working Group, the study outlines the state of the environment and climate change in the country. In particular, the study looks at past, current and future trends, and explores how these trends interact with pre-existing drivers of insecurity (understood in terms of a people-centred and holistic approach to human security).

Using a multi-disciplinary, context-based, locally grounded and intersectional methodology, this study found five interrelated pathways through which the impacts of climate change compound insecurity in Haiti, thereby affecting food systems, livelihoods, community relations and social cohesion, which in turn contribute to violence and conflict.

These five pathways are:

1. Climate-induced natural hazards cause disasters that not only directly threaten Haitians' survival, but also exacerbate pre-existing governance challenges that hinder response and prevention efforts in the immediate and long term.

2. Climate change impacts and environmental degradation push people into harmful adaptation practices that constitute environmental crimes and exacerbate competition over natural resources.

3. Climate change and environmental degradation are drivers of internal and external migration; as people increasingly leave their communities and families, coping mechanisms built on social cohesion and mutual aid are eroded.

4. Climate and environmental pressures put livelihoods and protection systems at risk, especially for young people and children, exposing them to violence, exploitation and abuse.

5. Institutional fragility and widespread violence in Haiti further intensify climate and environmental risks, which undermine the implementation of effective climate action and jeopardise the country's access to critical climate finance opportunities.

Building on these climate security risk pathways, the report presents some of the responses that have so far been put in place to address climate impacts and related insecurity dynamics in Haiti, and lessons learned from them. The report shows that, over the last few years, several attempts have been made to address climate change impacts, mainly by supporting adaptation actions, as well as through conflict prevention and peacebuilding interventions. These efforts have mostly been undertaken by community-level organisations and associations, as well as Haitian and international non-governmental organisations, and UN agencies. At the governmental level, critically important strategies and plans for climate change adaptation in various sectors have been issued, although their implementation lags behind. Among all actors, however, there has been limited acknowledgement of and even less action to address the linkages between climate change impacts, environmental degradation, and violence and insecurity.

The current situation is unbearable for Haitians. While it is certain that "something" needs to be done, agreement on what this "something" should entail and who should drive this "something" is far from clear. Without a completely fresh approach to tackling the impacts of climate and environmental challenges on the country and its people, Haiti is doomed to spiral into further chaos, with current dynamics of exclusion, poverty and desperation tragically deteriorating. In other words, addressing the complex and multidimensional challenges (climate and environmental, security, political, economic, and humanitarian) that Haiti faces will require a new way to look at them – **a new approach with an explicit focus on climate and peacebuilding, and with inclusion at its heart**.

To realise this approach, this study recommends four priority areas for action:

1. **Building a high-level vision through multi-sectoral dialogue** that places climate security, and the protection and restoration of the environment at the centre of economic, political and social decision-making. Such a vision should be accompanied by a strategy that lays out a plan for the distribution of resources over the next 10–15 years, and prioritises environmental and climate concerns, as well as the broader social and economic needs of rural and urban communities in Haiti. Critically, the design and implementation of such a strategy should reflect the priorities and values of all Haitians, and take advantage of opportunities for cooperation with regional and international partners.

2. **Decentralising responses and empowering local communities** to ensure that responses to the multiple crises that Haiti faces come from Haitian themselves. International donors and implementers should work more explicitly with Haitians to design, implement, and monitor and evaluate integrated approaches that address climate security challenges. Haitians should be approached as rights holders rather than passive recipients of charity, and clear recourse and accountability mechanisms should be embedded in all programmes.

3. **Rebuilding the link between Haitians and their natural environment** as an entry point to tackle broader insecurity and violence dynamics. This should be done through community-based responses to environmental management and sustainability that have nature-based solutions at their core, including agroecological approaches, afforestation projects, sustainable charcoal production practices, marine resource protection, effective water management and the creation of green jobs. These initiatives should have a strong focus on inclusivity, capacity building and empowerment to better integrate Haitian women, young people and other marginalised groups.

4. **Increasing and targeting funding to address climate security challenges,** requiring multilateral and bilateral donors to request project proposals that deliver climate and security benefits, and ensure that projects are informed by conflict- and climate-sensitive analysis, are locally led, and include a diverse range of stakeholders. Greater coordination between and within donors is needed to avoid the duplication of efforts and dispersion of funds. In addition, contingency mechanisms are required to ensure the necessary flexibility and adaptability when responding to deteriorating security conditions and governance challenges.

List of abbreviations

BINUH	UN Integrated Office in Haiti
CASEC	Communal administrative council
CBO	Community-based organisation
CCPC	Municipal Civil Protection Committees (Comités Communaux de Protection Civile)
CIAT	Comité Interministériel d'aménagement du Territoire
CIF	Climate Investment Funds
CSO	Civil society organisation
DGI	Directorate General of Taxes
DGPC	General Directorate of Civil Protection
DRM	Disaster risk management
DSC	Public Security Directorate
ENSO	El Niño Southern Oscillation
EWS	Early warning systems
FDI	Foreign direct investment
FGD	Focus group discussion
GBV	Gender-based violence
GCF	Green Climate Fund
GDP	Gross domestic product
GEF	Global Environment Facility
HDI	Human Development Index
INARA	National Institute for Agrarian Reform
IDP	Internally displaced persons
INGO	International non-governmental organisation
IOM	International Organization for Migration
IPC	Integrated Food Security Phase Classification
IPCC	Intergovernmental Panel on Climate Change
ILO	International Labour Organisation
LAC	Latin America and Caribbean
LGBTQI+	Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex
MARNDR	Ministry of Agriculture, Natural Resources and Rural Development
MDE	Ministry of the Environment
MEF	Ministry of Finance (Ministère de l'Économie et des Finances)
MINUJUSTH	United Nations Mission in Support of Justice in Haiti
MINUSTAH	United Nations Stabilisation Mission in Haiti

MSF	Médecins Sans Frontières
MSS	Multinational Security Support
MTPTC	Ministry of Public Works, Transport and Communications
NAP	National Adaptation Plan
NBS	Nature-based solutions
NCC	National Committee on Climate Change
NGO	Non-governmental organisation
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
ODA	Official development assistance
OHCHR	Office of the United Nations High Commissioner for Human Rights
ONACA	Office Nationale du Cadastre
PBF	UN Secretary-General's Peacebuilding Fund
PDL	Partenariat pour le Developpement Local
PIK	Potsdam Institute for Climate Impact Research
PNCC	National Climate Change Policy
PNGRD	National Disaster Risk Management Plan
PNH	Haitian National Police (Police Nationale d'Haïti)
PSDH	Strategic Development Plan of Haiti
PTSD	Post-traumatic stress disorder
SDGs	Sustainable Development Goals
SGBV	Sexual and gender-based violence
SIDS	Small-Island developing states
SNGRD	Système National de Gestion des Risques et des Désastres
SOIL	Sustainable Organic Integrated Livelihoods
SOKIJA	Cultural Society of Haitian Youth
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
US	United States
USAID	United States Agency for International Development
WFP	World Food Programme
WMO	World Meteorological Organisation

Introduction and methodology

Why this study?

Haiti is the most vulnerable country in Latin America and the Caribbean to climate change.[1] Already today, Haiti experiences significant climate change risks, including rising temperatures, declining rainfall, the expansion of hot days, more intense hurricanes, and rising sea levels that threaten to compound coastal erosion and flooding. These risks are all set to intensify over the next 30 years (World Bank 2021).

Moreover, in Haiti, climate change impacts combine with dire environmental degradation and natural hazards – earthquakes are tragically a common occurrence on the island. Critically, these impacts exacerbate the deep political crisis and socioeconomic divisions that have characterised the country for decades, and are rooted in the country's history of enslavement and colonialism (and subsequent neocolonial policies), and continue to fuel violence and human rights violations to this day.

Over the years, attempts to achieve transformative change, including international interventions, have had very limited impact on Haiti's stability. Some of these attempts have even caused additional grievances among segments of Haitian society, at times resulting in open and violent resistance to the state and international actors. Today, Haiti faces economic, political and security collapse. For Haitians, and especially the most vulnerable and marginalised, accessing food, drinking water, sanitation services, basic education, decent housing and jobs has become a daily struggle.

The interlinkages between environmental degradation, peace and security are not new to Haiti. Expert observers repeatedly warned that Haiti's ecological crisis was a "time bomb" that needed to be addressed to prevent instability (ICG 2009). With the effects of climate change, existing trends around vulnerability and resilience in rural and urban Haiti will worsen, and new conflict dynamics and mobility patterns may emerge.

Therefore, if policymakers are to not only mitigate the worst impacts of climate change, but also mitigate the growing insecurity it is fuelling, it is essential to look at how climate change interacts and converges with other trends in Haiti. In other words, a better understanding of the links between climate change, environmental degradation, insecurity and violence is required. Such an understanding is crucial to begin formulating solutions that can transition the country and its populace away from the present state of crisis, and onto a path of sustainable development and peace.

To this end, at the initiative of the United Nations (UN) and Haiti's Ministry of the Environment (MDE), the Haiti Climate Security Working Group was constituted in 2022. The working group comprises more than 90 UN agencies, international organisations, Haitian government institutions and civil society organisations (CSOs) (see full list in annex 1). The formation of the working group initiated a collaborative approach aimed at producing an introductory study on climate security in Haiti. In this first phase, the study aims to raise awareness about and accelerate adaptation to the impacts of climate change and environmental degradation across various dimensions of security, while strengthening resilience and transitioning the country towards a path of sustainable development.

[1] In 2020, Haiti ranked as the 33rd most vulnerable country and the 184th most ready country, ranking 168th overall and the lowest in the LAC region (ND-GAIN 2023).

Methodology

This report presents the results of a multi-level climate security risk assessment, which was conducted by adelphi researchers in close collaboration with the members of Haiti's Climate Security Working Group. Three overarching questions guided the assessment:

1. In what ways and under what circumstances will climate change affect peace and security in Haiti, and how?

2. What concrete actions can be scaled up or identified to prevent and reduce climate-related security risks?

3. What capacities and resources are available or needed to implement these actions?

The Weathering Risk methodology (Rüttinger et al. 2021), which combines climate impact analysis with an in-depth contextual analysis of climate-related security risks, was used to answer these questions. Researchers adopted an intersectional approach – sensitive to gender, age, socioeconomic status and conflict – to ensure that the differential risks and resilience-building opportunities faced by different members of society were taken into account.

The applied analytical framework is based on the concept of **human security**, which is people-centred, and includes economic, food, health, environmental, personal, community and political security (UNDP 2006) – as opposed to security defined narrowly in a politico-military way as conflict.[2] **Climate-related security risks** are accordingly defined as those driven by one or more climate stressors that have certain direct and/or indirect impacts on human security, and thus challenge the peace and stability of states and societies (Rüttinger et al. 2021). They are systemic risks that emerge through complex interactions between climate change, and various social, economic, environmental, demographic and political factors, which are clustered and described through specific **impact pathways**. Importantly, this approach seeks to identify not only risks, but also dimensions of resilience across different groups and communities.

The analysis of the impact pathways and dimensions of resilience was informed by semi-structured interviews with representatives of Haitian CSOs, Haitian and international non-governmental organisations (NGOs), UN agencies, government officials, and researchers. Additional interviews were conducted with people from various backgrounds (e.g. environmental activists, peacebuilders, agronomists, market sellers and students) as well as neighbourhoods in Port-au-Prince, with a focus on those most affected by gang violence. A total of 31 interviews were conducted, mostly remotely and partly in person.[3] Moreover, 11 focus group discussions (FGDs) were held with people engaged in farming, fishing and trade, as well as community leaders and CSOs in the South, Grand'Anse, North, North-East and Nippes departments. A further FGD was conducted with vulnerable young people in Cité Soleil.[4] A full list of the interviews and FGDs conducted is presented in annex 2.

Respondents included both men and women, young and elderly people, people with disabilities, internally displaced persons, and migrants. Interviews took place in English, French and Haitian Kreyol. While the report refers to specific interviews where possible, in some cases the source is not specified for privacy and security reasons. Additional desk research and discussions with the Haiti Climate

[2] The framework relies on the OECD definition of instability and fragility, namely "the combination of exposure to risk and insufficient coping capacity of the state, system, and/or communities to manage, absorb, and mitigate those risks" (Desai and Forsberg 2020). Political instability, (organised) crime, urban violence, terrorism and violent conflict are different ways in which insecurity manifests, and are all covered by the framework.

[3] Due to difficulties in accessing certain areas as a consequence of insecurity and gang presence, the research team conducted most of the interviews remotely (e.g. via WhatsApp, Zoom or Teams). The interviews were conducted by the research team, with the support of a Haiti-based consultant for the interviews in Port-au-Prince.

[4] The FGDs were conducted by NLD Construction, a Haitian NGO, in partnership with UNEP. FGDs were held in the following municipalities: Port Salut, Fonds des Blancs, Puits Sales (South); Gommiers, Leon, BonBon (Grand'Anse); Limonade (North); Terriers Rouge, Trou-du-Nord (North-East); and Nippes. The FGDs held in Cité Soleil was conducted by Concern Worldwide Haiti.

Security Working Group were conducted to supplement and validate the information gathered through the interviews and FGDs.

The report further draws on historical analysis and future projections of climate change impacts in Haiti conducted by researchers at the Potsdam Institute for Climate Impact Research (PIK). These are based on the methodology and products developed within PIK's AGRICA project, providing regionally explicit information about current and future climate change, and sectoral impacts under different climate change scenarios. The underlying data and analyses draw on PIK's Inter-Sectoral Impact Model Intercomparison Project (Frieler et al. 2017).

The limitations of this study include issues of security and access, which restricted the choice of research locations in Haiti. Consequently, not all the departments could be covered by the research process. This limitation was compounded by the short timeframe of the study. Nevertheless, the research team has tried to ensure as comprehensive a geographic coverage as feasible, and to include both rural and urban locations to the extent possible. Moreover, despite a deliberate effort to ensure the gender balance of participants in the FGDs and key expert interviews, structural constraints made this difficult at times. Finally, climate and environmental data from observations were only partially available. This is due to the limited number of weather stations in Haiti, which limits the observational data included in existing gridded datasets.

Overview of the study

After providing an overview of the Haitian context, and key political and socioeconomic dynamics, the report outlines the state of the environment and climate change in Haiti, examining past, current and future trends. Building on this background, the report outlines five key climate security pathways that emerged from the interviews and consultations conducted in Haiti, as well as from the existing literature. The report goes on to present some of the responses to addressing climate impacts and related insecurity dynamics in the country that have so far been implemented, and the lessons learned from them. Finally, a set of recommendations aims to present key priorities for a fresh approach among international donors, NGOs, UN agencies, the Haitian government, civil society and academia. These recommendations aim to address the linkages between climate and insecurity, with a view to the country transitioning beyond the present constant state of crisis, and onto a path of sustainable development and peace.

Figure 1. Kaskad Manman Dlo during dry season © Foundation Seguin

Context and trends in Haiti

This chapter provides an overview of the political, socioeconomic and security context in Haiti. The chapter's intent is not to offer comprehensive detail but rather to provide sufficient background to contextualise the subsequent findings. The chapter begins by outlining the multidimensional and complex crisis situation that Haiti currently faces, including gang-driven insecurity and violence, persistent political instability, and the tragic humanitarian conditions that Haitians have to endure on a daily basis. The chapter then goes on to describe other ongoing trends in the country, including economic precarity, migration and displacement, changes to demographics, and patterns of social exclusion and gender discrimination.

"When I moved back here in 2011, I said that eventually there will be a civil war. The country is too divided, and the disparity between rich and poor is too great" - Haitian security expert, interviewed for this study.

Nobody is safe

Haitians are living through a security crisis. Since the assassination of President Jovenel Moïse in July 2021, the country has experienced the most extreme bout of violence in its history. Today, there are about 200 gangs in Haiti, with each gang comprising 300–500 members, excluding collaborators.[5] More than half of these gangs operate in the capital city of Port-au-Prince where they control approximately 80 per cent of the territory, including areas that were previously considered safe, such as Kenscoff and Pétion Ville (ICG 2022; Global Initiative 2022). Other parts of the country, such as the Artibonite Department, are also now affected by gang violence (BINUH and OHCHR 2023a). Overall, gangs are reportedly present in 63 communes across the country, including communes considered strategic for electoral, economic, drug-trafficking and smuggling purposes (Global Initiative 2022). Until recently, gangs in Haiti were rarely more than small local groups. However, towards the middle of 2020, they started coalescing into larger structures through formal and informal alliances. Currently, the two main gang alliances are the G9 *an Fanmi e Alye*, led by the notorious former police officer Jimmy "Barbecue" Chérizier, and the GPèp, led by Gabriel Jean Pierre, known as Ti Gabriel (Global Initiative 2022; Felbab-Brown 2023). These two gang alliances have repeatedly confronted each other in several neighbourhoods in Port-au-Prince, causing unprecedented violence.

Gang-related violence is not a new phenomenon in Haiti. The deployment of armed groups has been a core component of Haitian politics since the 1950s, when former President François Duvalier created a personal militia, the *Tonton Macoutes*, to suppress opponents of the regime. In the 1980s, most Haitian governments tolerated and/or used gangs – then operating primarily in Port-au-Prince's poorest neighbourhoods – for their own political purposes, including to influence the outcome of elections through bribery and intimidation, and to disrupt opponents by fomenting protests and destroying polling stations in districts where their candidate was set to lose (Global Initiative 2022). Following the 2010 earthquake, many self-defence groups were taken over by younger, less politically motivated gangs that were more likely to raid other gangs' territories in a fight for turf – although political ties remain important in certain cases.[6] It is these loosely organised groups, largely made up of young people from poor neighbourhoods, some forcibly recruited, that have developed into the established gangs that we see today (Global Initiative 2022).

[5] Although no exact data is available, and the authors understand that the numbers cited here are disputed by some segments of Haitian civil society and human rights organisations.

[6] For example, human rights groups in Haiti have pointed to evidence of links between the G9 group and the ruling political party, the Parti Haïtien Tèt Kale (PHTK), including in the context of the violence in La Saline (in November 2018), Bel-Air (in September 2019) and Cite Soleil (between May and July 2020) (Harvard Law School 2021).

The expansion and further empowerment of gangs has been facilitated by the support and complicity of segments of Haiti's political and business elites. Evidence of this has led the United Nations to impose a slew of sanctions on individuals involved in organised crime and their financiers.[7] The United States and Canada have followed suit, sanctioning current and former Haitian politicians and businessmen for financing gangs, as well as corruption, drug trafficking and money laundering (Shuldiner 2022; Shuldiner and Dalby 2023). At the same time, the internal security response to gang violence has been inadequate to the scale of the problem. Haiti's army, disbanded in the mid-1990s for interfering in politics, has been slowly reconstituted. However, at present, it is only 500 members strong (UNODC 2023).[8] Despite years of international funding and training, with 9,000 active police officers, the Haitian National Police (Police Nationale d'Haiti, PNH)[9] has been unable to overcome Haiti's gangs, which are significantly better equipped, paid and organised (UNODC 2023; Felbab-Brown 2023).[10] Between July 2021 (when Prime Minister Ariel Henry took office) and January 2022, at least 78 officers were killed by gangs (RNDDH 2023).[11] Meanwhile, various PNH commanders have for years colluded with gangs to collect revenues and promote their superiors' political objectives (ICG 2022; Felbab-Brown 2023).

Given this context of impunity, and gangs' improved organisational structures and access to weapons, the reach of gangs has soared (Felbab-Brown 2023). Gangs rule over stretches of key roads,[12] which has disrupted supply chains and increased the costs of transporting goods, driving up food prices and exhausting stores of essential items (Da Rin 2023). Gangs also dominate the commercial district of Port-au-Prince and the industrial zone, especially the warehouses and factories along the road to the Toussaint Louverture International Airport, where they extract taxes from merchants and solicit funding from private businesses in exchange for protection (Global Initiative 2022). Gangs have blockaded Haiti's main oil terminal on two occasions, creating fuel shortages that have forced hospitals to cut back on services, petrol stations to close, and banks and grocery stores to restrict opening hours (Al Jazeera 2022).

Moreover, gang tactics have changed, with gangs shifting towards more predatory operational modes (FEWS-NET 2022; ICG 2022). Since the beginning of 2023, 1,634 people have been killed, injured or kidnapped in gang-related incidents, with men accounting for 80 per cent of the victims, women 17 per cent and children 3 per cent (BINUH and OHCHR 2023b). Twenty massacres have been documented in the last five years, perpetrated by gangs in impoverished parts of the capital, such as La Saline, Bel-Air, Cité Soleil and Source Matelas; no charges have been issued in connection to these killings (Harvard Law School 2021; Haiti Libre 2022). About 400 cases of kidnapping were documented in the first three months of 2023, up 72 per cent from 2022 (CARDH 2023). In October 2022, BINUH and OHCHR released a joint report that identified gangs' use of rape, including collective rape, and other forms of sexual violence to spread fear, and punish, subjugate and inflict suffering on local populations, with the ultimate goal of expanding their influence throughout Port-au-Prince (BINUH and OHCHR 2022).

Gang members are mostly men and mostly young (between 15 and 30 years old). Children have typically been used in supporting roles, such as lookouts, and couriers for arms and drugs. However, escalating warfare in recent years has led to children as young as 10 years old being recruited for street

[7] Under UN Security Council Resolution 2563 (2022).

[8] Haiti's military was disbanded in 1995 after it participated in multiple coups and was accused of other political interference. The armed forces were reinstated by President Jovenel Moïse in 2017 after the United Nations ended its peacekeeping operation in Haiti.

[9] As of late 2022, there were an estimated 14,161 PNH personnel, though BINUH assessed that its operational strength was closer to 13,000 and fewer than 9,000 were on active duty. Overall, the PNH has a ratio of 1.06 officers per 1,000 residents, well below the 2.2 per 1,000 recommended by the United Nations (UNODC 2023).

[10] According to the Superior Council of the National Police, the PNH registered just 38,000 "legal" firearms in 2015, less than 15 per cent of the estimated national stock at the time. Assuming these figures are even remotely accurate, they imply that Haiti's law enforcement agents are significantly outgunned by Haitian residents, private security company personnel and armed gangs (UNODC 2023).

[11] This has provoked strikes protesting against dangerous working conditions and a perceived lack of government support (Taylor 2023; Shuldiner and Dalby 2023).

[12] Major roads are under gang control, including the road passing through Martissant and leading to the south of the country (linking the capital Port-au-Prince with key agricultural areas), the road running east towards the Dominican Republic, and the road running north, as well as secondary major roads. See: Ellsworth 2022; Famine Early Warning Systems Network 2022.

battles. Many underage gang members joined willingly, seeking emotional belonging, as well as food and shelter (Ford 2022). Indeed, for many young people being part of a gang is the only real and perceived path out of poverty, as well as a way to regain control over their lives, and obtain social respect and protection for their family (Global Initiative 2022). Some women have also been forcibly recruited, or have joined gangs for protection or work, earning money by collecting information or stealing from homes. There have been attempts by women to form their own gang or affiliate with other gangs, although often with deadly consequences (DiPierro Obert 2022).[13]

"Most of the youth in the neighbourhood are no longer here. There is not a day that goes by without someone being killed; they have to leave the country if they want to survive." – an activist in Cité Soleil, interviewed for this study.

Political turmoil in Haiti

On top of (and linked to) the security crisis, Haiti is in the midst of a political crisis. The brazen assassination of former President Jovenel Moïse (still unresolved, despite many arrests)[14] at his residence in July 2021, followed by a devastating earthquake one month later, deepened the already existing crisis of which the assassination was a symptom (Page 2023).[15] The current prime minister, Ariel Henry, who assumed office after Jovenel Moïse's assassination with the support of the Core Group,[16] has not received parliamentary approval. Since 10 January 2023, when the term of Haiti's 10 senators expired, no member of the House of Representatives or the Senate has been elected. No elections – including local elections for municipal offices – have been held in the country since 2017. Haiti's justice system is barely functional, which further reduces access to justice for Haitians and compounds chronic impunity.[17] Social unrest is increasingly common. For example, in September 2022, when Prime Minister Henry lifted the fuel subsidies, causing a spike in food prices, protests erupted in several cities across Haiti – from Port-au-Prince to the usually tranquil cities of Gonaïves in the north and Jérémie in the southwest – demonstrating widespread popular dissatisfaction with the government (Al Jazeera 2022; Méracourt and Coletta 2022).

In December 2022, to overcome the political impasse, the government announced a transition plan, known as the December 21 agreement.[18] The plan envisions elections in February 2024, the creation of an interim high transitional council advised by civil society, reform of the Supreme Court and the electoral commission, and the initiation of a process of constitutional reform (Security Council Report 2023). The United Nations subsequently reported that a series of multi-stakeholder discussions among signatories and non-signatories had been launched by the government, aimed at developing a detailed roadmap for transition (BINUH 2023). However, many of the signatories of the December 21 agreement have subsequently criticised the agreement for various reasons, including its failed dialogue

[13] In April 2022, 17 women who called themselves *Baz Koko Fè* (or "Iron Pussy") and were affiliated with another gang called *Chen Mechan* (or "Evil Dogs") were allegedly raped and killed by the *400 Mawozo* gang, according to the National Human Rights Network (DiPierro Obert 2022).

[14] As of April 2023, at least 20 suspects were in US custody and more than 40 suspects had been arrested in Haiti. See, for example: Al Jazeera (2023); Debusmann Jr (2023).

[15] The failure to hold elections for the vacant seats in the two chambers of the Haitian parliament in October 2019 resulted in a political and constitutional crisis, and a steady slide into rule by presidential decree (Reuters 2020; ICG 2021).

[16] The Core Group is an informal intergovernmental organization involved in the politics of Haiti. It is made up of representatives of the United Nations, Brazil, Canada, France, Germany, Spain, the European Union, the United States and the Organization of American States.

[17] Only three out of 12 Supreme Court of Justice justices are still working, which means that the country's highest court lacks a quorum to function. The appointment of many new magistrates has been postponed, which is slowing down the processing of cases and further undermining the already weak judicial system. Moreover, some advocates and judicial actors have expressed concern that appointments are being made based on political affiliations, further eroding the autonomy and independence of the judiciary (IJDH 2022).

[18] On 21 December 2022, Prime Minister Ariel Henry – together with representatives of political parties, CSOs and the private sector – signed The National Consensus for an Inclusive Transition and Transparent Elections. Published in Haiti's official newspaper Le Moniteur on 3 January 2023, the document outlines necessary steps for holding elections in the country. In particular, the document stipulates a 14-month transition period, which will encompass general elections in 2023 and subsequently the entry into office of a newly elected government on 7 February 2024. Furthermore, the document envisions the establishment of a "high transitional council" and a "control body for government action," which will be responsible for promoting political dialogue among various factions and ensuring the proper functioning of public institutions during the transition period, respectively. Under Article 3, the signatories to the document have expressed their support for the immediate deployment of international security assistance, as requested by Prime Minister Henry on 7 October 2022 (Security Council Report 2023).

promise (IJDH 2023).[19] Meanwhile, members of the Montana Accord Group, a coalition of Haitian NGOs, civil society members and politicians,[20] have rejected this plan as illegitimate and called for a "Haitian-led solution" as the only durable and convincing path out of the crisis (Mohor 2023; Security Council Report 2023).

Haiti's political crisis is also – and importantly – rooted in the country's past (see box 1). Historically, Haiti has always had a small economic elite that, rather than supporting the state, has lived at its expense, adopting corruption, smuggling and bribery as its preferred modes of operation. Consequently, the state has been able to make only negligible investments in basic public infrastructure, especially in rural areas, including the provision of justice, education and healthcare (Singh et al. 2015; Felbab-Brown 2023). The unrelenting socioeconomic and political shocks that have affected the country since its independence have also weakened the capacity of the state to direct its resources to long-term development objectives and have made it more difficult to effectively manage spikes in aid flow (Cotton et al. 2023). As a consequence, Haitians, and especially those living in rural areas, have developed a sense of distrust in the state and its institutions, further fomented by cases of corruption, with the 2018 PetroCaribe scandal being the most recent high-profile example (Global Initiative 2022; ICG 2022).[21]

Haitians' distrust of the state is paralleled by their distrust of foreign powers intervening in domestic issues. This largely comes as a result of Haiti's well-documented, lengthy and tragic colonial legacy, as well as more recent experiences of foreign interventions (see box 2). From the prohibitive reparations that the country was forced to pay to France (see box 1) to decades of US occupation that exacerbated rather than mitigated political instability to the more recent case of UN Stabilisation Mission in Haiti (MINUSTAH) misconduct, which triggered one of the deadliest cholera epidemics of modern history, and was associated with sexual abuse and other violence towards civilians (Labrador and Roy 2022; Wisner 2019; Park 2019), the prevalent perspective within Haiti is that foreign interventions lead to disaster (Bhatia 2022; Peralta 2022).

This lack of trust complicates efforts to find solutions to the country's current security crisis (Fauriol 2022). In October 2022, Prime Minister Ariel Henry's government called for foreign intervention to break the gangs' siege and restore basic functionality. This prompted the UN secretary general to send an assessment mission to Haiti, which suggested the deployment of an international specialised armed force as a possible response (Dujarric 2022). The proposal, however, was met with scepticism by the Haitian opposition, as well as many Haitians who have bitter memories of external military forces exacerbating the country's problems. Moreover, while foreign powers, and especially those in the Core Group have been very vocal about the need to help Haiti, they have not put forward a concrete strategy and have shown very little appetite to be involved. As of August 2023, only Kenya had come forward to offer to lead a multinational police force in Haiti, with Jamaica and the Bahamas expressing willingness to contribute to it (Sharp 2023; Nichols 2023).[22] In the meantime, members of the Core Group have sanctioned Haitian politicians and gang leaders, and sent armoured vehicles to the PNH (BINUH 2023; Felbab-Brown 2023). Overall, however, a comprehensive solution to Haiti's political and security crisis remains well out of sight.

[19] Other criticisms referred to the agreement not being the product of a national consensus and its failure to provide a mechanism for power sharing, thereby keeping Prime Minister Ariel Henry in power for at least one more year. See: IJDH 2023.

[20] In August 2021, after the assassination of Jovenel Moise, a 13-member civil society-led commission, the Montana Accord Group, came together to address the ongoing political crisis in the country. The Montana Accord garnered the backing of over 650 Haitian organisations and individual signatories, including members of most major political parties, the Catholic and Protestant churches, women's and youth organizations, labour unions, chambers of commerce, human rights groups, the media, businesses and social elites. Among its major provisions is a call for a transitional government to take over from Prime Minister Ariel Henry and hold elections (Page 2022).

[21] Under PetroCaribe, a strategic oil alliance signed with Venezuela in 2006, Haiti was able to import Venezuelan oil, but defer payment for up to 25 years, freeing up revenue to develop the economy and fund social programmes. Government officials claimed they had provided USD 4 billion in funding to 400 projects. However, Haitians felt there was little to show for the funding. Indeed, a 2017 audit requested by the Senate found evidence of corruption over the course of three administrations. In 2020, Haiti's High Court of Auditors released a report claiming USD 2 billion was mismanaged between 2008 and 2016 (Global Initiative 2022). To date, the alleged scandal has yet to result in a single prosecution.

[22] As of August 2023, the UN Security Council declared it would vote on a resolution authorising the multinational force for Haiti "in the coming weeks" (Sharp 2023).

Box 1: Political history of Haiti

Haiti has experienced several centuries of political instability. In 1804, Haiti declared its independence, marking the culmination of a series of revolts against slavery and French rule. The revolts were led by so-called *affranchis* ("free mulattoes," meaning people of mixed African and European descent) and slaves (largely of African descent). Beginning in 1791, the revolts ended more than a century of colonisation. Thus, Haiti became the first post-colonial black republic in the world. However, the new state remained profoundly divided between the new political elite, dominated by the leaders of the revolution (largely mulattoes), and the rest of the population, which was utterly destitute – a legacy of slavery that has continued to have a profound impact on Haitian history. It was not until 1825 that France recognised Haiti's independence, and then only in exchange for a large indemnity of 150 million francs (about USD 560 million today). Estimates suggest that the cost of paying this indemnity has reduced Haiti's GDP by USD 21 billion (not accounting for lost development) (Métheut 2022).

In the 20th century, Haiti experienced several episodes of foreign intervention, including from the United States in 1915, which lasted for almost 20 years. The US intervention sought to protect US economic interests and maintain political stability, often favouring business-friendly and anti-communist leaders such as the Duvaliers. In 1957, François Duvalier took power and established a brutal authoritarian regime, characterised by political repression, corruption and violence. He was succeeded by his son, Jean-Claude Duvalier, in 1971. However, Jean-Claude Duvalier was overthrown in 1986 following a popular revolt. A period of tentative democratic transition followed. In 1990, Haiti held its first democratic elections, which brought Jean-Bertrand Aristide to power. However, his mandate was interrupted by a military coup in 1991, followed by an international intervention to reinstate Aristide in 1994. This period witnessed successful transfers of power, increased participation in parliamentary and local elections, improvements in the justice system, advancements in public education and healthcare, and the deployment of civilian police, demonstrating progress in Haiti's democracy. Aristide was re-elected in 2000, but faced another coup in 2004, which involved international support from several countries (Larousse 2023).

The devastating 2010 earthquake further complicated the political landscape, with an influx of NGOs side-lining the Haitian state. The assassination of President Jovenel Moïse in 2021 exacerbated tensions and instability even further. Consequently, the current government faces significant challenges in restoring peace and stability, and organising democratic elections (Rfi 2022).

Figure 2. Planting techniques that promote erosion on hill and mountainsides © Foundation Seguin

Box 2: Major foreign interventions in Haiti since 1915

- **1915–1934**: US occupation in Haiti to protect US economic interests and establish a US-friendly government.
- **1993–1996**: US intervention and UN mission to restore President Aristide.
- **2004–2017**: UN Stabilisation Mission in Haiti (MINUSTAH).
- **2010**: International humanitarian response to the 2010 earthquake set up to provide aid and support to victims.
- **2017–2019**: Replacement of MINUSTAH by the UN Mission for Justice Support in Haiti (MINUJUSTH).
- **2019**: Establishment of the UN Integrated Office in Haiti (BINUH), a special political mission, through UN Security Council resolution 2476 of 25 June 2019.
- **2023**: Establishment of the Multinational Security Support (MSS) mission (a non-UN mission, authorised by UN Security Council through resolution 2699).

An unfolding humanitarian catastrophe

For Haitians, the current political and security crisis is foremost a humanitarian crisis. Recent disasters caused by natural hazards, coupled with pre-existing vulnerabilities, a deteriorating socioeconomic situation and increases in gang violence, have dramatically amplified Haiti's humanitarian needs. At present, according to the UN Office for the Coordination of Humanitarian Affairs (OCHA), more than 42 per cent of Haiti's population requires humanitarian assistance – this number has nearly doubled over the last four years, from 2.6 million in 2019 to 5.2 million in 2022 (OCHA 2023b; UN Women 2022; USAID 2023). Almost half of rural households (45 per cent) were found to have very extreme unmet needs, compared to 28 per cent of urban households. In total, 83 per cent of households in Haiti were found to have extreme or very extreme unmet needs (REACH 2022).[23] It is estimated that the United Nations and its partners will need USD 720 million in 2023 to help people in Haiti; this is double the sum appealed for 2022 and the highest amount since the 2010 earthquake (OCHA 2023b).

Food insecurity is at an all-time high. According to the Integrated Food Security Phase Classification (IPC) analysis covering March to June 2023, a record 4.9 million people face acute hunger (IPC 3 and above), 1.8 million people are in emergency phase (IPC phase 4) and, for the first time ever in Haiti, 19,000 people are in catastrophe phase (IPC phase 5) (WFP 2023b). Approximately four million Haitians survive on less than two meals per day (Delva and Moloney 2022). The World Food Programme (WFP) called Haiti's current food crisis the most severe, unprecedented situation of food insecurity that the Americas have ever seen (WFP 2023a). This situation compounds the already dire lack of basic services. Over a third of the population (35 per cent) have no access to clean water and two thirds (65 per cent) have limited or no sanitation services (JMP 2021). These percentages are higher in urban slums. In Cité Soleil, for example, 55 per cent of people do not have access to clean water (Coordination Nationale de la Securité Alimentaire 2022).

In October 2022, cholera resurfaced in Haiti, after a three-year absence.[24] The first cases were recorded in Cité Soleil's Brooklyn neighbourhood and have been attributed to the deterioration of the health environment as a consequence of gang activity (OHCHR 2023; Da Rin 2023).[25] Indeed, the healthcare

[23] The different levels of severity are defined by REACH as follows: "very extreme unmet needs" indicates a total collapse in living standards, with potentially life-threatening consequences (increased risk of mortality, and/or irreversible damage to physical or mental well-being); "extreme" indicates a collapse in living standards, with the risk of significant damage to physical and/or mental well-being (REACH 2022).

[24] The last case of cholera was reported on 15 February 2019.

[25] The OHCHR reported that, according to public health experts, the two main causes of this cholera resurgence were restrictions to the supply of drinking water imposed by the G9 coalition (combined with decades of underfunding of drinking water infrastructure in the commune of Cité Soleil)

system in Haiti suffers from severe shortfalls, and the country's water, sanitation and hygiene infrastructure – which was severely hit by the 2010 earthquake – remains in disarray. Despite plans to improve the situation following the last cholera epidemic, these issues persist (OCHA 2023b; IJDH 2023).[26] These challenges have been exacerbated by the current insecurity situation (with reports of gangs targeting healthcare workers, and patients for kidnappings and attacks) and fuel shortages, allowing cholera to spread virtually unchecked (Human Rights Watch 2022a; IRC 2023; IJDH 2023). As of June 2023, a total of 2,988 confirmed cases, 47,002 suspected cases and 717 deaths had been reported in the country (PAHO 2023). Almost 40 per cent of all cholera cases involved children, which is a particularly worrying trend. In children suffering from malnutrition (as is common in Haiti), the dehydration caused by cholera can lead to organ failure and death within days (UNICEF 2022; IJDH 2022).

In this dramatic context, meeting Haitians' humanitarian needs is extremely difficult due to the pervasive gang violence that plagues the country – as well as the lack of available humanitarian aid. Haiti's healthcare system was brought to its knees when gangs blocked access to Varreux in November 2022.[27] Around three quarters of major hospitals across the country, relying on diesel generators for electricity, reported being unable to provide regular services (UNFPA 2022a). The National Port Authority and other commercial ports are under constant attack by gangs and road transportation remains at risk, with cargo shipping containers and goods being hijacked and stolen. Warehouses used by the UN country teams, including the International Organisation for Migration (IOM), the UN Children's Fund (UNICEF), the UN Development Programme (UNDP) and the WFP, as well as warehouses and facilities run by NGOs, have been attacked and looted. Logistical costs for humanitarian organisations have dramatically increased due to gangs' control of key services (Mohor 2023). This is making it extremely difficult for humanitarian organisations to deliver food and other supplies to Haiti's most vulnerable people (Security Council Report 2023).

Ubiquitous gang-related violence has displaced more than 165,000 people, largely mothers and unaccompanied children who have lost their husbands and fathers, from their homes in Port-au-Prince (USAID 2023; UNFPA 2022a). In contrast to previous humanitarian emergencies of this scale, formal camps with adequate resources have not been created this time. As a result, people who have been unable to find refuge with family members have largely been left to shelter in the countryside or to gather in public squares and other informal sites with little to no humanitarian support (Durroux and Doyle 2022). In July 2022, due to ongoing gang violence in Cité Soleil, dozens of families and children were forced to take refuge in the Hugo Chavez public square of Tabarre, where they had to rely on the kindness of charities and passersby for food and drinking water (Molière 2022). Women and girls living in informal displacement camps are especially vulnerable to gender-based violence (GBV) due to the lack of adequate security measures, and humanitarian services and support (Milfort 2022; IJDH 2022).

"My son has a dream to have a poultry farm, but he does not have the means to start this business. No one here has" – business woman in Abricots, interviewed for this study.

An economy in peril

Haiti is one of the most impoverished countries in the Western Hemisphere (Labrador and Roy 2022). In the 2021 Human Development Index (HDI), Haiti ranked 163rd out of 191 countries, indicating only

and the possible presence of cholera bacteria (*Vibrio cholera*e) in the environment. Battles between the G9 coalition and Gpep, two rival gang alliances, have prevented the collection of waste, which flows into Brooklyn from the capital, and have interrupted the supply of food stuffs and drinking water (Da Rin 2023).

[26] See, for example: UNGA, New Approach to Cholera in Haiti, UN Doc. A/71/895 (3 May 2017).

[27] Varreux is the main fuel terminal in Haiti. In September 2022, the G9 coalition took control of it to protest a planned fuel subsidy reduction tabled by the government. This prevented the distribution of diesel and gasoline for over a month (ICG 2022; Isaac 2022). Specialist Haitian national police units only regained access to the fuel terminal on 3 November following two days of heavy fighting. Access was restored by 5 November, with fuel available for public sale in the Port-au-Prince metropolitan area from 12 November (UNSC 2023).

minimum improvement since 2011 (UNDP 2022). More than 70 per cent of Haitians live below the poverty line and approximately 50 per cent of the population live on less than USD 1.25 per day (Bertelsmann Stiftung 2022). Haiti made marginal progress in poverty reduction until 2018 (World Bank 2014). However, the combined effect of the political crisis, the deterioration of the economic and security conditions, the COVID-19 pandemic, and the August 2021 earthquake have reversed this trend and erased earlier gains (World Bank 2023b). In December 2021, 65 per cent of households experienced a deterioration in their incomes compared to previous years, indicating that the already high poverty rate had risen (World Bank 2023b).

Moreover, income inequality in Haiti, as measured by the Gini coefficient, is among the highest in the world, let alone in the Latin America and Caribbean (LAC) region. According to World Bank estimates, the richest 20 per cent of Haitians hold more than 64 per cent of the country's wealth, while the poorest 20 per cent hold barely 1 per cent (World Bank 2023c). This is largely due to a concentration of resources in the hands of a small but powerful elite, many of whom have dominated entire sectors of the Haitian economy since the Duvalier era, when they were granted monopoly rights over key industries and exclusive import licenses for major consumables (IMF 2020; Singh et al. 2015). Meanwhile, two thirds of the poor live in the countryside and face adverse conditions for agricultural production, which creates a significant welfare gap between urban and rural areas (World Bank 2022). Essentially, in Haiti, a small economic elite controls strategic economic sectors, including the food import and export sector, while life for approximately seven million people remains a daily struggle (Ferenz 2022).

As a free-market system, Haiti's economy has traditionally relied on import agriculture, construction and commerce, as well as the export-oriented clothing assembly industry. Consequently, the country is heavily dependent on external revenue. Between 2010 and 2020, the United Nations allocated more than USD 13 billion in international aid to Haiti, most of which has funded disaster-relief missions and development programmes (Labrador and Roy 2022). Haiti's dependence on donor assistance is significantly higher than the average for low-income countries, and countries affected by fragility, conflict and violence (IFC 2021). However, aid trends have been highly volatile, with large influxes following major disasters, followed by steady declines (World Bank 2023a). Remittances have been another important source of income for Haiti and Haitian families (OCDE/INURED 2017), especially after the 2010 earthquake (when the Haitian diaspora identified as "Haiti's single largest donor"), contributing to more than 23 per cent of GDP by 2022 (Orozco 2022).

The agricultural sector employs about half of the population (40 per cent in 2019), 90 per cent of whom live in rural areas (Bougouma et al. 2021). Most of the agricultural sector in Haiti consists of subsistence farming (most small farmers have less than two hectares of land to feed their families), which is particularly vulnerable to climate change (Sabin et al. 2022). Subsistence farmers typically grow tubers, corn and plantains, and maintain a few fruit trees. In the formal agricultural sector, cereals are the main crop grown, predominantly maize, followed by sorghum and rice (Borde et al. 2015). Vetiver is the third most important agricultural and industrial product for the country. In the South Department, an estimated 12,000 hectares of land are under vetiver cultivation, representing the primary source of income for 60,000 residents (Freeman 2011). Livestock (mainly goats, pigs, chickens and cattle) are also a vital source of nutrition and capital, and provide a valuable asset for investment and insurance purposes (Gorez 2016; USAID 2020c).

The fisheries and aquaculture sectors contribute to only 2.5 per cent of GDP, but are nevertheless considered highly strategic for the Haitian economy, and especially for the social and economic development of coastal and rural communities (UNCTAD 2022). Total fish production in Haiti was estimated to be 19,150 tons in 2018, mostly from marine fisheries, in addition to 2,000 tons from inland fisheries and 1,400 tons from aquaculture (UNCTAD 2022). Artisanal marine fisheries account for over 82 per cent of total fish production. However, it is important to note that reliable information on fish stocks and fishery resources in Haiti is not readily available due to limited research capacity and

the lack of data on fishing activities (UNCTAD 2022). Over 52,000 Haitians earn a living from marine fishing, while inland fisheries and aquaculture employ another 1,500 people, and an additional 60,000 are employed in activities supporting fisheries and aquaculture (UNCTAD 2022; MARNDR 2010). Over 98 per cent of the fish produced in Haiti is consumed locally (UNCTAD 2022).

Other sources of household income in Haiti are trade (61 per cent) and self-employment (21 per cent) (National Food Security Coordination 2022). However, non-farm rural jobs remain scarce, pay little and are often unstable. In 2018, in only 7 per cent of rural households and 29 per cent of urban households did at least one member earn a stable monthly wage. Self-employment is mainly concentrated in low-productivity sectors, such as commerce and construction. Haiti has the highest informal employment rate in the Caribbean. In July 2021, among the employed, about 87 per cent reported being in informal employment – 40 per cent in the agricultural sector and 47 per cent in the urban informal sectors (IFC 2021). The output generated by the informal sector amounts to a staggering 61 per cent of Haiti's GDP (significantly above the LAC regional average of 37 per cent) (IFC 2021). Women face greater barriers than men in accessing high-quality jobs in terms of formality, security and decent wages (IFC 2021).

Today, Haiti's economy is in perilous decline, strained by a series of disasters caused by natural hazards, political instability and the depreciation of the Haitian gourde (Labrador and Roy 2022). Because Haiti's economy is strongly import-oriented, external disruptions in international trade, such as those due to spikes in fuel prices following Russia's invasion of Ukraine, as well as the COVID-19 pandemic, have made the situation worse. As a result, in January 2023, the World Bank forecast a drop of 1.1 per cent in Haiti's GDP – the only country, together with Chile, to register contractions in the LAC region (World Bank 2023b). Haiti's GDP had already contracted by 3.3 per cent in 2020 and 1.8 per cent in 2021 (WFP 2023b). Despite international lenders cancelling Haiti's debt following the 2010 earthquake, borrowing has since risen to about USD 3.57 billion and the country now faces a deficit of HTG 34 billion (nearly USD 238 million) (BRH 2022). Inflation reached 38.7 per cent in September 2022, the highest it has been in a decade, resulting in a dramatic increase in the cost of living, with the price of basic food products doubling over the past year (BRH 2022). Most working Haitians now spend over 60 per cent of their income on food, with families often forced to choose between buying food and sending their children to school (Delva and Moloney 2022).

Figure 3. Floods in Mapou, South Eastern Department of Haiti, after heavy rains © Foundation Seguin

Box 3: Problems related to land ownership in Haiti

Haiti faces major land insecurity, which manifests through the absence of a land registry, the insecurity of existing land titles and the lack of effective land governance. Land conflicts are often violent and can lead to forced displacement.

The Office National du Cadastre (ONACA), under the authority of the Ministry of Public Works, Transport and Communications (MTPTC), is responsible for overseeing the cadastre at the national level (MTPTC 2023). The Directorate General of Taxes (DGI) is responsible for the securitisation of all public land and the collection of taxes on real estate transactions. However, both institutions suffer from a lack of personnel and financial resources, which hampers land law enforcement. The lack of an effective legal and institutional system, and of mechanisms to protect land ownership leads to reduced transparency and security for landholders. Women are particularly vulnerable due to social and cultural norms, discriminatory practices, and legal barriers (FCM 2023). According to recent estimates, 80 per cent of land is held without a clearly established cadastral title (Haiti Red Cross Society 2015). Land transactions are often based on customary practices, particularly in rural areas, bypassing the established (and untrusted) legal system. Land conflicts are frequent, often violent and difficult to resolve.

In response to this challenge, efforts have been made to address land conflicts. The National Institute for Agrarian Reform (INARA), for example, has played a crucial role in promoting mechanisms for consultation and potentially contentious arbitration procedures in areas where land disputes are prevalent. The Interministerial Committee for Territorial Planning, with the support of international partners, has initiated reforms that aim to facilitate the digitisation and indexing of land registers, accompany the process of cadastral and land tenure reform, and provide institutional clarity, ultimately fostering land tenure security in Haiti (Latouche 2019).

Leaving Haiti

"People are no longer able to cultivate their land due to the weather conditions (no rain); and even if they could, they would not be able to sell their crops as the roads to Port-au-Prince are controlled by gangs and there is no gas; so, people just go to the Dominican Republic" – a young agronomist from Jacmel, interviewed for this study.

Throughout Haiti's history, migration – forced (e.g., in the aftermath of disasters) and voluntary – has always featured prominently. In 2015, 1.2 million Haitians were living outside the country. By 2019, more than 1.5 million Haitians (14 per cent of the total population) were living outside the country (Migrant Refugees 2022). In the current context of political instability, economic crisis and violence, this number is destined to increase even further. A recent national survey by the country's Citizen Observatory for Institutionalisation of Democracy found that 82 per cent of Haiti's nearly 12 million people would migrate if they had the chance to do so (Charles and Iglesias 2022). Approximately half of people leaving Haiti migrate to the United States. Another traditional destination for Haitian migrants has been the Dominican Republic due to the geographical proximity of the two countries (Migrant Refugees 2022).[28] Other Caribbean countries such as the Bahamas are also typical destinations. Overall, Haitians are the largest immigrant population in the Caribbean region (53 per

[28] Emigration from Haiti to the Dominican Republic has tended to be temporary, especially since the COVID-19 pandemic due to its impacts on tourism, construction and commerce sectors, where Haitians are mostly employed in the Dominican Republic. However, in recent years, the porosity of borders, lack of regular migration status for Haitians, changes in the system of state regulation of labour migration and lack of opportunities to migrate through official channels has increased irregular emigration to the Dominican Republic (Migrant Refugees 2022).

cent of all immigrants) (Lacarte et al. 2023).[29] Many Haitians have also migrated to Brazil and, after Brazil's economy started to stagnate in 2016, to Chile (OCDE/INURED 2017).[30]

When migration is an option, families and friends typically pool their savings to send one member – usually a young man – abroad. In return, emigrants transfer money (remittances) more or less regularly home to support family and friends (OCDE/INURED 2017). Indeed, the Haitian diaspora plays a critical role in Haiti's access to financial flows. About one third of Haitian families (38 per cent) receive remittances from a relative living abroad. For 20 per cent of urban households and 13 per cent of rural households, remittances constitute the main source of income (RTAC 2021). In 2019, remittances represented more than 36.2 per cent of Haiti's GDP – double the pre-2010 level, with emigration having doubled over the same period (Cela and Marcelin 2020; Orozco 2022).[31] However, remittances reportedly declined in 2022, with in-transit emigrants increasingly unable to reach their destinations and settled emigrants sending less money home than previously (Orozco 2022).

Indeed, emigrating has become an increasingly difficult and dangerous option for Haitians – both for those fleeing political instability, violence and the impacts of disasters caused by natural hazards, and for those emigrating to improve their economic chances and those of their families. For example, since Chile tightened its visa requirements in 2018, many Haitians have made their way to the United States on foot through the jungles of the Darién Gap between Panama and Colombia, where they face food and water shortages, and are vulnerable to extortion and assault, as well as rape and sexual aggression from criminal groups (OHCHR 2022b).[32] Between April and November 2021 alone, Médecins Sans Frontières (MSF) reported that it had treated 288 victims of sexual violence in the Darién Gap, estimating that this figure accounted for only 25 per cent of all cases (MSF 2021). Migrant women and girls tend to be the main victims, although men are targeted as well (Fernández 2023).

Following the 2021 earthquake, with political instability and gang-related violence increasing, tens of thousands more Haitians have made their way to the Mexico-US border, undertaking life-threatening journeys (Murray 2021). Migrants who travel by boat, rather than by air, are frequently vulnerable people from rural areas. Often, they have to sell their possessions or borrow money from loan sharks with high repayment charges to pay for the cost of the crossing, which averages USD 350–700 but can be as high as USD 7,000, depending on the type of boat and destination (UN News 2022b). Some migrants end up stuck in Mexico, and seek refuge in places such as Tijuana and Baja California (Migrant Refugees 2022). Currently, 85 per cent of migrants of Haitian origin in Mexico are unemployed and in search of employment, according to the IOM (IOM 2022a).

Of those that manage to reach the United States, many have been repatriated to Haiti under Title 42 of the US Code, a section of US health law that the administration of former President Donald Trump deployed during the COVID-19 pandemic to deny families, children and adults arriving at the southern border the right to seek asylum in the United States. The administration of President Joe Biden continued to use Title 42 for a while, although the title has since expired (OHCHR 2021; Human Rights Watch 2022b).[33] Those who stay in the United States often face discrimination and exclusion, making it difficult to obtain legal status, and access basic services, decent accommodation and job opportunities (OHCHR 2022b). The Dominican Republic, another common destination for Haitian migrants, ramped up deportations of undocumented Haitians. As of August 2021, more than 178,000

[29] An estimated 496,100 Haitians have settled in the Dominican Republic and 29,600 in the Bahamas. Meanwhile, an estimated 10,000 Haitians live in the Turks and Caicos Islands, representing more than one quarter of the archipelago's total population (Lacarte et al. 2023).

[30] In 2016, Chile was an attractive destination for Haitian emigrants due to its relative political and economic stability, and the ability for Haitians to enter without a visa. Between 2015 and 2017, the number of Haitians arriving in Chile each year jumped from 12,000 to 103,000. By mid-2020, more than 230,000 Haitians were estimated to be living in Chile (Lutz and Yayboke 2021).

[31] The importance of remittances to the Haitian economy increased after the 2010 earthquake, when the Haitian diaspora comprised Haiti's "single largest donor" to rebuilding efforts, with contributions totalling USD 2 billion per year.

[32] Crossings across the Darién Gap between Colombia and Panama spiked in 2021, reaching an all-time high of nearly 134,000. This is in contrast to around 118,000 crossings per year over the previous decade. Most crossings were made by Haitians, Cubans and children of Haitians (SNM 2022).

[33] According to Human Rights Watch, between January and November 2021, 12,000 Haitians were expelled from the United States, a dramatic increase from the 895 that were expelled in all of 2020 (Human Rights Watch 2022b).

Haitians had been forcibly repatriated, according to Human Rights Watch (Human Rights Watch 2022b). As of April 2022, the IOM reported that of all those forcibly returned, 57 per cent were adult men, 25 per cent adult women (including pregnant women) and 18 per cent were minors (9 per cent girls and 9 per cent boys) (IOM 2022b). Moreover, of those forced to return to Haiti, 20 per cent were born outside of Haiti, which means that they are being returned to a country in deep crisis that they do not know how to navigate.

Another way in which Haitians have traditionally sought better opportunities has been through internal migration, particularly from rural areas to the capital Port-au-Prince and other cities. While Haiti's rural population constituted well over 70 per cent of the total population in 1990, this proportion had decreased to an estimated 40 per cent by 2020. Today, Port-au-Prince is home to a quarter of the total Haitian population (estimated at 2.8 million people), far exceeding its capacity to provide needed housing, jobs, services and resources (Worldometers 2023). As a consequence, rural migrants moving there often settle in makeshift accommodation in hazard-prone areas, without proper solid waste management and access to basic services (e.g. sanitation and drinking water). The 2010 earthquake laid bare their terrible situation, as many were killed when the anarchic concrete buildings in which they were living collapsed on them. Since the 2010 earthquake, internal migration from the capital to rural areas has increased (Fuys et al. 2021). Seasonal migration to the Dominican Republic is common but has been declining since 2020, as the sectors where Haitians have traditionally found employment, namely tourism, construction and commerce, were badly hit by the COVID-19 pandemic (Migrant Refugees 2022).

In many cases, migration is not a choice for Haitians. Instead, Haitians are forced to escape the pervasive violence, insecurity, disasters caused by natural hazards, poverty, malnutrition and political instability that they face at home. According to data from the UNHCR, more than 28,000 refugees and 147,576 asylum-seekers of Haitian descent were residing outside of Haiti in 2022 (UNHCR 2023). Reduced rainfall and water scarcity – consequences of climate change – are causing people to leave rural areas, while disasters and rising sea levels are pushing people away from coastal areas (Fuys et al. 2021). The current security and political situations are also major drivers of displacement. Forced displacement mostly occurs internally. In 2021, there were 220,000 internally displaced persons (IDPs) caused by disasters linked to natural hazards in Haiti (International Displacement Monitoring Centre 2021). As of March 2023, gang-related violence had displaced a further 127,977 people (28,415 households) from Port-of-Prince (OHCHR 2023). More than half (62 per cent) of these IDPs lived in host communities, while the rest (38 per cent) lived in spontaneous sites often located in open spaces, temples or churches, schools, or healthcare and community centres without adequate services and at risk of additional violence (especially for women and girls) (see also chapter 2.3) (IJDH 2022; OCHA 2023b).

A life on the margins

Seven years after Hurricane Matthew made landfall, "many people have still not recovered and remain in shelters made of tarp and small pieces of wood." – agronomist in Abricots, interviewed for this study.

Over the last several decades, Haiti has experienced rapid population growth, with the population increasing from 3.9 million people in 1960 to 11.7 million in 2022. The country has the youngest age structure in the Caribbean, with more than half of Haitians under 24 years old (UNFPA 2022b). A consistently high fertility rate (2.46 in 2022) suggests that the country will maintain a very young age structure for decades to come (UNFPA 2022b). This should be very positive news for Haiti. Normally, the combination of a young population and lower dependency ratios represents a demographic

window of opportunity for economic growth.[34] However, today's young Haitians have grown up almost entirely amidst political instability, economic and health crises, disasters caused by natural hazards, high rates of gang-related crime and violence, and a lack of educational and job opportunities. Increasingly difficult conditions in rural areas have forced many young people to abandon agriculture and move into the slums of Port-au-Prince where one of their few options to make a living is recruitment into armed gangs. In general, those wanting to escape a life of violence (and possible early death) leave the country (ICG 2023; ICG 2022; Ferenz 2022).

Patterns of exclusion and discrimination also exist in Haitian society, with specific individuals and groups at higher risk (and restricted access to resources and services, including aid) when shocks and crises hit. For example, Haiti has very high gender inequality. In 2021, Haiti scored 0.635 on the Gender Inequality Index, one of the 20 highest inequality scores in the world (UNDP 2022). In rural areas, female-headed households (of which 62 per cent are poor) are much more likely to fall below the poverty line than male-headed households (54 per cent of which are poor). Limited access to reproductive healthcare services remains a concern for Haitian women, and has been made worse by escalating gang violence and fuel shortages, which have severely affected the country's healthcare system (World Bank 2023d; Taylor 2022). Women are not integrated into most of the country's social and political structures. In 2019, only three out of 149 representatives in the parliament were women, one of the lowest shares in the world (UNDP 2022). Very few women hold high executive positions, both in public administration and in the private sector (Bertelsmann Stiftung 2022). Furthermore, women are less likely than men to have an account at a financial institution (only 30 per cent of Haitian women, compared to the LAC regional average of 70.1 per cent for women). Similarly, women are less likely than men to have an account with a mobile network provider (only 35.3 per cent of Haitian women, compared to the LAC regional average of 77 per cent for women) (Sardon et al. 2023).

Haiti has high levels of GBV, which can be attributed to the country's history of slavery and colonisation, permissive attitudes at individual and community levels, and weak prevention and response mechanisms. There is direct evidence that 50–70 per cent of Haitian women and girls have experienced some form of GBV in their lifetime (BAI et al. 2021). These statistics are likely to undercount the actual rate of GBV, which is chronically unreported due to stigma and shame, fear of reprisals, lack of education about rights, and mistrust in Haiti's judicial system, which often fails survivors (BAI et al. 2021).[35] Access to prevention programmes and basic response services for survivors is extremely limited, underfunded, dependent on external sources, and affected by cultural and social norms. These services are almost exclusively linked to humanitarian programmes and hence only available in areas affected by emergencies (MacPhail et al. 2023).

LGBTQI+ individuals face widespread discrimination in Haiti (Human Rights Watch 2022c). They lack any form of political representation (IJDH 2022) and encounter unique barriers when accessing medical care, including post-rape care (BINUH 2023), as well as humanitarian aid. Consequently, LGBTQI+ individuals are in an even more vulnerable position (UN Women 2021; PNUD 2023; BINUH 2023).

Another segment of the population that experiences significant barriers to accessing basic rights are people with disabilities, who suffer from stigma, poor infrastructure and a lack of adequate support. As almost no reliable data exists on people with disabilities in Haiti (estimates range between 4.1 per cent and 15 per cent of the population), it is difficult to assess the extent to which they are excluded from services and assistance (IJDH 2022). There are reports that humanitarian responses have failed to address their needs. Following the August 2021 earthquake in Haiti, for example, accessibility standards were in many cases misinterpreted or disregarded, resulting in the reconstruction of healthcare centres and shelters without satisfactory conditions for people with reduced mobility (Hazard 2022). In the displacement camps set up after the 2021 earthquake, women and girls with

[34] The proportion of the population under the age of 15 and over the age of 65 relative to the working-age population.

[35] Investigations into and prosecutions for GBV remain exceptional, with even fewer successful convictions. According to BAI, fewer than 70 per cent of complaints in Port-au-Prince led to an arrest and 40 per cent of those arrested were set free before the completion of judicial proceedings, putting survivors at risk. These rates are likely to be even worse in rural areas (BAI et al. 2021).

disabilities were found to be disproportionately at risk of sexual and gender-based violence (SGBV) due to common beliefs within Haitian society that dehumanise them or characterise them as hypersexual (HI 2021).

Access to critical services for the most vulnerable individuals and marginalised groups, already quite precarious to start with, has been exacerbated by ongoing gang violence, roadblocks and fuel shortages. For example, an estimated 30,000 pregnant women are at risk of experiencing life-threatening – if not fatal – obstetric complications due to the difficulties in accessing healthcare in the country (BINUH 2023). Rates of SGBV have increased dramatically. Gangs have reportedly used SGBV as a weapon of war to punish communities they accuse of collaborating against them, or to assert their power and control over neighbourhoods.[36] LGBTQI+ people have disproportionately suffered from sexual violence at the hands of gangs (IJDH 2022).

Social unrest, gang violence and the resurgence of cholera are hitting children in Haiti particularly bad. Gangs target children as young as 10 years old and teenagers, especially those who are homeless and at risk, for recruitment (Ford 2022). Gangs use children and teenagers as combatants, and threaten to kill them if they do not comply or if they are accused of being informants for rival gangs. Meanwhile, children are deprived of access to essential services. UNICEF estimates that some 22,100 children under the age of five and over 28,000 new-borns in Haiti are at risk of not receiving health care. Due to widespread violence and insecurity in the streets, schools have largely stopped functioning, depriving over 2.4 million children of their right to education (UNICEF 2022).

Figure 4. Charcoal production with mangrove wood © FoProBim

[36] Between January and December 2022, SOFA documented a six-fold increase in reported cases in Port-au-Prince, with 123 cases reported just in the month of December (Kestler-D'Amours 2023). Similarly, in November 2022, MSF reported treating an average of 130 GBV victims per month, 100 of whom were rape victims. However, these numbers are likely to be much higher, as reporting is made difficult by fear of reprisals from gang members and the forced closure or inaccessibility of many reporting sites such as hospitals, women's centres and police stations (IJDH 2022).

Haiti's climate and environment

"There are often devastating floods in the neighbourhood; in the aftermath, there is never enough food, water, even space to sleep or go to the toilets, so fights break out easily." - a FGD participant from Cité Soleil, interviewed for this study.

Haiti's environment

Haiti was once known as "the Pearl of the Antilles," and renowned for its lush forests and abundance of natural resources.[37] However, over time, the island nation has become one of the most environmentally degraded countries in the Western Hemisphere, a process that started during colonial exploitation. In more recent history, Haiti's environmental crisis has been aggravated by a combination of stressors, most notably the persistence of economic overexploitation and foreign extraction, poor natural resource management, natural hazards and climate change, and the deterioration of the security situation across the country (USAID 2020b).

Box 4: Physiography and hydrography

Haiti is part of the Hispaniola Island – or *Ispayola* in Haitian Creole – located at the centre of the Grandes Antilles in the high latitude tropics. It is constituted of the main island (La Grande Terre: 27 750 km^2) and five satellite islands. The name *Ayiti*, which is derived from the language of the Tainos, the indigenous people of the insular Caribbean, means "land of high mountains" or "mountain in the sea." Indeed, Haiti's topography is characterised by steep slopes, which alternate with a few arable plains and valleys bordered by rivers. Almost 75 per cent of the Haitian landscape is comprised of steep mountain ranges – some rising to almost 2,700 metres – with 50 per cent of mountain slopes exceeding a 40 per cent gradient. Various plains occupy about a quarter of the country, the most notable ones being the Northern Plain, the Artibonite Plain, the Cul-de-Sac Plain, the Des Cayes Plain, the Léogâne and de l'Arbre Plains (UNEP 2010).

Haiti has diverse soil types as a result of the geomorphology and vast differences in the quantity of rainfall across the island. The geological substratum comprises mainly limestone, basaltic and sedimentary rocks (Hilaire 2008). Apart from its main river, the Artibonite, Haiti does not possess vast river systems. Water courses throughout the country are highly irregular and subjected to significant seasonal variations. Additionally, most riverbanks, especially in upstream portions, suffer from excessive sedimentation and severe soil degradation (UNEP 2010). Haiti's coastal areas consist of three large ecosystems: hard bedrock occupied by reefs or coral communities, sand beds of seagrass beds, and low-lying wetlands and estuarial zones. Located in tropical waters, Haiti's coast provides an ideal environment for mangrove forests (Bouchon 2000).

Environmental degradation: losses on all fronts

Haiti's natural resources have been in continuous decline throughout modern history. This process began with colonial exploitation, continued through the country's postcolonial period, and accelerated more recently due to systemic mismanagement and repeated cycles of crisis that have prevented ecosystems from recovering. Several of the most severe periods of ecological stress have followed disasters caused by natural hazards, most recently the 2010 and 2021 earthquakes, and Hurricane

[37] Haiti's denomination as "the Pearl of the Antilles" is linked to the profits made from the colonial slave economy, as Haiti was one of the wealthiest colonies of its time.

Matthew in late 2016. However, political, economic and humanitarian crises have also exacerbated environmental degradation, as people are pushed into harmful coping mechanisms (Concern Worldwide 2023). Thus, despite the country's history and natural resource potential, Haiti's ecosystems and livelihood sectors, in particular fisheries, agriculture and forestry, are under severe pressure from both anthropogenic impacts and climate change (USAID 2020c).

Coastal and marine ecosystems

Haiti's marine areas, coast and territorial waters are suffering from severe environmental degradation. Over the years, valuable coastal and marine resources have been degraded by the overexploitation of mangrove forests and fishery resources, as well as rapid and unplanned urbanization, sediment deposit and soil erosion, and solid waste pollution. This has resulted in considerable biodiversity loss and water stress. Two of the hardest hit coastal ecosystems are mangrove forests and coral reefs (Mathieu 2021). Despite efforts to protect and replant mangroves in Haiti, coverage decreased by nearly 13 km² between 1996 and 2020 (see figure 1) (Global Mangrove Watch 2023). In 2020, the area of mangrove habitat in Haiti was 154.01 km², representing a linear coverage of about 28 per cent of the 2,241.61 km of national coastline, much of it in thin, fragmented pockets. Mangrove forests play a crucial role as nursery for young fish, and in regulating the water cycle, controlling erosion, regulating floods and cleaning water, among other things (Miranda et al. 2021). Mangrove ecosystems are soft structures that provide a first line of coastal protection against natural hazards. The capability of dampening waves helps to minimise destruction from catastrophic events, including erosive wave attacks, torrential storms and tsunamis (Kamil et al. 2021).

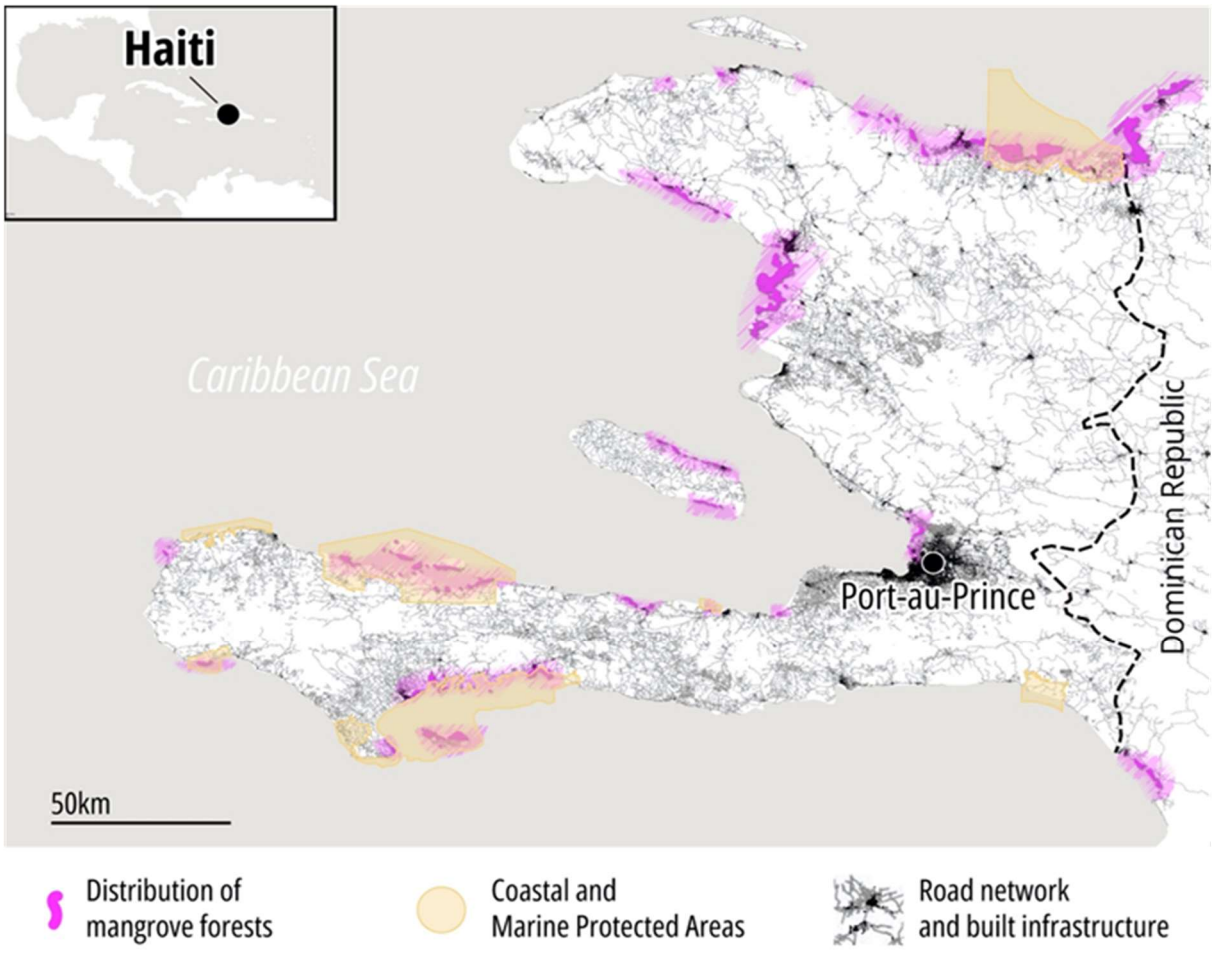

Figure 5: Distribution of mangrove forests (Mongabay, Global Mangrove Watch 2022)

Similar to mangrove forests, coral ecosystems are widely accepted as highly valuable, providing benefits such as fisheries production, shoreline stabilisation, carbon sequestration, storm protection, nutrient cycling, tourism value and medicinal products, among many other things (Wiener 2013). However, Haiti's drastic reduction of coral reefs is an important yet often ignored environmental concern. Mirroring a general trend in the Caribbean, Haitian coral reefs have suffered significant declines since the 1970s due to overfishing. Haiti's coral reefs are among the most overfished in the world – a situation compounded by other anthropogenic stresses, including major sediment and nutrient pollution due to land degradation (Hodgson 2011). This has severe socioeconomic consequences. As coral reefs disappear, reef fish populations shift towards small-bodied species or disappear entirely, affecting the fish stock on which many Haitians depend for their livelihoods (Mathieu 2021; Cox 2020).

Terrestrial ecosystems

Haiti has a long history of deforestation, which compounds other environmental problems such as soil degradation, scarcity of water resources, flooding and desertification. The loss of tree cover in Haiti dates to colonial times with the construction of plantations for coffee and sugar production. After the country's independence in 1804, clearing forests to sell precious tropical hardwood became a way for Haiti to boost its economy and pay post-independence war indemnity to the country's former colonial masters (see chapter 2.2) (Bellande 2016; Porter et al. 2022). Throughout the 19th and 20th century, timber remained an important export product, but private sawmill companies harvested the forest at an unsustainable rate. Illegal logging continued even after the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) closed all the sawmills in the mid-1980s (FAO 2002). Furthermore, extended road networks opened access to previously remote parts for agriculture. By the end of the 20th century, almost all the land area of Haiti was dedicated to agricultural production, either livestock or crops (Bellande 2015; Tarter 2015). Even protected areas have not been spared from tree cover loss. For example, in the Massif de la Hotte, only an estimated 6 per cent of the Grand Bois National Park remains covered by natural forests (USAID 2020c).

The decline in protective vegetative cover leads to a reduction in the diversity of endemic flora and fauna. Due to severe deforestation, it is likely that endemic species in Haiti have already been lost and that others are at risk of extinction (Hedges et al. 2018). Loss of tree cover also leads to increased evapotranspiration – the drying of soil through direct exposure to sun and wind – causing climatic drying. This makes soils less fertile and increases terrestrial vulnerability, worsening the effects of storms and hurricanes (Tarter et al. 2016). Without protective vegetative cover, recurring droughts followed by heavy downpours cause frequent flash floods and landslides (USAID 2020c). Extreme weather and deforestation mutually reinforce each other. Deteriorating ecosystems not only exacerbate the effects of tropical storms and hurricanes, but extreme weather contributes to that deterioration in an iterative, degenerative terrestrial cycle (Tarter et al. 2016).

Today, as a consequence of intense deforestation, among other factors, over 85 per cent of soils in Haiti are estimated to be either severely degraded or degrading rapidly, which amplifies erosion and landslides, particularly during intense rainfall (USAID 2020b). As early as the mid-20th century, UNESCO noted that degrading soil conditions were an issue of concern and the continuous decline of agricultural productivity due to soil degradation has been systematically documented since (Zuvekas 1978; Pierre-Louis 1985; Bargout and Raizada 2013). Furthermore, deforestation contributes to damaging riparian systems, and leads to the soil-silting of lakes and coral reefs. For instance, the removal of forests allows for the rapid flow of rainwater towards water courses, reducing the replenishment of ground water and aquifers – as well as reducing the purifying effects and carbon sequestering of forests (Singh and Cohen 2014). It is important to note that Haiti's rivers and streams are primarily spring-fed through a vast network of aquifers, which are recharged by rainfall capture

(Swartley and Toussaint 2006). Over the years, due to reduced rainfall capture of aquifers, many rivers that used to be permanent have become seasonal. In addition, increased soil-silting has raised water salination to levels that are harmful to water and marine ecosystems (Gibbons 2010; Hotz and Christian 2015; Tarter et al. 2016).

Existing myths around deforestation in Haiti

Deforestation in Haiti is a widely misunderstood topic, often plagued by persistent myths. Overall, there is reason for concern as natural hazards, poor agricultural practices and unsustainable wood harvesting continue to degrade forestry and land resources. Nonetheless, the condition of Haiti's forest cover may not be as dire as some analyses have portrayed (Bailis et al. 2021). An often-reoccurring number in the literature is that "only 2 per cent of Haiti is forested." However, it is now widely accepted that a much higher percentage of the territory – about one third of the country's surface – is covered by trees or forests, which includes secondary forests, woodlands, managed woodlots, tree plantations, agroforestry systems and the many trees found on farms (see figure 2) (Churches et al. 2014). Recent tree cover loss in Haiti may also be less dramatic than conventionally reported. According to Global Forest Watch, Haiti experienced a net change of -3.44 kha (-0.29 per cent) in tree cover from 2000 to 2020, suggesting that tree cover has remained relatively stable over the past two decades. The total area of primary forest in Haiti decreased by 35 per cent from 2002 to 2021, some 4.2 per cent of the total tree cover loss over the same period. The departments of South, Grand'Anse and North-East accounted for 53 per cent of all tree cover loss between 2001 and 2021, with the South Department having experienced the highest tree cover loss during that period (Global Forest Watch 2023).

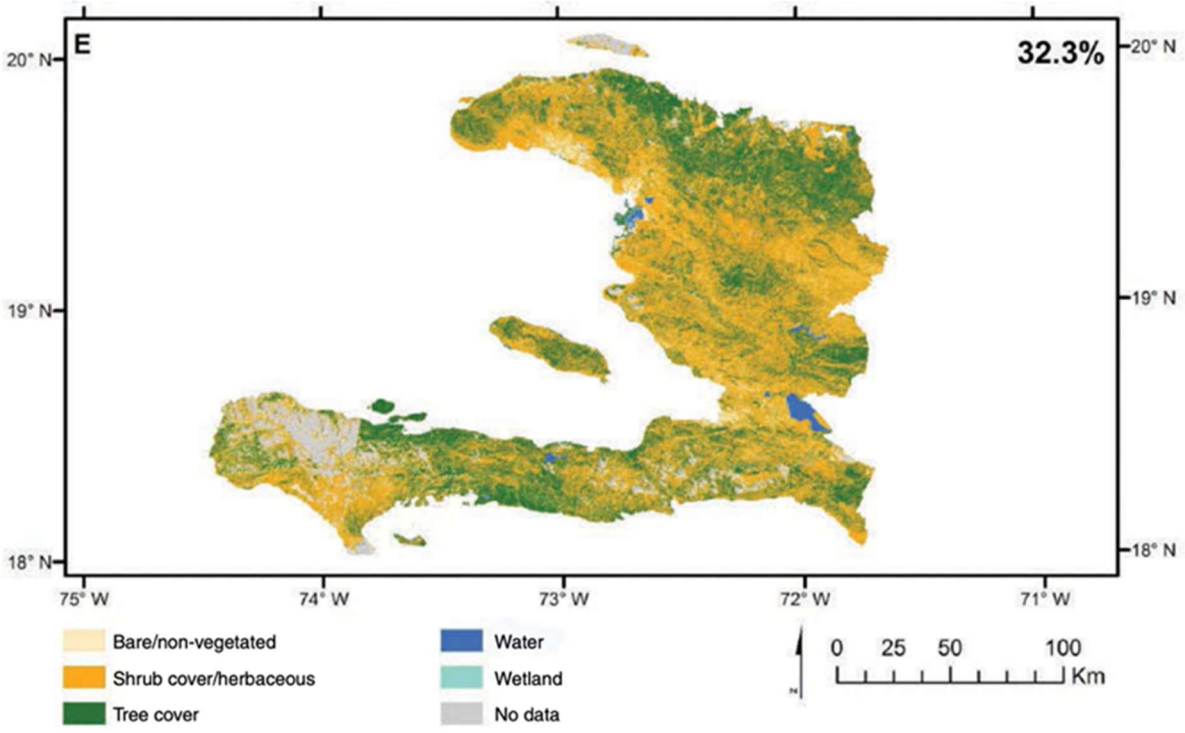

Figure 6: Tree cover map of Haiti, with estimated 32.3 per cent coverage (Churches et al. 2014)

Furthermore, it is often reported that charcoal production drives deforestation in Haiti, and that the solution to deforestation involves the promotion of alternative energies and technologies. In reality, deforestation in Haiti is a highly complex phenomenon that cannot be fully explained in a few numbers. The charcoal industry is often wrongly perceived as the main culprit, with primary forests cut for timber

and agriculture well before the rise of the charcoal industry. Today, poor agriculture practices, such as slash-and-burn farming, are by far the main drivers of deforestation (Global Forest Watch 2023; Tarter et al. 2016). Disasters caused by natural hazards are another important driver of tree cover loss, as evidenced in the spike in forest loss attributable to Hurricane Matthew in 2016 (Global Forest Watch 2023). Nevertheless, it is true that Haiti's dependency on fuelwood harvesting, which includes firewood, charcoal and *bois gras* (pieces of pine with a certain amount of pine resin to start charcoal combustion), remains a driver of deforestation, both of terrestrial as well as coastal forests.[38] However, the charcoal industry has increasingly made use of sustainable production techniques, including renewable sources of biomass (see case study in box 5).

Box 5: Case study: Charcoal industry in Haiti, the second-largest agricultural value chain

Biomass fuels derived from wood are the main energy sources in Haiti, and represent between 80 and 90 per cent of the country's primary energy supply. Wood is the primary cooking fuel in rural areas (75 per cent compared to 10 per cent in urban areas), while in urban areas some 80 per cent of households use charcoal as their primary cooking fuel (IEA 2015; USAID 2016; Freeman 2019). Charcoal is the second largest agricultural value chain in the country, behind only mangoes and significantly larger than most other commodities that comprise Haiti's rural economy. Approximately 946,500 metric tons of charcoal are consumed nationally in Haiti each year. The capital city of Port-au-Prince is by far the largest consumer of charcoal in the country, consuming an estimated 438,000 metric tons annually, close to 50 per cent of national consumption. Charcoal sales are worth an estimated USD 182 million per year for Port-au-Prince and USD 392 million per year nationally. When charcoal's estimated annual national value is compared to exports of other agricultural products (crops and livestock), charcoal is six times more valuable than all of these exports combined (Tarter et al. 2018).

Due to improvements in the road network since the late 1960s, especially the development of "feeder roads," charcoal production has become entirely decentralised throughout the country. This has relieved pressure on some traditional production areas, permitting arboreal recovery and subsequent return to charcoal production. The three top charcoal production locations together produce approximately 80 per cent of the charcoal consumed in Port-au-Prince. These include the Tiburon peninsula (41 per cent), the Central Plateau (20 per cent) and the area east of Port-au-Prince (18 per cent). Despite its poor reputation in Haiti, especially among international observers, the charcoal sector has continued to thrive due to a combination of increased geographic reach and the evolution of more sustainable production techniques, including the use of sources of renewable biomass (Tarter et al. 2018).

Climate trends and projections

Temperature

Haiti is characterised by a hot, mostly humid tropical climate. Where the mountains in the east cut off trade winds, a semiarid climate prevails (CIA 2023). Average annual temperatures range between 24°C and 27°C. Daily temperatures vary widely depending on season and altitude. During the summer months (May–October), daily temperatures typically range between 23°C and 33°C, while in winter (November–April) temperatures range between 19°C and 28°C, with significantly higher temperatures at lower altitudes. Coastal regions experience slight differences in climate due to coastal breezes

[38] FGDs in Puits Salés and Aquin, South, 30.05.2023.

(Government of Haiti 2022). Since 1960, mean temperatures have risen by around 0.5°C, with the largest increases during the warmer months (World Bank 2023e).

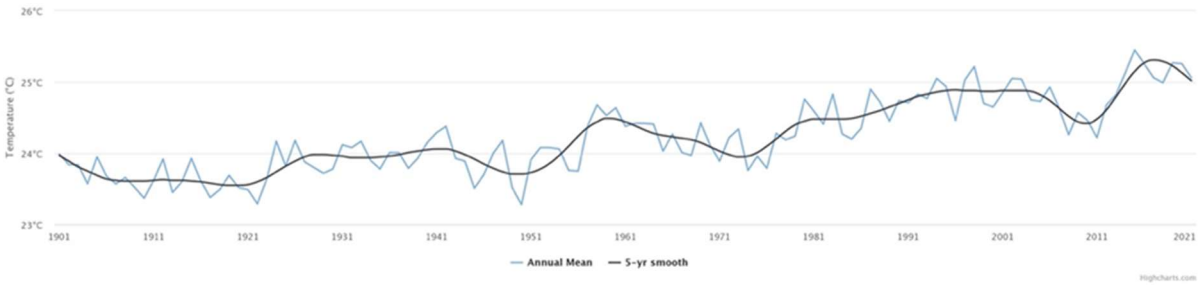

Figure 7: Observed annual mean temperature of Haiti 1901–2021 (World Bank 2023e)

Recent decades have seen a significant increase in the frequency and intensity of hot extremes during the summer season, while cold extremes have declined due to climate-related temperature changes across the Caribbean (Seneviratne et al. 2021). In Haiti, the number of hot days per year increased by 63 between 1960 and 2003 (USAID 2017). This trend is projected to continue, with temperatures continuing to rise (Seneviratne et al. 2021).

Assuming low future emissions (SSP1-2.6), mean annual temperatures are projected to rise by between around 0.9°C in the south and 1–1.09°C in the north of the island for the period 2040–2059, compared to the reference period 1995–2014. In contrast, under medium to high future emissions (SSP3-7.0), temperatures will increase by around 1.2°C in the south and 1.3–1.4°C in the north, with the largest increases in the North-Est Department (World Bank 2023e).

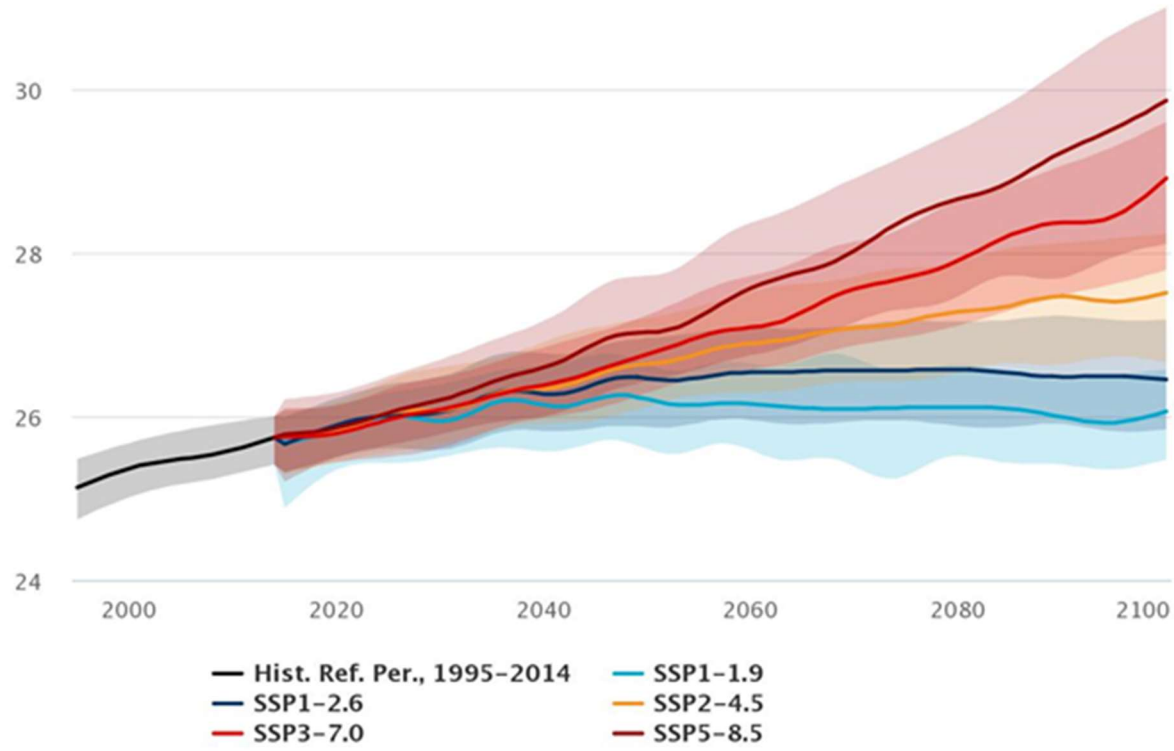

Figure 8. Projected mean temperature for Haiti. Reference period: 1995–2014, multi-model ensemble (World Bank 2023e)

Precipitation

Precipitation over Haiti is largely influenced by a dry season that normally lasts from December to April and a rainy season from May to November. However, with climate change, these seasons are shifting and have become less predictable. Average annual precipitation amounts to around 1,550 mm. Precipitation varies significantly throughout the country, with an average maximum of 2,318 mm in Vallières and an average minimum of 483 mm in the Gonaïves region. In mountainous regions, the northern and windward slopes can receive up to three times more precipitation compared to the leeward (wind-sheltered) side. In mountainous regions, the average annual precipitation is around 1,200 mm, which is up to two and a half times greater than the annual average of 500 mm that can be observed in plain areas (Government of Haiti 2022). During the rainy season, Haiti experiences frequent heavy rainfall and thunderstorms, particularly in the mountains, leading to flooding and landslides. Between 1901 and 2012, no significant long-term trends in rainfall in the Caribbean could be observed (Mycoo et al. 2022). This is in line with precipitation trends for Haiti from the World Bank from 1901 to 2020 (World Bank 2023e).

"We used to prepare the land to plant carrots in August, and the rain came in September; now August comes, we plant, but there is no rain for months" – representative of a Haitian youth association, interviewed for this study.

As for the future, assuming medium and high future emissions (2°C global warming and above) the Intergovernmental Panel on Climate Change (IPCC) projects a reduction in precipitation across the Caribbean, particularly during the summer season (June to August) by the end of the 21st century (Seneviratne et al. 2021). According to the United States Agency for International Development (USAID), average annual rainfall in Haiti is projected to decrease by 3 per cent by 2030 and 6–9 per cent by 2050, with reductions estimated to be greatest during the summer dry season (June–September). Periods of drought are also projected to intensify (USAID 2020a). Assuming low future emissions (SSP1-2.6), World Bank data for Haiti projects rainfall to decline by around 40 mm annually in the North-East Department and by 10–20 mm in the other eastern departments, while western departments could experience increases in precipitation compared to the reference period 1995–2014 (World Bank 2023e). However, since modelling hydrological characteristics in small island contexts using global simulations is subject to substantial uncertainty, these results should be interpreted as approximations (Seneviratne et al. 2021).

Just as no significant long-term trends in rainfall in the Caribbean could be observed (Mycoo et al. 2022), the absence of available data and a lack of model consensus make it difficult to identify any conclusive changes in heavy precipitation. Generally, heavy precipitation is expected to become more intense in many parts of the world due to the greater capacity of a warmer atmosphere to hold water vapour. At the same time, the number of days of heavy precipitation is expected to increase each year. However, concerning the Caribbean, there is a lack of certainty about whether heavy precipitation events will increase in the region given 1.5°C, 2°C or 4°C increases since different models project different outcomes (Seneviratne et al. 2021).

Box 6: The effects of El Niño – Southern Oscillation (ENSO) on Haiti's climate

The El Niño Southern Oscillation (ENSO) is an irregular climate phenomenon that causes fluctuations in sea surface temperatures and associated changes in atmospheric pressure in the equatorial Pacific Ocean. These changes in the water and atmosphere can affect weather patterns around the globe. ENSO consists of three phases: the neutral state, and the El Niño and La Niña events that occur at irregular intervals (approximately every two to seven years) (Bell 2014).

Across Haiti, ENSO causes large inter-annual climate variabilities. During an El Niño event, Haiti typically experiences drier and warmer weather conditions, increasing the risks of droughts and reduced agricultural production. Conversely, during a La Niña event, when sea surface temperatures in the eastern Pacific become cooler than normal, Haiti experiences wetter conditions than usual, increasing the risk of flooding and landslides. The ENSO also affects hurricane activities. La Niña favours stronger hurricane activity in the central and eastern Pacific basins due to weaker vertical wind shear and trade winds, while El Niño has the opposite effect, suppressing hurricane activity in the basins (Bell 2014). Between 2020 and 2023, the world experienced a rare three-year, triple-dip La Niña event. The last major El Niño event occurred in 2016 – the joint hottest 12 months on record, along with 2020. In mid-2023, the World Meteorological Organisation (WMO) declared, for the first time in seven years, the onset of El Niño conditions in the tropical Pacific. WMO forecasts with a 90 per cent probability that the El Niño event will continue during the second half of 2023. It is expected to be of at least moderate strength (WMO 2023).

Many parts of the world, including the Caribbean, are facing recurring droughts, which pose a significant challenge for agricultural production – an important component of the region's economy. Haiti is particularly at risk of droughts during El Niño phases. Between 1992 and 2016, Haiti experienced nine drought episodes, with one in 2016 affecting over 3.6 million people. These recurring drought events have severely impacted crop and livestock production. According to the IPCC, there is some evidence that over the last few decades droughts have increased in duration across the Caribbean, although confidence over these changes is low (Seneviratne et al. 2021). Other research has found that over half of the land area in Haiti is exposed to agricultural drought risks. Cropland resources located at high elevations or on slopes are at greater risk of drought because of their limited capacity to retain water (Elusma et al. 2022).

Climate change is expected to exacerbate aridity and drought risks across the Caribbean, as temperatures continue to rise and precipitation could decline (Ranasinghe et al. 2021). Although future increases in these risks are uncertain, small islands in the Caribbean such as Haiti will likely experience an increase in the frequency, duration, magnitude and extent of agricultural and ecological droughts (Seneviratne et al. 2021). However, an accurate representation of drought characteristics in small island contexts using global simulations poses significant challenges, which means that caution is needed when interpreting related projections (Seneviratne et al. 2021).

Sea level rise

Sea level rise is not uniform across the globe but subject to regional differences due to thermal expansion of water and ocean currents, among other factors. As a coastal country, Haiti is at a high risk of sea level rise caused by global warming. Between 1993 and 2014, sea levels rose by 2.5–3 mm annually across the West Caribbean (Mycoo et al. 2022). Climate change will continue this trend. Assuming a low emissions scenario (RCP2.6), sea levels around Haiti are projected to rise by around 14 mm by 2030, 25 mm by 2050 and 39 mm by 2080 compared to the period 1986–2005. In contrast, assuming high future emissions (RCP8.5), sea levels around Haiti are projected to increase to around

15 mm by 2030, 28 mm by 2050 and 53 mm by 2080, compared to the same baseline period (median projections). These rises in sea levels will have significant impacts on Haiti, including increased coastal erosion and coastal flooding, as well as damage to infrastructure and property (World Bank 2023e). These consequences will be significant given that the great majority of Haitians live very close to the coast (CIA 2023).

Furthermore, climate change-induced sea level rise in combination with storm surges, waves and human interventions will change the shorelines of Haiti. Sandy shorelines in Caribbean islands are projected to retreat by around 80 m (median value) by the mid-century, retreating by up to 200 m by 2100 relative to the year 2010, under both medium and high emissions scenarios (RCP4.5 and RCP8.5) (Vousdoukas et al. 2020). Marine heatwaves and ocean acidity are also projected to increase in the Caribbean Sea (Ranasinghe et al. 2021).

Natural hazards and extreme weather events

Haiti is highly vulnerable to a range of natural hazards and extreme weather events, all of which can cause significant damage to infrastructure, agriculture and human settlements, as well as loss of life. According to the World Bank, more than 96 per cent of the country's population are exposed to these types of shocks (World Bank 2023e). For the period 2000–2019, Haiti ranked third after Puerto Rico and Myanmar in the Global Climate Risk Index, which assesses the extent to which countries are affected by the impacts of climate-related extreme weather events (e.g. storms, floods and heat waves). Germanwatch puts the number of weather-related deaths within this 20-year period at 27,405, attributing these fatalities to the aftermath of exceptionally devastating extreme events, such as Hurricanes Jeanne in 2004, Hurricane Sandy in 2012 and Hurricane Matthew in 2016 (Eckstein et al. 2021).

Seismic events

Haiti's earthquake hazard level is classified as medium, meaning that there is a 10 per cent chance of a potentially damaging earthquake hitting the country every 50 years (GFDRR 2018). On 12 January 2010, Haiti was rocked by a 7.0-magnitude earthquake that caused unprecedented human, social, economic and environmental destruction. The earthquake ranked among the deadliest and most devastating in recent global history, claiming approximately 230,000 lives and injuring 100,000 people. Almost 1.5 million people were made homeless overnight, nearly 300,000 were displaced and the capital Port-au-Prince was left in ruins (MULTI-MENACE-HA 2010; UN News 2022a). Barely a decade later, in mid-2021, Haiti's southern departments were struck by another 7.2-magnitude earthquake, which resulted in 2,246 deaths, destroyed 54,000 houses and damaged 83,770 other buildings, including schools and healthcare facilities (World Bank 2023c).

Landslides

Haiti's rugged topography (63 per cent of Haiti's land has a slope of 20 per cent or more) and frequent heavy rainfall, combined with the impacts of deforestation, make the country highly susceptible to landslides (Glas et al. 2020). The reduction in tree cover has also led to decreased soil stability and more erosion, which increases the risk of flash floods due to the reduced capacity of watersheds to retain water (CIA 2023).

Flooding

Heavy precipitation events, mostly in the context of storms and hurricanes, can cause disastrous and deadly flooding, especially in regions with steep terrain. Flooding is further aggravated by deforestation, as well as by soil erosion and sediment transportation, which lead to an expansion of flood prone areas (Mora 2010). Between 2000 and 2018, flooding was the most frequent natural hazard in Haiti, constituting 53 per cent of all recorded events during that period, according to the CRED Emergency Events Database (CRED 2023).

The World Bank categorises the risk of both urban and river flooding as high across almost the entire country (ThinkHazard! 2023). In mid-2023, precipitation associated with a low-pressure system at the start of the hurricane season caused numerous rivers to overflow, resulting in flash floods, flooding, rockslides and landslides in most of Haiti's departments, affecting tens of thousands of people and killing dozens. These phenomena were especially destructive considering that some localities, such as Port-de-Paix (North-West Department), had already experienced episodes of heavy rainfall followed by severe flooding the previous week (OCHA 2023c).

In terms of urban flooding, Port-au-Prince and other urban centres are highly vulnerable as a substantial portion of residents live in poor housing on flood plains. Inadequate waste management exacerbates the risk of water-borne diseases after flooding events (World Bank 2023c). Slum areas such as Cité Soleil, where tons of waste accumulate in open canals that run through the commune, are especially vulnerable to flooding events, and related health and other risks (OHCHR 2022b). Projections on floods in Haiti are inconsistent, as trends in future rainfall and heavy precipitation are uncertain. However, despite a general reduction in rainfall, the risk of floods will continue to be high (GFDRR 2018).

Hurricanes and tropical storms

Haiti is highly susceptible to hurricanes and tropical storms due to its location at the heart of the hurricane belt, a region in the Atlantic Ocean and the Caribbean Sea where these extreme events are most likely to form. The hurricane season typically occurs between June and late November. The impacts of hurricanes on Haiti are exacerbated by human activities, including widespread deforestation, unmaintained drainage infrastructure and the loss of natural barriers in coastal areas (USAID 2017).

In recent years, Haiti has experienced several devastating hurricanes that have caused significant damage to infrastructure, homes and agriculture, as well as loss of life. In October 2016, Hurricane Matthew, a Category 4 storm, made landfall in Haiti, affecting around 20 per cent of Haiti's population (World Bank 2017). The storm's strong winds and heavy rainfall caused heavy flooding and landslides, and severely damaged the country's infrastructure, agricultural crop yields and natural ecosystems. The aftermath was catastrophic, with approximately 1.4 million people requiring immediate humanitarian assistance and around 550 deaths (World Bank 2017). Other recent hurricanes causing widespread destruction and many fatalities include Hurricane Irma in 2017 and Hurricane Dorian in 2019 (ReliefWeb 2019). Some evidence suggests that the intensity of hurricanes over Haiti has increased since the 1980s (USAID 2016), but insufficient observational data makes it difficult to determine long-term trends in wind patterns across the Caribbean's small islands (Ranasinghe et al. 2021).

The lack of data also makes it difficult to project future hurricane occurrences and intensities. Nevertheless, assuming a high emissions scenario (RCP8.5), climate projections indicate that average annual wind speeds may increase by up to 8 per cent by the end of the century (Costaya et al. 2019). The occurrence of hurricanes within the Caribbean basin is expected to become less frequent, but their intensity is projected to increase, largely due to the rise in sea surface temperatures under the high

emissions scenario (RCP8.5) (Ranasinghe et al. 2021). This trend is in line with future global changes in tropical cyclone occurrences, according to which the frequency of tropical cyclones is likely to either decrease or remain unchanged, while the intensity of future tropical cyclones is very likely to increase as a consequence of climate change (IPCC 2021).

"What do you do if you prepare the land, have everything lined up to start the planting season, but the soil is so dry that you no longer know what or when to plant? You resort to a more stable and manageable source of income, and that is charcoal." - an agronomist in the Nippes Department, interviewed for this study.

"Trees are our alternatives when we have no money to make ends meet. Many of us know how important they are for our environment. We know that the tree gives life, food, shade and protects the soil, but if the climate abandons us, what choice do we have?" - farmers in the Nippes Department, interviewed for this study.

Figure 9. Coastal salt pans in Haiti © FoProBim

Pathways of climate and insecurity in Haiti

Across Haiti, climate change and environmental pressures have contributed to violence and insecurity in multiple ways, and this is expected to continue or further increase as the impacts of climate change worsen. This chapter outlines five interrelated climate security pathways that affect food systems, livelihoods, and community relations and social cohesion in Haiti, compounding insecurity and violence:[39]

1. Climate-induced natural hazards cause disasters that not only directly threaten Haitians' survival, but also exacerbate pre-existing governance challenges, hindering response and prevention efforts in the immediate and long term.

2. Climate change impacts and environmental degradation push people into harmful adaptation practices, such as environmental crimes and exacerbate competition over natural resources.

3. Climate change and environmental degradation are drivers of internal and external migration; as an increasing number of people leave their communities and families, coping mechanisms built on social cohesion and mutual aid are being eroded.

4. Climate and environmental pressures put livelihoods and protection systems at risk, especially for young people and children, exposing them to violence, exploitation and abuse.

5. In turn, institutional fragility and widespread violence in Haiti further intensify the climate change crisis, hampering the implementation of effective climate change and peacebuilding initiatives, and jeopardising the country's access to crucial climate finance opportunities.

Disasters caused by natural hazards worsen government shortfalls, hindering response and prevention efforts

Climate-induced natural hazards cause disasters that not only directly threaten Haitians' survival, but also exacerbate pre-existing government challenges that hinder response and prevention efforts in the immediate and long term.

While the government bears responsibility for reducing exposure to natural hazards, it has historically struggled to manage and mitigate risk exposure, and – in some cases – has even amplified it. Haiti's tumultuous history – marked by colonial legacies, foreign interventions and extractive state structures – has cemented a system of power and privilege that is centred on the few at the expense of many (Hsu and Schuller 2019). As a result, health, wealth, stability, security and development in Haiti are not evenly distributed across society or geography. An important consequence of these dynamics has been the underinvestment in public institutions and their capacities, which has undermined the provision of public services (e.g. healthcare, sanitation, waste management and education). Ultimately, when a disaster caused by natural hazards strikes, adequate safety nets and response mechanisms may be lacking, increasing the vulnerability of Haitians, especially the poorest and most marginalised people within society (Dubois 2012; DoS 2022; Hsu and Schuller 2019).

[39] In no particular order.

Limited state capacity and resources inhibit disaster risk management (DRM) to the detriment of Haitians. The challenges affecting state institutions are far reaching and affect DRM. Historically, DRM has not been adequately addressed in Haiti, which has had significant implications for the health and wellbeing of Haitians, as the 2010 earthquake demonstrated (see box 7). Since the 2010 earthquake, improvements have been made to the system, but significant challenges remain from a prevention and response perspective. Of particular importance are the limited resources and capacities of local authorities and agencies responsible for DRM, especially in rural zones. Furthermore, the enforcement of relevant laws and regulations, including building codes, is constrained, with many buildings failing to meet the appropriate standards and not subject to regular oversight (IFRC 2020). A striking example of this issue are informal and illegal dwellings in mangrove and coastal zones, many of which are supposed to be protected. Due to a lack of access to land, people have started to clear mangrove forests and illegally build their houses in these areas, in some cases with the knowledge or even complicity of local authorities. However, as mangrove forests are vulnerable to coastal flooding and extreme weather events, this puts the physical security of people at risk.[40] Furthermore, although more early warning systems (EWS) have been established recently, they are not yet fully functional (see chapter 5.3).

Box 7: Disaster Risk Management in Haiti

After the 2010 earthquake, it was clear that the DRM system in Haiti faced significant challenges across several domains, including poor early warning and risk mapping capacities, a lack of coordination, few legal requirements on areas critical for disaster prevention and response, weak enforcement capabilities, and the lax application of rules vital to the safety of thousands of Haitians (e.g. on building codes) (IFRC 2020).

This realisation led the government, with the support of international partners, to make notable improvements to DRM, including legal reforms (a new disaster response strategy has been developed),[41] building capacity, improving equipment, strengthening coordination on response and recovery between and within ministries and other actors, and greater focus on prevention, education, awareness raising and training (The New Humanitarian 2022). The General Directorate of Civil Protection (DGPC), which has the institutional mandate to coordinate the DRM system, is relatively trusted especially after its successful coordination of the emergency response following the 2021 earthquake (GFDRR 2022).

Financial mismanagement further hinders DRM in Haiti. In some instances, financial mismanagement and/or the misuse of funds allocated to DRM have impeded the implementation of effective response and recovery activities (CSIS 2020). For example, there have been instances where materials or public works intended to assist disaster recovery were not completed as intended, and others where access to materials and goods allegedly required a bribe or close relations to those tasked with distribution (BTI 2023; Melis and Jean 2021). These dynamics were evident in the response to Hurricane Matthew, with many observers noting that some relief aid was appropriated by those in charge of distribution and failed to reach hard-hit communities (Melis and Jean 2021; Hsu and Schuller 2019). The lack of adequate aid in the aftermath of disasters can spur further competition within and between communities. For example, a FGD participant from Cité Soleil said, "*There are often devastating floods in the neighbourhood; in the aftermath, there is never enough food, water, even space to sleep or go to the toilets, so fights break out easily*."[42]

[40] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

[41] The National Risk and Disaster Management Plan 2019–2030 was approved by the government of Haiti in 2020. The plan was developed through an inclusive, multisectoral and participatory process; technically supported by the UNDP, UN Women and UNDRR; and financially supported by the United States Agency for International Development/Office of Foreign Disaster Assistance (USAID/OFDA) and the World Bank.

[42] FGDs in Cité Soleil, Port-au-Prince, 29–30.06.2023.

Disaster response may itself incentivise financial mismanagement by some actors. This is a typical trend observed in countries where institutions needed for oversight and management struggle to deliver. This is also the case in Haiti, where the judiciary faces significant institutional challenges, which make addressing instances of financial mismanagement difficult (see chapter 2.2; BTI 2023). At the same time, the amount of funds associated with disaster response is so large that it cannot be ignored. In response to the 2010 earthquake, for example, a total of USD 13 billion in official development assistance (ODA) was funnelled into Haiti. Considerable amounts of ODA were reportedly siphoned off and kickbacks were given to implement (or not) projects (CSIS 2020).[43] Several examples involving the co-option of relief aid have been recorded. During the response to Hurricane Matthew, there were reports of relief aid being taken by individuals in some of the affected departments to buy influence and increase their wealth (Hsu and Schuller 2019). Even today, armed gangs allegedly take aid deliveries in hard-to-reach areas, which increases their recruitment capacities and resources, only to prolong the insecurity experienced across the country (Hsu and Schuller 2019).

Feelings of distrust between rural peasants and the ruling elite are further amplified when instances of malpractice in disaster response come to light. Distrust between the state and rural peasants (*peyizan* in Kreyol) in Haiti has a long history, with roots in sentiments that the government does not work for the common people nor has their best interests at heart. A common opinion held in southern Haitian communities following Hurricane Matthew is illuminating in this regard, "*Leta pran li pa bay*" (The state takes [from you] but does not give [to you]) (Melis and Jean 2021). In the past, there have been instances in which officials or *notabs* have taken advantage of the chaos following a disaster event to confiscate land from rural people (Marcelin et al. 2016). To many, this has solidified the view that the state is a hostile entity that exploits peasants.[44] "*To us, local authorities only exist in name, as part of the country's administrative structure; they do not take any concrete action in the commune, the majority of the population is not informed of what they do, of whether the commune receives aid, and if so of where it goes*."[45] In turn, popular unease with the actions of elected officials bears its own consequences, inhibiting the adoption of or adherence to policies and practices that may be useful and beneficial to Haitians, not least in disaster prevention. In one telling example, the division and mistrust between Haitian society and the state meant that people were less receptive to messages and warnings about Hurricane Matthew's impending arrival, which resulted in fewer people adequately preparing themselves (Melis and Jean 2021). A representative of an international NGO (INGO) working on DRM in Haiti said, "*The issue is that people do not trust weather alerts due to widespread fake news. And even if they would trust them, they stay in their houses because they fear that, if they leave, their properties will get stolen.*"[46]

International donors and implementing organisations have been key in providing disaster relief and response to Haiti, but their involvement has presented challenges that have reinforced mistrust among some segments of the Haitian population. International donors and implementing organisations (e.g. UN agencies, and regional and international NGOs) have traditionally provided important support to the government and civil society actors in Haiti on disaster prevention, response and recovery. Their contributions in this space are well noted and impactful, ranging from addressing the immediate survival needs of the population to the delivery of essential services (e.g. drinking water, healthcare and sanitation) and support to policy development on DRM. With that said, the role of international actors has also been problematic at times and, in some cases, even contributed to

[43] For example, "Multiple infrastructure (notably roads, bridges and even sports facilities) and public building reconstruction contracts were issued to Dominican and other non-Haitian businesses that often appeared to have links to individuals within the Haitian public sector bureaucracy and political community with payouts often exceeding project deliverables." See: CSIS (2020).

[44] This is rooted in the historical relationship between Haiti's peasants and the state, a history that has been studied extensively. See, for example: Dupuy (1989).

[45] FGDs in Terrier-Rouge, Nord-Est, 12.07.2023.

[46] Key expert interview with INGO, 1.03.2023.

reinforcing harmful dynamics. For example, accountability mechanisms linked to some international projects have not always been easily available or accessible, or have even existed (IJDH 2022). Some international organisations have been accused of replicating the perceived extractive relations that are present between Haitian political and economic elites, and the peasantry, for example, by failing to engage community-based organisations (CBOs) as equal partners or by-passing relevant Haitian actors entirely, an issue which undermines the long-term sustainability of interventions (Frontier 2021; Melis and Jean 2021). In some cases, these dynamics have compounded sentiments of mistrust towards international actors among some groups in Haiti, which, if not addressed, can undermine the impact of their often-critical work in the country.

Dissatisfaction with disaster responses can spur violence. Groups known as "vigilance brigades," which have existed in Haiti for decades, are reportedly becoming more active during periods of political instability or after natural disasters in response to the perceived inability of state security forces to protect civilians (Edourard and Dandoy 2017; Da Rin 2023). Between 2012 and 2015, in the aftermath of Hurricane Sandy and with a cholera outbreak in full swing, the United Nations documented 500 cases of lynching. This phenomenon has seen a recent resurgence especially in Port-au-Prince's most vulnerable neighbourhoods in response to the spike in gang-related violence (OHCHR 2017). In April 2023 alone, the OHCHR reported 164 cases of mob killings and lynchings of alleged gang members perpetrated by self-defence groups (known as *Bwa Kale*, or "peeled wood," in Haitian Creole), which are largely comprised of young volunteers (OHCHR 2023; Da Rin 2023). Some of these self-defence groups collaborate informally with state security forces to fight gangs and even with armed groups to protect themselves from attacks by rival bands (Da Rin 2023). Far from helping curb gang-related violence, the rise of the *Bwa Kale* movement is fuelling even more violence in the capital and further undermining the rule of law in Haiti. Ultimately, the impact of disasters and the inability of state institutions to manage disasters will lead to continued dissatisfaction among the population likely fuelling more instability and violence.

DRM challenges affect all Haitians, but not equally. The abovementioned issues with DRM in Haiti have especially negative impacts on some segments of the Haitian population. Women, young people and people with disabilities are more likely to be affected by disasters, since they are more likely to be dependent on others to meet their needs, are disproportionately poorer and have limited influence on decisions relating to the allocation of resources (UN Women 2021; Hunt et al. 2015; World Bank 2020). Their marginalisation also means that they are less able to access services following disasters. For example, 54 per cent of women compared to 46 per cent of men experience difficulties accessing post-disaster healthcare services (when these remain operational). Moreover, people with disabilities are less likely to be admitted to shelters, receive essential services or be included in the registries of those affected by a disaster (UN Women 2021; Hunt et al. 2015). Poor households live in environmentally insecure zones, such as ravines or coasts in rural areas, or hillside *bidonvilles* in cities,[47] often accommodated in shelters made from dangerous materials, such as "*poorly attached tin roofs which can kill people when they fly away*."[48] They are typically engaged in small-scale informal business activities and, in rural areas, live off of subsistence agriculture, which stunts their ability to rebuild and recover. The high cost of paying for damages following natural hazards often leaves people with no option but to sell what assets remain, including land, leaving these households stuck in a cycle of poverty and vulnerability.[49] Seven years after Hurricane Matthew made landfall, for example, "*many people have still not recovered and remain in shelters made of tarp and small pieces of wood*."[50]

[47] *Bidonville* are equivalent to "slums" or "favelas."

[48] Key expert interview with worker at Wynne Farm Ecological Reserve, 22.03.2023.

[49] Though historically selling livestock or land was a last resort, this is reportedly becoming the new normal given today's environment of climate change and insecurity.

[50] Key expert interview with agronomist in Abricots, 24.03.2023.

Ultimately, climate-induced natural hazards threaten to cement and reinforce DRM challenges. The high costs of disasters mean that financial and human resources – both those coming from the Haitian government and from international donors – often get funnelled towards response and recovery rather than long-term and sustainable development objectives. This dynamic is already visible in Haiti, where recurrent climate-induced natural hazards have de facto trapped the country and its people in a state of survival, preventing people from making much progress beyond response or recovery. Their projected increase in frequency and intensity will only make things worse, subtracting resources from other key sectors, such as education and healthcare. Especially in areas where these investments would be most needed, this can perpetuate underdevelopment, poverty and vulnerability.

Climate change pushes people into harmful adaptation practices and exacerbates competition over natural resources

Climate change impacts and environmental degradation push people into harmful adaptation practices, including environmental crimes, and exacerbate competition over natural resources – these dynamics vary significantly across rural and urban areas, shaping internal migration patterns.

Haiti has long suffered from a profound rural-urban divide, with urban areas, in particular the capital Port-au-Prince, performing much better on a range of development indicators compared to rural areas or the *andéyo* – meaning the "outside." An important driver of this divide has been chronic underinvestment in rural areas and agricultural infrastructure (Ferenz 2022). Haiti is often considered among the most socioeconomically unequal countries in the LAC region, with an especially stark gap between cities and the countryside (World Bank 2014).

The marginalisation of rural areas primarily stems from a weak social contract between political elites in the capital and so-called peasants in the provinces (Ferenz 2022). Interviewees described Haiti's social system as one based on exclusion and inequality – the "haves" and "have nots" – which has resulted in numerous internal conflicts and cases of political violence throughout Haiti's history (Hauge et al. 2015; Zanotti 2010). As one Haitian security expert interviewed for this study observed, "*When I moved back here in 2011, I said that eventually there will be a civil war. The country is too divided, and the disparity between rich and poor is too great.*"[51] Nonetheless, the opposing realities of rural and urban Haiti form the backbone of the island nation's society (Ferenz 2022). They are highly interdependent, shaping the dynamics around climate resilience and vulnerability. Moreover, both rural and urban Haitians are heavily affected by the effects of climate change and environmental degradation, but in quite different ways.

Most rural households rely on rain-fed agriculture as their primary livelihood strategy, which means that climate and environmental stress can quickly push them into extreme poverty and food insecurity.[52] Slow-onset shocks, such as rainfall variability, increasing temperatures and soil degradation, affect agricultural productivity as well as the fishery sector, with negative repercussions on rural household income. On top of that, natural hazards cause damages from which rural households typically need years to recover (Singh and Barton-Dock 2015). The south of Haiti is particularly affected by drought. One farmer from Grand'Anse explained that she and her husband could not start the planting season because of unusually dry conditions. With the planting season for corn, beans, taro, sweet potato and yam delayed, the household lost a critical portion of their yield.

[51] Key expert interview with security expert in Port-au-Prince, 21.03.2023.

[52] Only half of the potential for irrigation in Haiti is effectively exploited (about 80,000 hectares), while most of the 250 irrigation systems present in Haiti are poorly maintained, are clogged with silt or provide irregular supplies (MARNDR 2015; Jean et al. 2022).

Traditional coping mechanisms, such as agroforestry, have been undermined by the impacts of climate change and environmental degradation. "*Agroforestry used to be a good backup for us, but since Hurricane Matthew hit the region in 2016 most of the trees were either severally damaged or have fallen. Those that managed to recover still struggle to bear fruit because of the lack of rain. Mangos are not growing and when they fall down from the trees they are inedible*."[53] Similar to agroforestry, livestock rearing in Haiti serves as an alternative livelihood source, a type of savings that allows rural households to sell or consume the animals in times of increased hardship (Tarter et al. 2016). However, for many families, this coping strategy is no longer viable as many animals have been killed by natural hazards, with herds unable to recover due to poor environmental and weather conditions.[54] Hurricane Matthew, for example, is estimated to have resulted in thousands of cattle deaths, including up to 90 per cent of livestock lost in some areas (USAID 2020c).

Coping mechanisms are further hampered by the lack of knowledge of and access to sustainable and climate-resilient agroecological practices and technologies. Irrigation and extension services, as well as the provision of essential infrastructure and agro-services more generally, are extremely limited in Haiti (Ferenz 2022). Both the lack of knowledge and access to services are remnants of Haiti's history of slavery, rural marginalisation and overexploitation.[55] The situation for rural people has become worse over the last decade due to the impacts of successive, multifaceted crises. "*Local production has been really affected by this mix of drought, soil erosion and landslides, not to mention the political and economic situation; more and more products are imported and rural areas risk losing their purposes*," an INGO staffer working on food security in Haiti confirmed.[56] Large areas of rural regions are especially vulnerable to water stress. As one social worker explained, "*Some areas have water because of their proximity to rivers, but many have dried out. In other cases, there is no infrastructure to transport water, so it just funnels out into the ocean*."[57]

Lacking other options, many farmers have resorted to shifting agricultural practices, often in a short-term, unsustainable manner that damages the natural environment.[58] This includes an increase in slash-and-burn farming, and the clearing of uphill forest areas for farming and grazing, which further drives deforestation, soil degradation and biodiversity loss (Bellande 2015). Lack of access to suitable land for exploitation is one of the key issues, as the few fertile stretches of land are generally owned by so-called *grandons*, wealthy landowners that often cultivate monocrops for export. This pushes smallholder farmers to mountainside plots.[59] Another coping mechanism that can – if not done sustainably – drive deforestation is charcoal production, arguably one of the most accessible and stable sources of income in rural Haiti today. Farmers often do not have another choice than to cut down valuable forests.[60] "*What do you do if you prepare the land, have everything lined up to start the planting season, but the soil is so dry that you no longer know what or when to plant?*" said an agronomist interviewed for this study. "*You resort to a more stable and manageable source of income, and that is charcoal*."[61] Farmers in the Nippes Department explained their relationship with forestry as follows, "*Trees are our alternatives when we have no money to make ends meet. Many of us know how important they are for our environment. We know that the tree gives life, food, shade and protects the soil, but if the climate abandons us, what choice do we have?*"[62]

[53] Key expert interview businesswoman in Abricots, 12.04.2023.

[54] FGDs in Puits Salés and Aquin, South, 30.05.2023.

[55] Key expert interview with independent consultant / cultural anthropologist, 7.02.2023.

[56] Key expert interview with INGO, 23.02.2023.

[57] Key expert interview with Haitian youth association, virtual, 20.03.2023.

[58] FGDs in Baleine and Fonds des Blancs, South, 26.05.2023.

[59] Key expert interview with independent consultant / cultural anthropologist, 7.02.2023.

[60] FGDs in Puits Salés and Aquin, South, 30.05.2023.

[61] Key expert interview with Haitian academic specialised in agronomy, 1.04.2023.

[62] FGDs in Petit Trout de Nippes, Nippes, 04.06.2023.

Box 8: The story of an agronomy student and farmer from Cap Rouge

Jacques (not his real name) is a 30-year-old agronomy student based in Jacmel, but he is originally from the mountains known as Cap Rouge, where he continues to farm. Jacques has a strong commitment to the rural life and a deep love for things that grow. However, for him and his fellow farmers in the region, planting has become extremely difficult due to the effects of climate change: there is a lack of rain, long periods of drought and the seasons have become extremely unpredictable. There are very few water sources and farmers often need to walk several kilometres to find one. Jacques remembers many wells that have completely dried up and no longer exist. Whether they will one day come back or not, he does not know.

The area where he lives and farms is small, with just a few families left, because for many years now people have been leaving. Many have left for Jacmel and Port-au-Prince, but also internationally towards the United States, Chile, the Dominican Republic and Brazil. People desperately want to leave the area to find work, to find alternatives. Despite some local efforts to promote an agroecological approach to farming, many people have lost hope. But not Jacques. He talks passionately about an innovative agroecological technique called *sistem paya,* where leaves fallen from plants and trees are gathered and spread across the soil to prevent moisture and water escaping. The leaves decompose and naturally fertilise the soil. Jacques' plan is to learn as much as he can, return to Cap Rouge and work with farmers in applying new sustainable methods. He is convinced this will change the lives of rural people in the area for the better.

Migration towards urban centres has been another coping strategy, but over time this has placed immense demographic pressure on Haitian cities. For a long time, migration towards urban centres has been an adaptation strategy for rural Haitians who could no longer cope with degrading livelihood conditions. This so-called rural exodus, often referred to as *cheche lavi* ("searching for livelihoods"), has, in the absence of any urban planning, resulted in the proliferation of slums – so-called *bidonvilles* – in cities and especially in Port-au-Prince (Fanfan 2020). An NGO staffer interviewed for this study explained that "*As climate change makes it more and more difficult to live off agriculture, people have no choice but to move away from rural areas where there is nothing left for them: no work, no food, no services. Some places, for example in the Southern Department, have been really emptied out*."[63] The rural exodus is both a driver and a result of climate and environmental insecurity, as key informants interviewed for this study explained. "*The environmental degradation is so severe that young people in rural areas see no other option than to seek their luck in the cities*. *But in cities opportunities are scarce as well. On top of that they have no community, no network. Once faced with the rough life of the ghettos, the call of joining an armed group becomes ever tempting*."[64]

The impacts of climate change and environmental degradation contribute to the changing dynamics of Haiti's historical rural-urban divide. This is primarily the consequence of the rural exodus, which is largely driven by environmental degradation and exacerbated by climate change. According to one expert, the historic rural-urban divide has shifted to urban centres and their peripheries, which are characterised by an extreme gap between poor *bidonvilles* and rich neighbourhoods. "*The ghettos have essentially become the new andéyo*."[65]

Urban slums represent pockets of extreme vulnerability to poverty, with a lack of socioeconomic opportunities and significant exposure to market fluctuations, as well as crime and violence (Ferenz 2022; Hancy 2015). Overcrowded and marginalised urban spaces tend to be characterised by poor

[63] Key expert interview with INGO, 23.02.2023.

[64] Key expert interview with Haitian youth association, virtual, 20.03.2023.

[65] Key expert interview with independent consultant / cultural anthropologist, 7.02.2023.

water, hygiene and sanitation conditions, which create environmental hazards and heighten the risk of diseases spreading. A recent example includes the 2022–2023 cholera epidemic which broke out in the Port-au-Prince slum of Cité Soleil due to poor sewage and consumption of contaminated water (Kestler-D'Amours 2022) (see also chapter 2.3). "*Cité Soleil has a big canal that comes from Delmas where everyone throws their trash in. When it rains, the trash from Delmas streams downhill and piles up with the other trash. Then the water gets blocked, and floods all over the streets and in people's houses. It happens time and again. It is a catastrophe*," explained a young person living in Cité Soleil.[66] In Port-au-Prince, gangs often control access to natural resources, in particular water. During gang wars in 2022, for example, access to water for civilians was temporarily blocked by one gang, who used access as a weapon of war (Crisis Group 2023).

Since the 2021 crisis hit Haiti, urban violence has reached extreme levels, slowing rural-to-urban migration. Instead, a reverse pattern has emerged, with people fleeing urban areas to return to their ancestral regions in the countryside. This is especially the case for women, given their heightened vulnerability to the threats of extortion, kidnapping and sexual violence perpetrated by gangs. In Cité Soleil, one of the neighbourhoods that has been most affected by gang violence, according to people living there, "*almost all women have left*."[67] However, in rural areas returnees are again faced with devastated local economies, worsened by the effects of climate change and environmental degradation. Host communities suddenly have additional mouths to feed without much surplus of income coming in. Moreover, not everyone can migrate. Stories emerged during interviews of family members and friends who got stuck in life-threatening situations in Port-au-Prince due to gang violence, but who did not have the means to move back to their families in rural areas. Similarly, insecurity impedes the limited livelihood opportunities that do exist, such as the export of agricultural produce and access to markets. One societal group that is particularly affected by this are the *madan sara*, female merchants who play a key role in the local trade of food and other commodities. If insecurity increases, they are no longer able to sell their products at local markets or on the street.[68]

However, internal migration in Haiti is much more complex than the rural-urban patterns; human mobility within rural areas, including between livelihood systems, has intensified with the effects of climate change. Of note are shifting migration patterns between coastal and inland regions, following changes between and within sources of livelihood such as agriculture and fisheries.[69] As land resources dwindle, farmers have been reported leaving their lands and moving downhill towards coastal areas in search of an alternative source of income, fishing. This could be temporal and periodic, but some have also abandoned farming more definitively.[70] However, without the required experience, former farmers often engage in unsustainable and harmful fishing practices, using inappropriate gear and techniques. With fish stocks already under extreme stress due to climate change and overfishing, this causes severe tensions with local fishers and has in some cases led to episodes of conflict. To date, conflicts have remained mostly interpersonal, but there are instances in which they have escalated into intercommunal conflicts. According to an NGO staffer working in the fishery sector, "*Local fishermen are increasingly fighting with people coming from other areas as they steal their catch; pressures and tensions are definitely mounting*."[71] At the same time, the opposite movement is also occurring. As coastal and marine resources degrade, a significant number of fishers have reportedly moved away in search of an alternative income. Some former fishers have moved to urban areas, similar to farmers, but others have started to engage in agriculture, entering into direct competition over land and resources with traditional farmers. Similar to former farmers entering fisheries, short-

[66] Key expert interview with environmental activist in Cité Soleil, 23.03.2023; FGDs in Cité Soleil, Port-au-Prince, 29–30.06.2023.

[67] Key expert interview with environmental activist in Cité Soleil, 23.03.2023.

[68] Consultation with Haiti and international experts on food security, 24.01.2023; FGDs in Cité Soleil, Port-au-Prince, 29–30.06.2023.

[69] FGDs in Puits Salés and Aquin, South, 30.05.2023.

[70] Key expert interview with Haitian NGO focusing on fisheries, 17.03.2023.

[71] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

term profits often accompanied by a complete disregard for sustainable practices harm both the environment and social cohesion. This increases tensions, and in some cases leads to conflicts between farmers and fishers.

With increased competition, environmental crimes are more likely to occur, and fishing cooperatives have become much more territorial and protective over access to their waters. For example, fishers have reportedly started fishing more in protected areas or using illegal fishing techniques. This is especially the case if local law enforcement does not have the capacity to intervene. One example from the Grand'Anse Department involved seasonal fishers from the countryside who entered coastal zones with fish aggregating devices (i.e. lighting that attracted eels). This meant that former farmers were able to outcompete established fishers, which increased frustration among fishers who did not have access to the same equipment. Furthermore, fishing cooperatives no longer allow people from other areas to fish in what they consider their waters. "*We had to negotiate between local fishermen associations and rogue seasonal fishermen who did not respect customary rules and practice*," the director of a Haitian foundation that focuses on maritime protection said.[72] He continued, "*Formal conflict and justice mechanisms are absent. Our organisation tried to foster dialogue around the issue but it is not easy if frustrations run deep*."[73] Conflicts not only occur between fishers, but more broadly within the fishing industry, such as between merchants and fishers, when payments are delayed due to poor market dynamics, or internationally, such as between Haitian and Dominican fishers in marine border areas.

Conflicts between farmers and herders have become more common due to rapid land degradation. Herders in search of forage more often direct their livestock to fertile farmland or let their animals forage freely. "*The lack of forage due to drought has resulted in tensions within and between communities*," a representative of a farming association explained during a focus group discussion in Grand'Anse. "*Many herders now let their sheep and cattle roam freely during the night so that they can eat, but this damages valuable crops*."[74] In one reported case near Aquin, a village in Haiti's South Department, a farmer had cut off the ears of his neighbour's goats, as they destroyed his farmland in search of fodder. With the help of the Administrative Council of Communal Section (Conseil d'Administration Section Communale, CASEC), the case was resolved by mutual agreement and the payment of compensation.[75] In rural areas, conflicts over natural resources are mostly managed with the help of civil society, community or religious leaders, or the CASEC. In more serious cases, they are raised at the level of tribunals, but these are less embedded at the local level and are perceived to be less effective, thus generally avoided.[76]

These conflicts mostly materialise between men, but other societal groups such as women, children and elderly people, who are highly dependent on catch and yield, are also affected. There is a Haitian proverb that says, "*Fanm se vremen poto mitan nan sosyete a*," meaning "women are really the pillars of society" (Sapp Moore 2020). Indeed, rural women undertake the bulk of farming-related activities, including planting, weeding and harvesting, as well as transforming and marketing food products. In many cases, female farmers are in charge of the entire agricultural production process. This heightens their vulnerability to climate change impacts, but also puts them at increased risk when conflicts with other groups emerge. Similarly, Haitian women play a critical role in fisheries, as they are the ones in charge of processing and trade. "*Women are also often owners of fishing equipment, such as boats, which they lease to fishermen for a fee. If conflict breaks out and fishermen are no longer able to get a catch, it influences the entire market chain and puts them at risk*," explained a marine biologist

[72] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

[73] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

[74] FGDs in BonBon, Grand'Anse, 12.04.2023.

[75] FGDs in Puits Salés and Aquin, South, 30.05.2023.

[76] FGDs in Petit Trout de Nippes, Nippes, 04.06.2023.

interviewed for this study.[77] Nonetheless, not much is known about how women – or other community members such as elders – are affected by conflicts over natural resources, nor about the role they play in preventing or resolving them.

Climate change harms social cohesion

Climate change and environmental degradation are drivers of internal and external migration; as people increasingly leave their communities and families, coping mechanisms built on social cohesion and mutual aid are eroded.

Haiti has a strong tradition of mutual aid. "*Friends and family will always go and check on people that they know may be in need to offer them some support*."[78] A very common Haitian proverb is "*Yon sel dwet pa manje kalalou a*" (literally translated as "you cannot eat okra/gumbo with one finger," meaning collectively things are possible). In rural areas, for example, Haitians have typically relied on a self-organisation model called *lakou,*[79] which refers to a communal space where people are brought together through kinship ties and reciprocal working arrangements (Ferenz 2022). Other ways in which Haitians organise themselves at the local level include reciprocity networks (*moun pa*, literally "my people"), gossip and information exchange networks (the *teledjòl*, literally "mouth phone"), kinship-based inheritance and land access network (the *eritaj*, "heritage"), as well as religion-based social networks, and agricultural marketing and distribution networks (e.g. the *madan sara*) (Moore et al. 2021).

However, more frequent and intense climate *dezod* (turbulences), combined with other crises, are increasingly pushing people to leave their communities and neighbourhoods. Haitians do not necessarily use the language of climate change, but they do see and recognise that weather patterns have significantly altered (see also Fuys et al. 2021). Farmers in the North-Western Department, for example, noted that the planting season, which used to start around September and end in April, is no longer predictable. Their crops (largely carrots, cabbage and other vegetables) have all been damaged by the harsh sun. "*We used to prepare the land to plant carrots in August, and the rain came in September; now August comes, we plant, but there is no rain for months*."[80] Similarly, in the South Department, a farmer reported that "*we used to plant in March and April; this year, it is already the end of April and we still cannot plant. Compared to when I was young, we very clearly see a shift of at least a month in the planting season*."[81] None of these challenges are new to Haitians, but their accumulation has over time made traditional coping strategies more difficult.

In this context, many people have opted to leave, either by choice or out of necessity. In a way, migration has been one of the most visible manifestations of climate change impacts (not only natural hazards, but also slow-onset changes), meaning that many Haitian migrants are de facto climate migrants (Fuys et al. 2021). Most migration has been internal, from rural areas to cities (see section 4.4). However, as job and livelihood opportunities in cities have eroded as a result of the combination of insecurity and environmental degradation, urban areas are also being emptied out. Those who have the means (as well as, importantly, family ties or other connections) go abroad. Emigration is not a new phenomenon, but it has increased significantly in recent years, with many Haitians no longer able

[77] Key expert interview with Haitian NGO focusing on fisheries, 17.03.2023.

[78] Key expert interview with Haitian youth association, virtual, 20.03.2023.

[79] *Lakou* in Creole literally means "the court." The lakou system (or model) refers to an organisational structure based on extended families in rural areas organising themselves into clusters of homes around a central courtyard. The system is rooted in Haiti's plantation heritage; as a nation emerging from enslavement, Haitians adopted this system to safeguard themselves against the return of the plantation. In a way, therefore, the lakou became a form of grassroots opposition to any state action intending to reinstate the plantation order. The system also has a religious connotation, as the family compound at the heart of the lakou system was typically linked with *Vodou* practice (Corbet 2012; Ferenz 2022).

[80] Key expert interview with Haitian youth association, virtual, 20.03.2023.

[81] Key expert interview with young agronomist in the South Department, 30.03.2023.

to make ends meet due to, among other things, environmental changes. "*People are no longer able to cultivate their land due to the weather conditions (no rain); and even if they could, they would not be able to sell their crops as the roads to Port-au-Prince are controlled by gangs and there is no gas; so, people just go to the Dominican Republic*," said a young agronomist from Jacmel interviewed for this study.[82] Similarly, an activist in Cité Soleil commented that "*most of the youth in the neighbourhood are no longer here. There is not a day that goes by without someone being killed; they have to leave the country if they want to survive*."[83]

There are clear benefits with emigration, but also significant risks. Historically, emigration has made an important contribution to Haiti's economy through remittances and diaspora investments in public goods or livelihoods assets including for collective use (Fuys et al. 2021). However, these investments are not always being directed towards adaptation and climate resilience (Fuys et al. 2021). Moreover, the physical, emotional and livelihood-related risks associated with emigration cannot be underestimated. Many people leaving Haiti undergo dangerous journeys to get to the destination of their choice (or to *any* destination, provided it is out of Haiti), not to mention the structural racism and linguistic exclusion they often suffer there (Priya Morley et al. 2021; Amnesty International 2022).[84] People are also being sent back forcibly by air or sea from countries such as the United States or the Dominican Republic, as well as, increasingly, other countries and territories in the Caribbean region (e.g. the Bahamas, Cuba, Mexico, and Saint Kitts and Nevis) (IOM 2022b) (see chapter 2.5).

Migration bears another hidden cost to Haitian society, as it makes communities in both rural and urban areas less coherent and more heterogenous. For example, as fishers in northern Haiti leave and new people arrive, those remaining in local fishing communities have seen their influence over the management of marine resources weaken. The high turnover of people has also eroded social norms and practices around fisheries. "*Nowadays it is a bit everyone for themselves*," noted the leader of a Haitian NGO working with fishers across the country.[85] Similar dynamics can be seen in other livelihood systems. For example, as a result of the pressures of climate change, as well as increased poverty and landholding fragmentation, the *lakou* system, as well as once-widespread community practices, such as *konkbit*, a form of traditional labour whereby people would work on each other's land, have been progressively eroded (Fuys et al. 2021). The economic difficulties and instability that people are facing daily have reduced their capacity and willingness to come together and help each other. "*There used to be a lot of volunteering in Haiti, people helping each other in all possible ways; now it is difficult, people can no longer freely leave their homes and access some of the most deprived areas because of the gang violence*."[86]

The consequences of weakened social cohesion are especially visible in urban neighbourhoods. Due to the many changes that have occurred as a consequence of migration and displacement, people there no longer know each other. According to an NGO staffer working in Port-au-Prince, "*In rural areas there is still some resistance to violence, there is some level of protection because people know each other. But in the cities, it is all about survival*."[87] The widespread gang violence in Port-au-Prince and other urban areas of the country has led to people becoming increasingly reluctant to help others. "*There are so many guns in Port-au-Prince that even if someone calls for help in the street, nobody will come to their rescue because they do not know what they might get into; people are just trying to protect themselves*," said an interviewee living in Port-au-Prince.[88] Discussing the situation in popular

[82] Key expert interview with agronomist in Jacmel, 26.03.2023.

[83] Key expert interview with environmental activist in Cité Soleil, 23.03.2023.

[84] For example, a 2019 government survey found that almost half of Haitian respondents in Chile said they had experienced discrimination because of their race or inability to speak Spanish (McDonnell and Poblete 2021).

[85] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

[86] Key expert interview with worker at Wynne Farm Ecological Reserve, 22.03.2023.

[87] Key expert interview with INGO, 23.02.2023.

[88] Key expert interview with independent consultant / cultural anthropologist, 7.02.2023.

neighbourhoods, she continued, "*In some cases, members of armed groups seek exile in popular neighbourhoods different from those where they are from. This makes the risk of violence higher because they do not recognise the population in that neighbourhood, and vice versa, so that, if by mistake they attack someone that is a member of a gang, it is as if they attacked the gang, with huge repercussions for them and their family*."[89]

Another consequence of people leaving the cities is that, as armed groups become more and more powerful, and gain more territory, the space for social leaders and trusted actors to operate decreases. Together with Haitian and international NGOs (see chapter 4.5), social leaders have been important actors, providing much-needed humanitarian aid and basic services to people in the most deprived and vulnerable neighbourhoods of Port-au-Prince. Many have had to suspend their operations in areas such as Cité Soleil to protect their lives and those of their families (Robillard and Hsu 2023). "*If a gang has an advantage in a territory over another gang, they will burn houses down, forcing people and their relatives into exile; many of these people were working with the communities, providing education or support of some type, now they can no longer help*," said a peacebuilder working in Port-au-Prince.[90] It is also increasingly difficult for local leaders to go into the communities due to the ongoing violence, with frequent gun shots and confrontations between gangs in the streets, and the risk of kidnapping. Dwindling engagement from these local actors, in turn, opens the space for armed gangs to expand their control over and within communities (Robillard and Hsu 2023), with significant consequences for disaster response and climate change adaptation activities (see chapter 4.5).

The weakening of community response mechanisms, as well as the reduction in the response capability of the humanitarian and development sector will further intensify Haiti's crisis. Various interviewees commented that "*Children often see joining a gang as their only way out; it is a risky way out, as many of them die, and the bosses do not care about their lives, soldiers are easily replaceable. But what alternative do they have? Many have no families, there is no school, no role model for them to follow apart from the gang leaders*."[91] Violence breeds violence. "*Most gang leaders are men who have been living in horrible conditions dominated by violent logics in poor neighbourhoods. Take Andris Icard (a member of the G9's Belekou gang, most commonly known as Iska): a rival gang leader raped and killed his mum, burnt his house; that's why someone becomes a gang member, it is not politics*."[92]

It is important to note, however, that, although weakened, community mechanisms continue to exist and function in some cases. In the face of a resource-stretched state and of the increasing operational challenges that CBOs and social leaders experience in the current context of violence, instability and economic crisis, local solutions are in many cases the only ones that Haitians have at their disposal, as evidenced in the response to recent disasters (see chapter 5.3). Furthermore, for Haitians seeking a way out of their country, it is often mutual aid (in the form of people pulling together their resources) that allows them to fund their trip abroad.

[89] Key expert interview with independent consultant / cultural anthropologist, 7.02.2023.

[90] Key expert interview with peacebuilder in Port-au-Prince, 16.03.2023.

[91] Key expert interview with peacebuilder in Port-au-Prince, 16.03.2023.

[92] Key expert interview with international think tank focusing on security, 23.02.2023.

Box 9: A story of migration: Cassandra's journey from Abricots to Florida

Cassandra (not her real name) is a 61-year-old woman from Abricots. She used to lead an embroidery group that crafted textiles, including tablecloths, shirts, bags and cushions. However, their business has dwindled and now they often face prolonged periods without receiving any orders. The challenging circumstances of her life in Haiti has driven Cassandra to contemplate a new life in the United States.

"*Life is very expensive in Haiti*." Cassandra still cannot believe how the price of staple foods, such as rice, plantains and beans, have multiplied by up to 10 since September 2022. In the past, Cassandra's husband used to grow their own food, but the scarcity of rainfall and the destructive aftermath of Hurricane Matthew have rendered the land unsuitable for cultivation. Economic activities have become nearly impossible, a situation that is further exacerbated by the prevailing insecurity, especially for women. "*It is the women that are working the hardest (…) but it certainly is not enough for their and their family's needs*." Cassandra's concerns extend to her children's future. She and her husband, who works at a school in Haiti, have six children residing in the country, two of them are nurses, another two are agronomists and the others started university but did not finish, yet none of them earn a substantial income.

"*I hear that a lot of people are leaving,*" Cassandra shares, reflecting on the difficult decision she made herself. Currently, she finds herself in Pompano Beach, Florida, staying with a cousin, who is a US citizen. Despite lacking proper documentation, she holds a visa and hopes to find domestic work that pays "*under the table*." Her primary goal is to secure employment that can support her children. Cassandra knows that escaping is a privilege. Financial constraints hinder numerous individuals, including her own brother who lives in Delmas, from embarking on such journeys. Weary from the challenges she has faced, Cassandra expresses a profound sense of despair, "*Everyone says that life is finished. I do not have hope anymore.*"

Climate change increases young Haitians' vulnerability

Climate and environmental pressures put livelihood and protection systems at risk, affecting all societal groups but especially young people and children, exposing them to violence, exploitation and abuse.

Haiti's population has a median age of 24 years. About one third of Haiti's population are under 15 years old, and an estimated 21 per cent are between 15 and 24 years old. This makes Haiti's population one of the youngest in the Americas and the Western Hemisphere (World Bank 2021). However, it also makes Haiti one of the most troubled countries in the world, as the country suffers from political instability, poor public services, gang violence and a lack of socioeconomic opportunities. Understandably, in this context, climate change and the environment do not list high on young Haitian's concerns, even though they play a key role in shaping their vulnerability (UNICEF 2021).

Young Haitians are particularly vulnerable to climate and environmental pressures given the role they play within households. For example, younger people may be tasked with fetching water or collecting cooking fuel, as well as earning an income for the family and providing care to family members.[93] Natural hazards, such as the 2010 earthquake and Hurricane Matthew in 2016, have caused humanitarian crises from which most Haitians will need years to recover. Slow-onset climate and environmental pressures, such as land degradation, biodiversity loss and water stress, have also exacerbated livelihood conditions and the humanitarian situation on the island (USAID 2020b). In such

[93] Key expert interview with independent consultant / cultural anthropologist, 7.02.2023.

times of economic or environmental crises, the many responsibilities that young Haitians already carry become more and more burdensome, hampering their personal development, education and general well-being. With increased pressures, young people in Haiti become more susceptible to harmful coping mechanisms, as well as exposure to violence, exploitation and abuse (UNICEF 2021). This is especially problematic for young women, who have long faced systematic gender-based exclusion, cultural and legal discrimination, and SGBV (Gammage 2004). Women's protection issues risk worsening when disasters caused by natural hazards occur. For example, during the recovery and reconstruction period following the 2010 earthquake, women experienced increasing gender-specific obstacles, including meeting family survival needs, exclusion and stigmatisation, as well as higher exposure to violence and exploitation (Horton 2012). While SGBV was problematic prior to the 2010 earthquake, it increased directly afterwards, as is commonly seen during disasters caused by natural hazards (UNFPA 2012).

In rural areas, young people involved in farming, pastoralism and fishery are exposed to high levels of uncertainty, with limited opportunities to make a living pushing many to migrate to cities. "*My four children, all of them recently graduated with higher degrees in nursery and agronomy, remain unemployed and stuck in their home village*," a woman from Abricots said.[94] With no job opportunities and no money to migrate elsewhere, even young people with higher education have limited options. "*My son has a dream to have a poultry farm, but he does not have the means to start this business. No one here has*."[95] One young woman from Grand'Anse explained how the poor climate and environment discourage young people from engaging in the rural life, "*Due to the intense periods of drought, youth living in rural areas no longer see a future for them in agriculture*."[96] For decades, moving to Haiti's provincial cities or the Port-au-Prince metropolitan area has been a way for young people to avoid dependency on the increasingly unpredictable climate and environmental stress (Hancy 2015). Rural-out migration used to provide some opportunities to start a small business, or learn a technical skill or trade. "*Today, young men rather dream of owning a motorbike and becoming a taxi driver in the city than to farm their own land*."[97] Similarly, young women leave rural areas due to a lack of opportunities and poor services.

However, the opportunities that young people seek in urban areas remain for the vast majority of them nothing more than a faraway dream. Many of those migrating from rural areas end up in more extreme poverty in cities, with few options to cope. "*For young people arriving in Port-au-Prince, the few things they can do nowadays to make some kind of a living is getting involved in crime and violence*."[98] In difficult neighbourhoods such as Cité Soleil, most children miss out on any form of education and lack positive role models, making them susceptible to recruitment into armed groups, a path of no return for most of them. "*Some youth are actively sought out by armed groups for recruitment, and when they refuse they get killed. It is either fleeing, joining or getting killed*."[99] Young women migrating to the city often have to rely on sex work to survive, including at a very young age (Kilroy 2019).

The increase in urban violence since 2022 has exacerbated the vulnerability of children and young women in particular. Hundreds of thousands of children have been left without regular access to schools, limited access to water and alarming malnutrition rates (UNICEF 2022). Of particular concern are kidnappings and torture, and, especially for girls and young women, SGBV (UNFPA 2012). During the current security crisis, in fact, violence against women has often been weaponised by gangs as a

[94] Key expert interview businesswoman in Abricots, 12.04.2023.

[95] Key expert interview businesswoman in Abricots, 12.04.2023.

[96] Key expert interview with young agronomist in the South Department, 30.03.2023.

[97] Key expert interview with worker at Wynne Farm Ecological Reserve, 22.03.2023.

[98] Key expert interview with activist in Port-au-Prince, 23.03.2023.

[99] Key expert interview with activist in Port-au-Prince, 23.03.2023.

form of intimidation and to prevent resistance, as well as to deliberately disrupt the social fabric and bolster their position of power. Rape or the threat thereof is also frequently used against kidnapped women and girls to press their families to pay the ransom (DiPierro 2022; BINUH and OHCHR 2022). Young people of sexual and gender minorities that conflict with conventional Haitian norms are also at high risk of violence in urban areas, including beatings, shootings, stabbings, stoning, sociopolitical violence and stigmatisation (Rahill et al. 2020). Despite this, gang leaders have in some cases acted as power brokers, contributing to enhanced conflict prevention and resolution in difficult neighbourhoods, as reported during a focus group discussion in Cité Soleil.[100]

The combination of violence and disasters linked to climate-induced natural hazards risks devastating and long-term effects on the mental health of Haiti's children and young adults. The link between global warming and mental health is now well established. According to the IPCC, the worsening climate crisis poses a significant threat to the mental health of the population, leading to psychological disorders such as anxiety, depression, psychological distress and suicidal behaviour. The more extreme the climatic events that people face, the greater the psychological trauma (IPCC 2023). For young Haitians, natural hazards, as well as other risk factors such as societal injustice, SGBV, neglect, abuse or food insecurity, have a profound impact on their mental health (Dass-Brailsford et al. 2022). A study involving young Haitians found that almost 37 per cent of young participants met the criteria for major depression or post-traumatic stress disorder (PTSD) (Eustache et al. 2017). According to another study conducted after the 2010 earthquake involving Haitian children, participants expressed feelings of being unloved, lacking safety, vulnerability, and low self-esteem and self-efficacy – symptoms that are strongly associated with the development of anxiety, depression and PTSD (Roysircar et al. 2019). In the words of a peacebuilder working in Port-au-Prince, "*Haitian children today have grown up knowing only violence, they have witnessed terrible situations, and their trauma has never been dealt with. Many of these children have become gang leaders themselves. Violence breeds violence*."[101] Despite it being a widespread problem, mental health issues in Haiti remain a taboo topic that are not openly discussed (Sharpe and Davison 2021).

Despite these clear climate-related threats, there is reportedly a "*complete lack of awareness about climate change and its risks amongst youth*"[102] in rural as well as urban areas. A poll on climate change effects conducted by UNICEF in 2021 with more than 1,800 Haitian children and adolescents confirmed that almost half of the respondents between 15 and 25 years old did not know about climate change effects. Similarly, 44 per cent of young people felt they were not informed about the effects of climate change and the vulnerability linked to natural hazards such as cyclones, floods, and landslides. Overall, 43 per cent of the respondents did not know how to reduce these risks (UNICEF 2021). Indeed, this seems to reflect a broader lack of awareness about climate change within Haitian society and especially in rural areas. Experts interviewed for this study noted that farmers notice the changes in seasons, but do not know the concept of climate change. "*They just say that the seasons have become crazy*."[103] Awareness of climate change translates into religious beliefs in many cases. "*The way people largely understand climate change is that it is God's doing. They believe that their contract with the land is over and their blessings have ended with God. People think that God is punishing them*."[104]

Moreover, young Haitians not only appear to lack awareness of climate change and its associated risks but also demonstrate a general disinterest in the natural environment. This disengagement is closely linked to young people increasingly removing themselves from rural life. This is partly due to climate change and dwindling natural resources, which aggravate the hardships and uncertainties of

[100] FGDs in Cité Soleil, Port-au-Prince, 29–30.06.2023.

[101] Key expert interview with activist in Port-au-Prince, 23.03.2023.

[102] Key expert interview with independent consultant / cultural anthropologist, 7.02.2023.

[103] Key expert interview with agronomist in Jacmel, 26.03.2023.

[104] Key expert interview with agronomist in Jacmel, 26.03.2023.

working the land, fishing or livestock rearing. However, it is also linked to high start-up costs, and the significant risks associated with failed harvests, which dissuade young people from engaging in farming. "*You need money to plant. With more extreme weather, you need to buy the right seeds, equipment, fertiliser and pesticides. You need a water system, otherwise you risk losing it all*."[105] The stigma linked to "peasantry" appears to play a key role as well. With social norms and aspirations shifting, rural people – commonly referred to as "peasants" – are often looked down upon, seen as uneducated and backward. "*Nowadays, youth don't care about farming anymore. They want to move to the city, become urban professionals, entrepreneurs. Peasants are seen as poor people*."[106]

Despite this, some young people actively embrace rural life, and try to change negative stigmas by becoming environmental and climate activists. For example, a young agronomist interviewed for this study talked about his involvement in raising livestock and apiculture, carrying his "peasant lifestyle" with pride and finding a connection with nature from living in the countryside. "*Most people these days no longer see the value of being from the countryside, but I am proud to say that I am a peasant; everyone would benefit from being involved in agriculture more, it would help them understand what ecosystems can do for us*."[107] Similarly, a young woman from Cité Soleil said, "*Since I was a young kid, I was the one always putting the trash in the bin, not just throwing it everywhere. I love the environment and I have decided to make it my life mission to share it with others, so that people can see the damage that has been done, and we do something to repair it*."[108]

Box 10: An Environmental Activist from Cité Soleil

People in Cité Soleil remember Letitia (not her real name) from a young age collecting trash and keeping it in her backpack until she could find a good place to dispose of it. Today, she is a young environmental activist still living in Cité Soleil, who is involved in various neighbourhood initiatives. She even won awards for her environmental work in the slum. Although the armed groups make it extremely difficult for her, Letitia continues to raise awareness about the importance of waste management and mobilise the community in reducing pollution. She dreams of a day where everyone in Cité Soleil can live without being surrounded by trash.

Cité Soleil is and will always remain her home, despite all the difficulties of living there. Letitia, herself a victim of extreme poverty and domestic violence, explains how the situation went from bad to worse in recent years, "*People are dying every day. Before, it used to be mostly gang members who were getting themselves killed. Nowadays, everyone is at risk. Those who could flee, have left, especially women. Most of the boys and girls who grew up here and got trapped have now joined a criminal gang*."

For Letitia, a major issue is the lack of positive examples, people who inspire and allow others to hope for a better future. There were few role models when she was growing up and even fewer today. "*If you ask boys from the ghetto of 10 or 12 years old what they want, they will say to be like the armed group leaders from their neighbourhood*." Even though very few women remain in the area where Letitia lives, she refuses to leave as she does not want to give up on the children she works with. She fears that if she leaves the slum, they will end up as gang members. "*It motivates me to say that I am from Cité Soleil. I have made a lot of effort to improve my life and to be a person from this neighbourhood that has succeeded in life. I want people to know that there are good people in Cité Soleil*."

[105] Key expert interview with young agronomist in the South Department, 30.03.2023.

[106] Key expert interview with agronomist in Abricots, 24.03.2023.

[107] Key expert interview with agronomist in Abricots, 24.03.2023.

[108] Key expert interview with environmental activist in Cité Soleil, 23.03.2023.

Institutional fragility and violence undermine climate action and finance opportunities

Institutional fragility and widespread violence in Haiti further intensify climate and environmental risks, which undermine the implementation of effective climate action and jeopardise the country's access to critical climate finance opportunities.

Haiti's political institutions, including those with a climate change mandate, are fragile, which undermines their capacities to address the impacts of climate change on various dimensions of security.[109] Institutional fragility in Haiti has its roots in the country's colonial history and the perpetuation of extractive colonial structures, as well as the near-constant state of political and social turmoil over the past several decades (see chapter 2.2). This situation has resulted in underinvestment in and neglect of Haiti's state institutions, which has come at the detriment of their ability to fulfil their mandates – both in terms of policy development and implementation, and effective service provision. The lack of staff, equipment and budget is a reality for most Haitian institutions at all levels, but the situation is especially dire in the departments outside of Port-au-Prince, which have historically been allocated little from the national budget. In 2006, only 1 per cent of the budget was invested in regions other than the Western Department where Port-au-Prince is located and allocations have never run higher than single digits (Robillard and Hsu 2023).

Challenges related to forming and retaining human capital in Haiti have been an important contributor to the country's institutional fragility. Decades of underinvestment in resourcing, training and capacity building of staff and experts within state institutions, as well as worsening education facilities, have contributed to undermining human capital development in Haiti (OECD 2021). The current situation of political instability and ongoing violence has made this worse, as Haiti's educated classes, and anyone that can, are increasingly seeking to emigrate in search of safety for themselves and their families, as well as opportunities to support their communities back home (see chapters 4.2 and 4.3). The migrant parole programme launched by the United States at the start of 2023 has only intensified this dynamic.[110] "*To apply you need passports and a sponsor in the US, which means that the programme really targets middle to upper management people; for us* [an INGO]*, recruitment and retention is already challenging, now it will be even more so. We expect to lose a significant number of managers*."[111] Ultimately, Haiti's increasing lack of skilled and competent workers further compounds the already limited ability of institutions to function properly.

The lack of staff, resources and equipment hinders the planning and implementation of climate action in Haiti at various levels. While Haiti has several policies and strategic plans in place to address climate change (both in terms of adaptation and mitigation), their implementation remains limited. For example, local authorities in rural areas reportedly lack sufficient financial resources (local authority staff are often underpaid, when paid at all), as well as the staff and equipment required to implement climate action in their constituencies. In the consultations conducted for this report, interviewees noted that "*government representatives would always say they do not have the means to support the population during difficult times*" and that they blamed the central government for this.[112] As a result, their ability to meaningfully engage in climate action, whether through design,

[109] According to the OECD definition, fragility is the combination of exposure to risk, and insufficient coping capacities of the state and public institutions (as well as, more generally, systems and communities) to manage, absorb and mitigate those risks. Fragility varies in intensity across six dimensions: economic, environmental, political, security, societal and human (OECD 2022b).

[110] Launched in January 2023, the humanitarian parole programme will let 30,000 migrants a month from Venezuela, Cuba, Nicaragua and Haiti enter the United States for two years if they apply for it in their home country – as opposed to making the dangerous trip to the overwhelmed US southern border and Florida Keys (those entering the US illegally will be automatically expelled). The humanitarian parole programme requires immigrants to first have a sponsor in the United States who will take financial responsibility for settling them in, and expeditiously offers a work permit for those approved. See: USCIS (2023) and Césaire (2023).

[111] Key expert interview with Haitian NGO focused on sanitation, 21.03.2023.

[112] FGDs in Petit trou de Nippes, Nippes, 4.06.2023; FGDs in BonBon, Grand'Anse, 12.04.2023.

implementation or resource acquisition, is significantly hampered (see chapter 5). The development of plans and strategies to address climate change impacts and the challenges that they pose to various dimensions of security in Haiti is also hampered by a lack of reliable climate data. Climate data on Haiti has improved in recent years, but significant gaps remain in terms of localised data, and the availability of the data series and catalogues that would be required to create baselines, define indicators and develop meaningful projections (GCF 2021).

Political instability and instances of financial mismanagement further limit resources for climate action. Political instability in Haiti has impacted policy continuity and follow-through as leaders and alliances change or shift frequently (see chapter 2.2; BTI 2022). Coupled with the numerous other crises that have affected Haiti over the last decade, including those linked to the devastating impacts of natural hazards, this has meant that policy priorities and resources have focused on more traditional governance, humanitarian or security issues, making it difficult to shift resources and attention towards addressing the impacts of climate change on various dimensions of security. Alleged instances of financial mismanagement (see chapter 4.1) have further reduced the already limited resources for climate action (Hsu and Schuller 2019).

Increased violence linked to armed gangs hinders efforts to address the impacts of climate change on various dimensions of security in the country. Armed gangs have come to control areas of strategic importance across Port-au-Prince, other Haitian cities (e.g. Cap Haitian) and rural areas, including areas of environmental importance (e.g. watersheds, basins and reservoirs) and important logistical infrastructure (e.g. roads and ports) (see chapter 2.1).[113] This has considerable implications. For one, it risks directly adding to climate impacts given that many of these zones can be tampered with and exploited, such as reservoirs or areas covered in trees that can be cut down for charcoal. Second, control over these zones can block or disrupt service delivery, the transportation of materials or access to resources in other areas. For example, interviewees from NGOs that are active in Artibonite said that farmers can no longer cultivate rice as gangs are restricting access to water downstream of irrigation schemes.[114] This poses challenges for implementing climate adaptation efforts across the country and increases conflicts within communities over access to critical resources. For example, there have been cases of violence between upstream and downstream river users as "*people fight to get water to their fields when they are at the end of the canal*."[115] Furthermore, widespread insecurity continues to disrupt basic social service delivery in the capital and across the country.

Gang-related violence puts the safety of climate actors at risk, especially in environmentally fragile and deprived areas of the country, leaving those most vulnerable further behind. In the context of high insecurity, it is difficult for those actors that would typically be in charge of implementing climate-related and environmental interventions, such as the state, CBOs, Haitian CSOs and NGOs, INGOs, and UN agencies, to operate effectively and safely. For example, Haiti's rampant insecurity makes it increasingly difficult to bring people together to implement projects and activities in the most vulnerable and difficult-to-access neighbourhoods. Many NGOs indicated that they had to "*reduce access to specific services as it is now impossible to deliver them because of insecurity*."[116] Since these areas are often under serviced or particularly susceptible to environmental degradation and the impacts of climate change, the further challenges posed by violence risk leaving especially disadvantaged communities behind. This will only aggravate existing grievances within these communities, compounding dissatisfaction, and could lead to protests against the state and international partners given their perceived failure to act.

[113] Key expert interview with international think tank focusing on security, 23.02.2023.

[114] Key expert interview with INGO, 23.02.2023.

[115] Key expert interview with INGO, 1.03.2023.

[116] Key expert interview with INGO, 23.02.2023.

More generally, violence, and other economic, political and social challenges in Haiti drive up operational costs for climate and other interventions, which can act as a disincentive to their implementation in the medium to long term. Criminal actors have reportedly been taking or destroying assets needed for climate and environmental programmes or activities, such as batteries for a solar power installation in one case.[117] Given the high degree of impunity enjoyed by criminal groups in the country, and the lack of reach the state currently has within the zones it controls, there is little to no redress available.[118] Of course, gangs are not the only groups who may undertake these actions. In times of mass strife, protestors have themselves taken or destroyed assets. During the lockdowns that were imposed in 2020–2021 to control the spread of the COVID-19 pandemic in Haiti, for example, the premises of several domestic and international NGOs were looted (e.g. a WFP stockpile of food, which was to be distributed for humanitarian purposes). Some of these incidents have been linked to gang activities, but others were attributed to "*a lot of hungry mothers that wanted to find food during the crisis*," according to observers.[119] Affected communities have also committed these acts because they felt that the NGOs were not supporting them. In general, operational costs for development and humanitarian organisations are extremely high, with costs often further increased by project overruns and delays given the difficult political and security situation. This can act as a disincentive for climate action (Craford et al. 2015; ODI 2022). The potential threats to life and the costs associated with securing staff and equipment increase the costs even further.

"Everyone says that life is finished. I do not have hope anymore." – Cassandra, 61-year-old woman from Abricots, interviewed for this study.

In some cases, engaging with criminal groups may be needed to advance climate projects and action in the country, which risks reinforcing the power of gangs and broader conflict dynamics. The fact that armed gangs control critical areas and infrastructure in the country may mean that implementing climate adaptation and environmental protection projects and interventions is subject to direct or indirect engagement with (and approval from) gangs. However, working with gangs comes with considerable risks and implications. First and foremost, there is a real risk that people will be harmed, especially in Port-au-Prince (Craford et al. 2015). In one instance, the staff of an environmental NGO had to "*flee since gangs took control of their homes*" putting them at direct risk.[120] Furthermore, as a price for engagement, these groups may seek to co-opt materials for their own wealth, or use interventions as a way to bolster their image or political ambitions. In the words of an interviewee from a difficult neighbourhood in Port-au-Prince, "*I went to the soccer field, there was not one tree there, no shade. I told them [members of an armed group], we need to plant moringa trees: in a few months, you will have green all over. Two young guys came and asked what is in it for us? You are making your money on projects, we do not know where you are getting money but not one tree will be planted here unless we get money from it*."[121] Engagement, therefore, risks reinforcing the power of these groups. Moreover, given the possibilities for enrichment, either material or political, that certain climate interventions (and especially those around infrastructure) entail, they may attract the attention of other groups who wish to get these advantages for themselves. In these cases, interventions can aggravate conflict dynamics and lead to further violence. "*After the 2010 earthquake, as money started to dwindle, and some groups started losing out on funds, conflicts between them and other groups emerged, and so did threats to humanitarian organisations*," reported a representative of an INGO.[122] At the same time, without engaging armed gangs in the territories they

[117] Key expert interview with UN agency focused on sustainable development and governance, 10.02.2023.

[118] Fear of retaliation or reprisals by criminal groups and the limited functionality of courts means criminal actors get away without punishment. According to some individuals, criminal trials have not taken place in years. Consultation with Haiti and international experts on human rights, criminality and justice, 13.02.2023.

[119] Key expert interview with independent consultant with expertise in food security, 7.02.2023.

[120] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

[121] Key expert interview with worker at Wynne Farm Ecological Reserve, 22.03.2023.

[122] Key expert interview with INGO, 24.03.2023.

control, activities may not occur at all, or may even pose a risk to climate and environmental actors. "*They [gangs] can give problems, for example, when I receive things for the kids or young women that I work with. If I received too much, then I would need to speak to them, make sure they are ok with that*."[123]

The challenges posed by institutional fragility and violence can hamper Haiti's opportunities to access climate finance. The higher costs associated with operating in Haiti, characterised by pervasive levels of violence, as well as significant institutional challenges may be too much for some international investors, such as large climate funds, to undertake – as institutional investors typically focus on contexts where investment returns are highly likely.[124] Foreign direct investment (FDI) in Haiti is another example of capital flight due to the profound political and security challenges. Since 2017, there has been a drastic reduction in total FDI. FDI in Haiti fell from USD 310 million in 2017 to USD 50 million in 2021 (UNCTAD 2022). Given the state of Haiti's economy, domestic sources of funding for climate action are unlikely to make up any funding shortfalls.

Ultimately, the political and security crises in Haiti undermine the country's ability, and that of its citizens and organisations, to effectively address the impacts of climate change on various dimensions of security. High levels of poverty and the increasing cost of living, amplified by violence in the capital region and the constant stream of climate-induced disasters, mean that people are struggling just to get by. Consequently, investing in climate change adaptation or environmental protection is low on many people's list of priorities. Even for those who would have the funds or resources to undertake climate security action, the political and security environment constrain the efficacy of possible interventions or the desire to invest in the first place.

Figure 10. "Growing rocks" in Seguin, Haiti, due to erosion © Foundation Seguin

[123] Key expert interview with activist in Port-au-Prince, 23.03.2023.

[124] The limited technical capacities available to develop proposals to access climate finance is another important obstacle that was reported by experts interviewed for this study. See also: UNDP (2021).

Responses to climate security challenges

Climate change and environmental pressures in Haiti are nothing new, nor are violence and insecurity. In recent years, attempts have been made to address both climate change impacts, for example, by supporting adaptation actions, and conflict prevention and peacebuilding. These efforts have mostly been carried out by CBOs and associations, as well as INGOs and UN agencies. At the governmental level, critically important strategies and plans for climate change adaptation in various sectors have been issued, but their implementation lags behind. Among all actors, however, there has been limited acknowledgement and subsequent action to address the linkages between climate change impacts, environmental degradation, and violence and insecurity. This chapter does not attempt to provide a comprehensive review of all climate change and security initiatives, but rather reviews current efforts in this field and outlines some of the constraints that have impeded more integrated actions to this day.

Institutional and policy responses

Over the last decade, the Haitian government has invested significantly in building an institutional structure to address climate change (both in terms of adaptation and, to a lesser extent, mitigation). The MDE is the primary governmental body with a mandate on climate change, which it exercises through the Climate Change Directorate.[125] Other bodies have competences on climate change or related areas, including the Interdepartmental Committee on Land Planning (CIAT) and the newly created General Civil Protection Directorate (DGPC), which manages disaster risk management. The Ministry of Finance, the Ministry of Natural Resources and Rural Development and the Ministry of Planning and External Cooperation are other key actors in this space, though their engagement on climate change has, to date, remained limited.[126]

Several policies and plans have been developed to guide Haiti's response to climate change and sustainable development. Some of these were developed in the early 2000s, well ahead of their time. However, most have been developed quite recently, including those required under Paris reporting obligations (see box 11). Overall, while these strategies articulate priority areas that target the linkages between climate change and human security, such as livelihoods, food security and poverty, they do not necessarily spell out how these can be addressed in an integrated manner, and do not have an explicit conflict prevention and peacebuilding lens. Furthermore, the links between climate and security remain unarticulated in Haiti's strategies and policies that more specifically target sustainable development. For example, Haiti's Strategic Development Plan 2010, which envisions Haiti achieving the status of an emerging country by 2030, only discusses climate change in terms of vulnerability to extreme weather events. The 2021 National Integrated Framework for Financing Haiti's Sustainable Development does not explicitly acknowledge the need to tackle the climate and environmental drivers of insecurity and crisis in Haiti, even though the framework's focus is sustainable development. Some of these strategies are also quite dated and would need to be revised to reflect the current context of the country, including how climate change impacts affect security across all dimensions (e.g., environmental, economic and politico-military).

[125] More specifically, the MDE is mandated to develop climate change adaptation programmes, mitigation measures and monitor related progress, as well as to formulate and enforce the government's environmental management policy. The MDE is also the Nationally Determined Authority (NDA) for many climate funds and leads the NCCC, a cross-ministerial working group on the implementation of the NAP (GCF 2021).

[126] Key expert interview with INGO, 01.03.2023.

Box 11: Haiti's main policies and strategies in the area of climate change

In December 2022, the government launched the National Adaptation Plan (NAP), with the aim to address the long-term impacts of climate change, and fostering adaptive capacity and resilience to climate-related risks. The National Committee on Climate Change (NCCC), a cross-ministerial group, is responsible for implementing the NAP (NAP Global Network 2023; GCF 2021).[127] The 2022 NAP replaces a previous plan that was devised by the government in 2006 and revised in 2017, which proposed various projects and institutional mechanisms to facilitate implementation through a country-led and participatory approach.

The government introduced the National Climate Change Policy (Politique Nationale de lutte contre les Changements Climatiques, PNCC) in 2017, with the aim to steer Haiti's socioeconomic development towards a more low-carbon regime by 2030, in line with the country's Nationally Determined Contributions (NDC 2015). The PNCC envisions a substantial reduction in the vulnerability of Haiti's population and economy to climate change. This will be achieved through the adoption and implementation of appropriate and effective adaptation measures that align with the SDGs and Haiti's Strategic Development Plan for 2010–2030 (PSDH 2010).[128] The National Risk and Disaster Management Plan 2019–2030, approved by the government of Haiti in 2020, took into account the multi-risk and recurring nature of disasters in Haiti, which are exacerbated by climate change and multidimensional poverty. Acknowledging these linkages, the plan emphasises the need for resilience in Haiti while promoting sustainable and inclusive development.

Figure 11. Mangrove restoration in Haiti © FoProBim

[127] Haiti's NAP identifies agriculture, water, healthcare and infrastructure as priority sectors for climate action, and estimates a budget of USD 980 million to implement the 21 highest-priority actions (out of 340 identified actions). (NAP Global Network 2023).

[128] However, the 2010 PSDH does not focus effectively on climate change.

Even when strategies and plans exist, their implementation remains challenging. Though the government has clearly signalled and articulated its climate ambitions, climate action remains under-prioritised and under-resourced.[129] Greater focus is placed on humanitarian and more traditional development concerns, in addition to managing the breakdown in security in the capital. Climate plans and strategies frequently remain unimplemented due to financial constraints or a shortage of human resources. One commentator working with the government in a rural department noted that "*the agricultural offices barely have even one person in each region*," and are "*simply understaffed and without resources*."[130] The centralised character of the Haitian state significantly constrains the transfer of resources to local authorities, and limits bottom-up approaches that strengthen participation in planning processes, identify needs and improve access to resources (GCF 2021). Furthermore, cooperation across sectors remains limited. On the one hand, there is a lack of awareness at the government level of the linkages between climate and security, and hence the need for integrated action. On the other hand, significant issues around data and information sharing across government departments and levels persist, reflecting a broader coordination problem (GCF 2021).

Environmental protection and conservation are relatively well developed but poorly implemented or enforced. The Haitian government began establishing protected areas across the country in 1968. Today, there are about 26 protected areas, which represent nearly 7 per cent of the country's land and 1.5 per cent of its waters. Half of these were created with the technical assistance of the United Nations Environment Programme (UNEP). Haiti joined Cuba and the Dominican Republic as part of the Caribbean Biological Corridor initiative, which strives for ecosystem connectivity across countries (UNEP 2021). Two marine protected areas were created in 2014 and Haiti has been part of the Caribbean Challenge Initiative since 2016. The Fisheries Law prohibits the harvest of any type of coral, sea fans or calcareous rocks from the oceans (UNEP-WCMC 2015). However, despite these promising initiatives, their implementation has been limited or completely absent throughout the country. This is largely due to a lack of resources or capacities, or government dysfunction resulting from security concerns or other crises. Similarly, environmental protection laws are rarely enforced (UNDP 2015).

The environment is seldom a priority for Haitians. A Haitian environmentalist interviewed for this study explained, "*How do you convince people to protect and restore the natural environments when their main concern is to find enough food to survive, or to rebuild their home after yet another disaster? People have bigger issues than thinking about nature*."[131] Environmental conservation, restoration and law enforcement are challenging in all countries, but especially in Haiti, where disasters caused by natural hazards, political and humanitarian crises, and extreme poverty present major obstacles. Raising awareness is an ongoing challenge. In addition, the deteriorating security situation since 2021 has posed additional logistical hurdles and safety concerns making environmental work in Haiti extremely difficult and dangerous (Fox 2022).

International responses

UN agencies and INGOs are key partners for Haitian governments, NGOs and CSOs in executing programmes across various areas. In 2021, total ODA disbursements to Haiti amounted to USD 951.935 million, close to its 2020 level of USD 914.618 million (OECD 2022).[132] Their work has primarily focused on humanitarian assistance, but also more traditional development programming and, more recently, disaster risk reduction (DRR) and climate change adaptation. International humanitarian

[129] Key expert interview with INGO, 01.03.2023.

[130] Consultation with Haiti and international experts on food security, 24.01.2023.

[131] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

[132] According to the OECD, the top 10 donors to Haiti in 2021 were the United States (USD 255.135 million), the Inter-American Development Bank (USD 159.547 million), the World Bank (USD 133.533 million), EU institutions (USD 91.012 million), France (USD 57.5 million), Canada (USD 49.334 million), the UNDP (USD 34.3 million), Switzerland (USD 33.944 million), the Caribbean Development Bank (USD 15.833 million) and Spain (USD 11.154 million) (OECD 2022a).

assistance to Haiti skyrocketed after the 2010 earthquake but has since steadily declined (World Bank 2022). In 2010, 25 per cent of all government spending came from ODA, while that figure dropped to 5 per cent in 2019 (World Bank 2022). Nevertheless, ODA remains crucial to address the consequences of disasters, such as Hurricane Matthew in 2016, the 2021 earthquake, the ongoing challenges of gang violence, and the resulting food insecurity and cholera outbreak. However, ODA is by no means enough, with only 50 per cent of OCHA's appeals being met since 2020 (FTS 2020; 2021; 2022). It is unlikely that this will change for 2023, given competing international emergencies and the reduction in the global humanitarian budget.

To date, very few humanitarian organisations have explicitly integrated climate and environmental challenges, and even fewer the linkages to peace and security. However, there is an increasing awareness of the need to do so, and some UN agencies and INGOs have been working towards adding an explicit climate lens to their work. For example, WFP's 2019–2023 country plan for Haiti explicitly aims to "*support the adaptation of vulnerable populations in fragile ecosystems affected by climate change*" and stresses that "*climate resilience remain*[s] *an important strategic priority in WFP's mandate in Haiti*" going forwards (Didier 2019). According to WFP, their Food for Education and Child Nutrition Programme in Haiti provides an example of how to successfully combine climate adaptation with food and livelihood security, as well as child protection. By supporting children in schools through the provision of *cantines scolaires* (or "school meals"), whereby children receive free meals made from local agricultural produce, the programme also benefited local farmers, who could access a more stable market. An additional benefit involved coupling this initiative with capacity building around agroecology and climate-smart agricultural practices (Didier 2019).[133]

Typically, ODA has focused on more traditional development objectives, although climate change has increasingly become a focus. Development aid in Haiti has focused on long-term reconstruction, strengthening service delivery, and promoting economic growth and poverty reduction, while tackling some of the key institutional and policy challenges that undermine development. Over the past decade, a lot of development agencies and INGOs have included a strong focus on climate change in their work, and especially climate change adaptation and DRR. For example, UNDP is implementing a project funded by the Green Climate Fund (GCF), which aims to integrate climate change risks into national development planning processes. Meanwhile, IOM is working to support communities and families to build houses that can withstand a weather-induced disaster and are adapted to the broader environmental context.[134] Haiti receives substantial development aid for security, including a former UN peacekeeping mission, the current political mission (BINUH), and considerable support from bi-lateral partners to train and equip the national police force. None of these missions or support packages, including training, incorporate climate change into their mandate and activities.[135]

International organisations have been instrumental in supporting the Haitian government to develop key policies and strategies to address climate change and, in some cases, to set up the institutional structure needed to operationalise them. For example, in southern Haiti, UNEP contracted the local directorates of the MDE, the National Protected Areas Agency, the MARNDR and the Public Security Directorate as project implementation partners. This helped strengthen their technical and material capacities, ensure ownership and the monitoring of results, as well as increase their sustainability. Moreover, during the course of the project, these institutional partners actively contributed to activities to protect ecosystems, adapt and build resilience to climate change in collaboration with local communities.[136]

[133] Consultation with Haiti and international experts on food security, 24.01.2023.

[134] Consultation with Haiti and international experts on migration and displacement, 8.02.2023.

[135] Key expert interview with UN agency focused on peacebuilding, 27.03.2023.

[136] Some of the activities carried out over the course of the project include mangrove planting, reforestation, agroforestry, aquaculture, the establishment of EWSs, and the development and implementation of management plans for marine and terrestrial protected areas. Source: Personal communication with UNEP representative, 09.06.2023.

UN agency and INGO programmes have critically addressed climate and environmental challenges from tackling food insecurity to investing in education and awareness raising on environmental protection. UNDP, for example, collaborated with a regional NGO, Environmental Protection in the Caribbean, to provide science education focused on ecology and biodiversity, and the concepts of watershed function and water conservation in small villages in Haiti (EPIC 2022). Disaster risk management and early warning has been another key area of international focus. The drafting and adoption of the National Disaster Risk Management Plan (PNGRD) 2019–2030, which today still serves as a strategic framework and national repository for DRM efforts in the country, was achieved with UNDP's support.[137] UNDP also produced the *Methodological Guide for the Reduction of Natural Risks in Urban Areas of Haiti* in 2015, which proved to be a valuable tool to improve knowledge of disaster risks in the Grand'Anse Department when Hurricane Matthew hit (UNDP 2021). WFP has been increasingly active in this space, marrying its food security work with a focus on DRR. For example, in October 2022, in collaboration with local climate-risk financing actors, WFP launched an agriculture index-based micro-insurance pilot to reduce risks linked to excess rain and rain deficit for up to 10,000 smallholder households in the South and Grand'Anse. "*In addition to reducing farmers' vulnerability to climate onset events such as drought and floods, this was an innovation for the broader insurance sector in Haiti, which has the lowest insurance penetration rate in the region to date*."[138]

While these projects frequently target co-benefits – simultaneously addressing climate change concerns and contributing to more traditional development or humanitarian goals – they often lack a direct focus on conflict prevention and resolution. Nevertheless, more integrated programming attempts do exist and are good examples of how international actors can use climate change as an entry point to achieve broader peacebuilding objectives. For example, Mercy Corps worked on a project that aimed to bring two communities in Port-au-Prince – one located uphill and the other located downhill – together to identify challenges (e.g. rubbish from the uphill community would be washed downhill, during periods of heavy rain, polluting the water sources of and causing adverse health effects in the downhill community), and joint solutions that would benefit from conflict resolution and climate change adaptation perspectives.[139]

Climate finance is reaching Haiti, but to date it has not been directed towards adaptation nor towards addressing the security implications of climate change. Haiti has been a climate finance beneficiary. In 2019, Haiti received USD 773 million (no data are available for 2021)[140] in climate financing from the Global Environment Facility (GEF),[141] the GCF,[142] Climate Investment Funds (CIF)[143] and the Climate Adaptation Fund.[144] Generally, climate finance has largely been spent on mitigation and readiness activities, as well as for providing institution and capacity building to those ministries implicated in climate action. Support has also gone to regional projects focusing on addressing climate risks in the Caribbean, with Haiti being one of the target countries (GCF 2021). Substantially less funding, however, has gone towards addressing the actual impacts of climate change on livelihoods and other dimensions of security. Moreover, the challenges posed by Haiti's political and social instability have undermined public appetite for international climate and other finance interventions

[137] Key expert interview with UN agency focused on sustainable development and governance, 10.02.2023.

[138] Key expert interview with UN agency focused on food security, 1.02.2023.

[139] Key expert interview with INGO, 24.04.2023.

[140] Between 2010 and 2015, overseas aid on climate change totalled USD 162 million (OECD 2022a).

[141] The GEF has eight projects in Haiti, totalling USD 35 million. In addition, the GEF has three projects funded by its Least-Developed Countries Fund (LDCF), which total USD 16 million. In 2022, the LDCF funded a USD 4.5 million project in Haiti's southeast to strengthen the climate resilience of the drinking water sector in Haiti. As a result, around 130,000 people should directly benefit from more reliable access to clean drinking water, and, in turn, improved health, livelihood and food security (LDCF 2022).

[142] The GCF has had six Haiti-specific projects, totalling USD 4.5 million. Among these, a 2021 project aims to "strengthen NDA capacity for greater leadership on climate change adaptation" (GCF 2021).

[143] To date, the CIF have approved six projects through its various initiatives in Haiti, totalling USD 65 million (CIF 2023).

[144] In 2022, the Adaptation Fund approved a UNESCO-led project in South Les Cayes, Grand'Anse (Jérémie) to enhance the Haitian education sector's adaptive capacity and resilience to disaster risk of natural hazards related to climate change (Adaptation Fund 2022).

(see chapter 4.5). The UN Secretary-General's Peacebuilding Fund (PBF) is the first investment mechanism that explicitly addresses climate security challenges in an integrated way. In 2023, for example, the PBF approved a joint project between UNEP and the International Labour Organisation (ILO) aimed at creating favourable conditions for the stabilisation and social emancipation of young people in rural and urban areas through community action planning and conflict resolution, agroecology, the creation of green jobs, and the diversification of income sources, thereby improving resilience to climatic hazards, and promoting peace and social cohesion within their communities.[145]

While the engagement of international agencies and organisations is essential for sustaining climate action in Haiti, it does not come without challenges and potential drawbacks. For one, it places Haitians at the behest of international partners, whose interests may not be aligned.[146] Haiti's climate budget is a mashup of donor priorities, which easily results in overfunding certain initiatives while underfunding other critical needs. For example, 70 per cent of Haiti's USD 1.1 billion climate budget was allocated for improving the sustainability of energy production in Haiti in 2019. Meanwhile, other critical areas, such as deforestation, environmental degradation and conservation, have remained underfunded (Perry 2019; Gallagher et al. 2019). Furthermore, there are concerns that the influx of international funds reduces the pressure on the government to meaningfully release funds for public services – a concern that could well extend to climate action (World Bank 2022; NYT 2022). This, in turn, can further erode the absorptive capacity of national and local institutions, creating a cycle of dependency. Lastly, the fact that international organisations may ultimately be the penholder of strategies or lead in activities with little input or direction from Haitian institutions or actors themselves, raises questions over the ownership of climate action. This risks perpetuating problematic patterns of assistance that have plagued international responses in Haiti for decades (see chapters 4.1 and 4.5).[147]

International aid assistance in Haiti has been and continues to be mired in process challenges. These challenges undermine the goals aid assistance seeks to achieve, and can even cement harmful dynamics that erode resilience and compound insecurity. Traditionally, this has occurred in relation to development and humanitarian interventions, but also has implications for programming around climate change and climate security. For example, food aid in response to disaster events throughout Haiti's history, which has largely relied on imported food, has undermined local producers and shifted market incentives. The resulting over-reliance on imported food persists to today.[148] Dependency on international aid is an important theme in Haiti, with concerns that interventions tend to be short term and unsustainable, temporarily alleviating but not addressing the root causes of the problems. As a staffer for an INGO noted, "*every time there is a natural disaster, INGOs will appear with more resources and funding, but then they leave, at least until the next disaster strikes; in-between disasters nobody stays to invest in building the required capacities for Haitian institutions to cope with disasters by themselves. They address the* abse sou klou *('blister on an open wound') but not the wound itself*."[149] *"Short-termism is ok after a natural disaster in the form of humanitarian aid, but not for long-term development*."[150]

[145] The PBF in Haiti has also supported a conflict resolution and social cohesion initiative that promotes youth organisations in the city of Jérémie in the Grand'Anse Department. Implemented by UNDP, IOM, UN Women and MINUJUSTH, the initiative focuses on reinforcing young people's capacities, fostering their active and equal participation in public affairs, and raising awareness with local authorities and local communities to decrease violence, including GBV (UN Peacebuilding 2020).

[146] Key expert interview with independent consultant with expertise in food security, 7.02.2023.

[147] Key expert interview with Haitian human rights activist, 14.04.2023.

[148] Key expert interview with INGO, 1.03.2023. See also: Wisner 2022.

[149] FGDs in BonBon, Grand'Anse, 12.04.2023.

[150] Key expert interview with representative of INGO, 1.03.2023.

Correcting current issues with international aid processes is an important step to address climate-related challenges, as the type of actions that are needed "*cannot be done in a year or two*."[151] Stories of responses that miss their intended beneficiaries, while those that receive aid may not be "the most vulnerable" and in need are common.[152] Local community members that were consulted for this report noted that this is due to the fact that the lists of beneficiaries are drafted by the international organisations themselves, which do not always have a full understanding of those that may be most in need. "*Aid is distributed according to the same lists of beneficiaries drawn from previous surveys, without reflecting the important changes that have happened within the community*."[153] There is also the risk that, when community members (e.g. community leaders) are in charge of drawing the lists, they sometimes include the names of relatives or friends rather than those most in need. This can lead to tensions within communities.[154] Aid distribution may also not consider dynamics which favour some groups at the expense of others. For example, during aid distribution, many women prefer to stay at home as the atmosphere can feel unsafe, "*it often resembles looting*." During aid distribution, the risk of being robbed once they have received aid, or even sexually exploited or abused, increases significantly.[155] Consequently, men are more likely to be the recipients of aid, with women often dependent on others to access aid.

Another problem is that the aid provided is not always fit for purpose. "*After the 2021 earthquake, international organisations came to provide tarps*[156]*, but at that point nobody had anything to cover with a tarp*."[157] A lack of awareness of needs on the ground may not be intentional but the implications are significant, especially when working in highly volatile environments such as Haiti. Lastly, although international actors have made progress over the past five years with respect to improved coordination across a number of sectors (disaster risk management, education, healthcare and water), coordination remains sub-optimal, resulting in fragmentation, a lack of sustainability, and insufficient focus on and investment in core priorities (World Bank 2022). Recently, there have been some noticeable – and welcome – shifts in the approach of international donors and implementers to assistance, which have proved beneficial for climate resilience and could ultimately be key to addressing climate insecurity. These include engaging local producers in the provision of food aid and assistance programmes (French Diplomacy 2021), and improving efforts to partner with Haitian groups and "*make a shift towards allowing communities to take charge*" (Robillard and Hsu 2023). There have been important moves between humanitarian and development agencies to improve coordination and delivery.[158] For example, in the South Department, UNEP is piloting a resilient landscape multidimensional approach, which consists of establishing several pilot multi-stakeholder platforms at different levels (from communes to departmental) to enhance dialogue, coordination and decision-making over landscape planning. Importantly, these platforms will integrate the experience of development partners. The aim of the platforms is to develop a comprehensive and harmonised methodology for land use and landscape planning, which integrates nature-based solutions (NBS) and resilience dimensions, and can be replicated across and beyond the pilot areas.[159]

[151] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

[152] FGDs in Leon, Grand'Anse, 15.04.2023.

[153] FGDs in Gommier, Grand'Anse, 13.04.2023.

[154] FGDs in Gommier, Grand'Anse, 13.04.2023.

[155] FGDs in Gommier, Grand'Anse, 13.04.2023.

[156] A type of emergency shelter.

[157] Key expert interview with independent consultant with expertise in food security, 7.02.2023.

[158] Key expert interview with INGO, 23.02.2023.

[159] Communication with UNEP representative, 07.07.2023.

Local responses

Ordinary Haitians are themselves at the front line of responding to the impacts of climate change. Typically, the first responders to a disaster are not foreign NGOs, but neighbours, family, friends, fellow churchgoers and grassroots organisations (Robillard and Hsu 2023). "*When a disaster like a flood happens and families lose their homes, they just ask their friends, family or neighbours for hospitality*."[160] For example, in the immediate aftermath of Hurricane Matthew in 2016, the humanitarian response was found to be exclusively locally led (Robillard et al. 2020; Robillard and Hsu 2023). When Cité Soleil has been flooded, it is the inhabitants of the neighbourhood themselves who "*get their picks and shovels to clean up the affected areas, and we share the little food we have*," as one interviewee reported.[161] Similarly, farmers are adapting as best they can to the current drought affecting most of the country, as "*no substantial assistance has been received from public or private institutions, to date*."[162] Diversifying their revenue sources with fishing and charcoal production has been a key way for them to overcome climate-related losses. In the municipality of Aquin and Puits Salés, for example, farmers said that "*the availability of bayahonde in the area is a considerable asset that can be used to make charcoal, which is in great demand both locally and nationally, thus easing our situation. Fishing also helps because, in addition to the money it brings in, it increases protein consumption at all levels, thereby also reducing the prevalence of chronic malnutrition*."[163,164] Other individual strategies for coping with the effects of climate change have included starting small business activities, purchasing with credit or borrowing money, often at high interest rates, or relying more on remittances from family members and mutual solidarity within communities (Fuys et al. 2021).[165]

"Good neighbourly relations, and even mutual aid, are an important way within the community to resist the pressures exerted by the drought on food supplies." - FGDs in Baleine and Fonds des Blancs, interviewed for this study.

In the face of the ongoing drought that has affected most of the country, local responses have focused on finding methods for agricultural adaptation. For instance, farmers have tried to spread their risks by cultivating gardens (*jardin creole)*[166] in different sites and practiced diversified crop production using a mixture of long-cycle and short-cycle crops (Singh et al. 2016). Another traditional cropping system, known as *bann manjé* (or "band of food") has regained popularity due to the significant economic and environmental benefits it offers.[167] Moreover, farmers are shifting their production to respond to changes in the rainy seasons. For example, bean and coffee cultivation have been moved to mountainous areas and replaced with pigeon peas, which are more adaptable to heat conditions, in the lowlands.[168] In the Northeast Department, local communities worked together to develop solutions to the disappearance of citrus cultivations caused by parasites (attributable to higher

[160] FGDs in Limonade, North, 13.07.2023.

[161] FGDs in Cité Soleil, Port-au-Prince, 29–30.06.2023.

[162] FGDs in Trou de Nippes, Nippes, 4.06.2023.

[163] The *Bayahonde* is a shrub or small tree in the family *Fabaceae*, a kind of mesquite. It is native to Mexico, South America and the Caribbean. It has become established as an invasive weed in Africa, Asia, Australia and elsewhere.

[164] FGDs in Puits Salés and Aquin, South, 25.05.2023.

[165] In urban areas, additional coping strategies mentioned by participants in the FGDs include selling mobile phones, radios and other valuable objects to obtain cash, or even gambling. Source: FGDs in Cité Soleil, Port-au-Prince, 29–30.06.2023.

[166] The Creole garden (*jardin creole* in French or *jaden lakou* in Kreyol) in Haiti is a multi-use agroforestry system intended for the production of fruit and vegetables. Creole gardens typically comprise a diverse range of plant species, forming several vegetation layers, from herbaceous plants to trees. They are primarily based on coffee, banana, breadfruit and cocoa. Studies have confirmed that Creole gardens can host a very large number of usable species, and thereby play a central role in food self-sufficiency and the self-supply of non-food products such as fuelwood (Jean-Denis et al. 2014).

[167] The *bann manjé* system consists of planting perennial food crops (e.g. plantains, sugar cane, cassava, pigeon peas and pineapple) in combination with annual crops (e.g. sweet potato and yams) in a system of contour hedgerows and alleyways. The perennial plants help reduce erosion through their root systems, while simultaneously providing leafy material as a soil amendment in the alleys between hedgerows. The system allows farmers to earn on locally generated staple foods and livestock fodder, as well as excess produce sold at the market (Murray and Bannister 2004).

[168] Key expert interview with Haitian academic specialised in agronomy, 1.04.2023.

temperatures and hence climate change).[169] Women's organisations have also been very active in conducting trainings for local communities to plant climate-resilient crops in their own yards.[170]

Associations and other types of networks have been key to helping people respond to climate-induced challenges, and the interactions between climate change and other drivers of insecurity (see chapter 4.3). For example, farmers' associations have proliferated especially after the 2010 earthquake, and function as non-profit organisations in Haiti (and are registered as such with the Government of Haiti), depending on donor support to meet their membership goals. In the face of the current difficulties farmers face in accessing markets in Port-au-Prince, including gas shortages and gang violence on the main roads, they have played a critical role in supporting farmers find new trade routes, including by boat and land.[171] Local associations in Haiti are generally very important, as they allow people, including the most marginalised, to voice their concerns and needs, and increase their chances of being heard. As a case in point, several associations representing people with disabilities, including women with disabilities, have formed in recent years; these are still very local initiatives, but they have been successful in lobbying authorities to ensure that people with disabilities receive the support they need in times of disasters.[172]

Haitian CBOs and CSOs have only recently started addressing climate change. Their engagement in this space has largely focused on encouraging agroecological farming strategies. Among these, the Haitian NGO Partenariat pour le Developpement Local (PDL) has been working in Northern Haiti to support the adoption of agroecological practices as a resilience building and income diversification strategy since 2009.[173] Agroforestry has also been at the heart of Haitian-led reforestation efforts. For example, Action pour la Reforestation et la Defense de l'Environnement, a non-governmental, non-profit CBO in the Northeast Department, has encouraged the planting of *benzoliv* (moringa), which grows quickly and is highly nutritious. Simultaneously, it has conducted awareness raising to help farmers understand the impacts of climate change on their lives and work, and discuss the changes they need to implement to adapt (e.g. in terms of the crops they cultivate or how they construct their houses).[174] Some of this work has included a social component, combining environmental and biodiversity protection with interventions aimed at addressing social exclusion and poverty.[175]

More generally, reforestation projects have been quite popular in Haiti over the last decade. Local NGOs have been particularly active on this, for example, leading on the replanting of five million trees in deforested areas in the north of the country under a USD 39 million USAID programme (Lo 2022).[176] Women have led many of these efforts. Mangrove reforestation has been another key focus area for Haitians and Haitian organisations. FoProBim, for example, has worked for more than 30 years on educating fishers, coastal residents and schoolchildren about the value of mangroves, clearing trash from swamps and planting seeds to fill gaps where mangroves have died or been cut down, and has implemented alternative income projects (e.g. beekeeping) to reduce their cutting (Fox 2022). Local communities, in collaboration with UNEP and the MDE, have been instrumental in protecting and planting mangroves in the marine-protected areas of the south of Haiti, and in developing green and blue economy initiatives as alternative livelihoods.[177]

[169] Key expert interview with Haitian human rights activist, 14.04.2023.

[170] Key expert interview with independent consultant with expertise in food security, 7.02.2023.

[171] Key expert interview with independent consultant with expertise in food security, 7.02.2023.

[172] Key expert interview with INGO, 23.02.2023.

[173] Importantly, PDL's work builds on existing farmer knowledge and practices (e.g. on qualities of local crop varieties, diversification and seed saving), while also fostering farmer-to-farmer learning and changes to existing farming practices (e.g. stopping the conventional practice of "slash and burn" and introducing soil conservation).

[174] Key expert interview with Haitian social and environmental activist, 30.03.2023.

[175] Key expert interview with Haitian social and environmental activist, 30.03.2023.

[176] However, the sustainability of environmental and social benefits of the programme has been put in doubt by the short project timeline, and lack of resources among farmers to sustain these techniques (Lo 2022).

[177] Communication with UNEP representative, 07.07.2023.

Diversifying livelihoods has emerged as a common response to climate change impacts, both in the context of the current drought and in the aftermath of disasters such as Hurricane Matthew. Haitians have turned to fishery to cover their protein needs while generating a bit of extra income during periods of famine.[178] More recently, investments in the aquaculture sector aimed at improving food security and employment opportunities have increased. A notable example is AQUADEV, a Haitian association that has collaborated with fishing communities in the Grand'Anse Department to strengthen their resilience by raising awareness about the need to protect coastal and mangrove ecosystems, and building capacity in aquaculture and seafood conservation.[179] Many Haitian smallholders have, for years, invested their limited resources in producing wood fuel, especially charcoal., with smallholders integrating tree cultivation into their agricultural systems to sell the wood to middle-men (entrepreneurs that produce and sell charcoal).

EWS and coping mechanisms to respond to disasters have been developed at the local level. Municipal Civil Protection Committees (Comités Communaux de Protection Civile, CCPCs), a part of the National Disaster Risk Management System (Système National de Gestion des Risques et des Désastres, SNGRD),[180] play an especially crucial role. As they are the closest to the population, CCPCs can send people door-to-door to explain the EWSs, communicate warnings and organise the evacuation of communities when a disaster is imminent (World Bank 2020). CCPCs' capacities have significantly improved over the last five to 10 years and local communities appear to be quite satisfied with the service provided. "*Civil protection is very present within our community and early warning mechanisms function well*."[181] However, as CCPCs are composed of volunteers from the community, their operability is susceptible to high volunteer turnover, particularly as CCPC volunteers are not entitled to benefits, insurance or reimbursement for expenses (World Bank 2020).

Key challenges with communication and inclusion, however, inhibit the effectiveness of EWS. Radio, SMS, megaphones, door-to-door visits (especially in high-risk areas) and announcements in public spaces are typical ways in which EWS messages are passed on to the community. This was also said to be functioning well. "*The alert systems work; every time we expect an extreme weather event we are informed by phone or messages are diffused through megaphones*."[182] "*Social media have also made it much easier to access information on impending catastrophes*."[183] However, more remote (and more vulnerable) rural regions are less likely to receive accurate or timely messages.[184] Communication methods can fail to ensure inclusivity. For example, communication methods do not account for sensory impairments. Consequently, people with disabilities may be dependent on others in their household or neighbourhood for essential information.[185] Once a disaster hits, there is little available for people in terms of shelter and immediate humanitarian assistance – people typically gather in schools or churches, which may not be fit for the purpose. For example, many of these temporary shelters are inaccessible to people with disabilities and lack basic services, such as running water or sanitation facilities.[186]

[178] FGDs in BonBon, Grand'Anse, 12.04.2023.

[179] Key expert interview with Haitian NGO focusing on fisheries, 17.03.2023.

[180] CCPCs are part of the Departmental Civil Protection Committees (Comités Départementaux de Protection Civile, CDPC) and work across all stages of SNGRD (preparedness, response and recovery). There is one CCPC per municipality, with a total 140 CCPCs and 3,100 CCPC volunteers. Once a year, CCPC volunteers receive standardised training from the CDPC on how to perform their duties. Beyond the annual training, CCPCs are active in their municipality all year round, organising simulation exercises, conducting information campaigns for the community on preparedness-related aspects, and preparing and updating the municipal contingency plans to support the municipality (World Bank 2020).

[181] FGDs in BonBon, Grand'Anse, 12.04.2023.

[182] FGDs in BonBon, Grand'Anse, 12.04.2023.

[183] FGDs in Puits Salés and Aquin, South, 25.05.2023.

[184] A 2020 World Bank study identified five main obstacles and related barriers that limit people from receiving early warning messages and hence evacuate on time. These include limited resources and funding at all levels of the disaster management system, lack of standardisation of how EWS information is transmitted, inexperienced messengers, unclear messaging, and distrust in the messenger (World Bank 2020).

[185] Key expert interview with INGO, 23.02.2023.

[186] Key expert interview with INGO, 23.02.2023.

Local responses have been key to addressing the lack of basic services in both rural and urban areas, which – when exacerbated by the impacts of climate change – can trigger conflicts between and within communities. Haitian households have typically adopted rainwater harvesting, for example, to ensure they have access to water for domestic purposes. In rural areas, water committees have been set up – often led by women – to protect water sources.[187] The ecological sanitation toilets and waste treatment services (EkoLakay) provided by Sustainable Organic Integrated Livelihoods (SOIL) to over 1,100 households in Cap Haitien represent a particularly innovative method to address the vast unmet demand for improved sanitation in Haiti, particularly in urban and peri-urban areas. The compost produced by EkoLakay is used to support agriculture and reforestation efforts in Haiti, thereby enhancing resilience and climate adaptation by promoting plant growth, stabilising soils, and reducing the impact of flooding and drought.[188] Similar to rainwater collection, Haiti has the potential to harvest water from fog, as based on Haiti's climate conditions and the few fog collection assessments that have been carried out for Caribbean Islands (Farnum 2022; UNEP-DHI 2017; Schemenauer et al. 2001). As early as 2001, FogQuest and Oxfam Quebec launched a fog harvesting project in the Salagnac Plateau in southwestern Haiti to address seasonal water shortages. According to their evaluation, the best performing fog collectors were productive, with each 1 m² of mesh producing about 165 litres of water per month. However, due to concerns about staff safety, this project was forced to stop (ForQuest 2009; Schemenauer et al. 2002). Despite its potential in Haiti, very little recent research or few interventions have focused on innovative ways of harvesting water.

"My father always said that the soil is the captain of a nation – when you lose it, you lose your nation," Jane Wynne, a local soil conservation pioneer, interviewed for this study.

Community responses to climate and environmental risks in Haiti have not directly integrated a social lens, for example, by simultaneously including social cohesion, conflict prevention and achieving peacebuilding objectives (though good practices exist, see box 12). For example, there has been little support for local/community-based conflict resolution mechanisms, which are key to addressing conflicts arising from the impacts of climate change or environmental degradation. Normally, local conflicts are solved through community discussions in the context of the CASEC, or brought to the attention of church or community leaders that try to find amicable solutions to them. Rarely are these conflicts escalated to judicial authorities. "*It is preferable to address these minor conflicts within the community in a friendly way using our institutions; we are like a big family*."[189] Some local NGOs link conflict management to environmental protection. For example, FoProBim deploys environmental protection officers who also play a key role in preventing and resolving local conflicts around natural resources. A critical part of their role is often negotiation and conflict mediation (see box 12).[190] Yet, these mechanisms have received little attention or support, nor have they been linked to interventions that address climate change impacts and environmental degradation, despite many conflicts involving water resources, land and livestock.

In urban areas, locally led interventions have focused on violence reduction and conflict prevention but few include environmental or climatic elements. Much of the work in urban areas in Haiti has targeted young people given their heightened vulnerability to gang recruitment and violence. The Cultural Society of Haitian Youth (SOKIJA), for instance, has developed a set of activities to help young people understand the importance of Haitian culture and its use towards improving living conditions and society in general.[191] *Depase Fwontyè yo* ("Beyond Borders") is another example of a local

[187] Key expert interview with independent consultant with expertise in food security, 7.02.2023.

[188] Key expert interview with Haitian NGO focused on sanitation, 21.03.2023.

[189] FGDs in BonBon, Grand'Anse, 12.04.2023.

[190] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

[191] Key expert interview with Haitian youth association, virtual, 20.03.2023.

organisation working towards overcoming poverty and preventing violence in vulnerable areas of Port-au-Prince and Jacmel by training young people, with a focus on children that have experienced servitude, to become grassroots leaders (Beyond Borders 2023). Similarly, Lakou Lapè's work focuses on engaging individuals and communities from difficult neighbourhoods in Port-au-Prince through workshops and trainings on conflict transformation (Lakou Lapè 2023). Women-led organisations have been especially active in this area (IJDH 2022). Only a few of these interventions, however, have made the linkage to climate change adaptation and overall environmental protection, reflecting the fact that climate and environmental drivers of the current crisis situation are not necessarily understood.

Environmental protection and conservation are most effective when locally owned and tied into livelihoods, such as ecotourism, agroecology and ecosystem services. However, with consecutive crises hitting Haiti, the tourism sector – and certainly ecotourism – remains poorly developed. With the volatile socioeconomic situation in Haiti, environmental organisations struggle to recruit volunteers for conservation and protection efforts. One marine biologist interviewed for this study explained that the vast majority of people involved in environmental protection are paid, otherwise they would not engage in this line of work.[192] Despite these challenges, conservation can be effective with suitable incentives and local ownership, especially when they are tied to livelihoods. For example, local communities have collaborated closely on the protection and restoration of some marine areas to enable sustainable profit from ecosystem services (Wiener 2013).

Box 12: Mitigating tensions between Haitian and Dominican fishers in marine border areas

Climate change and poor management of coastal and marine resources led to widespread depletion of fish stocks along the Haitian coast. Faced with dwindling livelihoods, fishers in Haiti's north-eastern region increasingly started to look elsewhere for catch, across the border into neighbouring Dominican Republic. Grievances quickly mounted as Haitian fishers competed with Dominican fishers over access to and control over marine resources, with these grievances at risk of escalating into conflicts. With fishing policies unclear or not implemented, and local law enforcement lacking the capacity to intervene, there was a need for dialogue to ease tensions and prevent escalation.

In this context, in March 2022, at the mouth of the Massacre River – also known as the Dajabon River – two environmental organisations, FoProBim and AgroFrontera, representing respectively the Haitian and Dominican sides, set up a meeting to bring together environmental officers, fishers and their associations from both countries, with the aim to facilitate dialogue. The discussion on the mangrove beach was not only focused on airing grievances and concerns, but also on finding workable solutions. The role of both environmental organisations as peacebuilders here was key, and out of the meeting came several significant results, including a shared understanding of the exact location of the border, as well as proposals to introduce a boat registration system and fishing licenses to facilitate monitoring and surveillance.[193]

According to FoProBim, given authorities' limited capacities, providing a platform for dialogue with incentives to collaborate is a critical first step to avoid competition over natural resources escalating into violent conflict. One environmental peacebuilder working in northern Haiti shared how difficult it is to ease tensions over natural resources, "*In Haiti there is a saying that you cannot impede someone from feeding his or her family. The art is to convince this person that harming others eventually also affects their family. But you need to give them a better alternative. The best conflict prevention tool is an economic incentive*".[194]

[192] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

[193] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023. See also: Daniel and Luxama (2022).

[194] Key expert interview with Haitian NGO working to protect coastal and marine environments, 13.04.2023.

Box 13: The story of Jane Wynne, a local soil conservation pioneer

Jane Wynne's farm sits at about 6,000 feet high, in the southern part of the Port-Au-Prince arrondissement. The Wynne Farm Ecological Reserve serves as both a working farm and an innovative project dedicated to educating farmers about sustainable practices. Guided by her principle "*Save soil – save life – save biodiversity*," Jane talks passionately about the diverse farming techniques she teaches to effectively conserve soil. Her strategies include the construction of canals to retain water on the hillside, the use of mulch or straw to prevent rainwater runoff, and the strategic positioning of trees in retaining soil health and to protect against the effects of hurricanes.

The local farm project started in 1956, when her father decided to purchase pieces of land higher up in order to protect the land. His decision stemmed from observing the erosion of red soil into Carrefour, where the family used to live. "*My father always said that the soil is the captain of a nation – when you lose it, you lose your nation*," Jane recollects. The widespread depletion of topsoil poses significant challenges to farmers, hindering their capacity to sustain food production. Without fertile soil, food security is jeopardised, leading to reliance on external food sources and exacerbating water scarcity.

As the head of the Ecological Reserve, Jane embraces her role as an educator on alternative methods of soil conservation. She recognises that a lot needs to be done. Many farmers still mistakenly perceive the gradual disappearance of soil as a sign of the growth and proliferation of rocks. Undeterred by the challenge, Jane remains resolute in her hopes, believing that eventually "*every farmer should take a course at the university*."

Figure 11. Mangrove restoration in Haiti © FoProBiM

What's next? Recommendations

Climate security challenges have no quick fixes. They require substantial investment in climate change mitigation (to prevent existing challenges from getting worse) and adaptation (to help people respond to and recover from climate stresses and shocks), as well as measures to address poor governance, weak social cohesion and human rights violations. These efforts need to happen simultaneously. Climate change adaptation cannot be achieved without addressing the drivers of conflict and instability, and long-term security and good governance cannot be achieved if people's livelihoods are put at risk by the impacts of climate change.

Experience from crisis-affected contexts has shown that addressing climate change, and environmental and natural resource issues can create the space for bottom-up peacebuilding and locally owned initiatives, which are vital for conflict transformation. Experience has also shown that natural resource management and localised climate adaptation can be successfully used as an entry point to better integrate women, young people and other marginalised groups in local governance and decision-making. Furthermore, experience has shown that this type of work can be successful, especially in crisis-affected and fragile contexts, given the right strategy and the involvement of the right actors.

Although a lot of effort has already been put in to reverse Haiti's cycles of spiralling crises, these efforts have largely failed. The current situation is unbearable for Haitians. As such, it is indisputable that "something" needs to be done – but what that "something" should be and who should be in the driver's seat is far from clear or agreed upon. Without a completely fresh approach to tackling the impacts of climate and environmental challenges on the country and its people, Haiti is doomed to spiral further into chaos, with current dynamics of exclusion, poverty and desperation tragically deteriorating.

This report draws upon evidence collected from interviews with experts, practitioners and researchers, as well as discussions with Haitians themselves, who have witnessed first-hand the direct and dramatic effects of these dynamics on their own lives. The report advocates for a new and inclusive climate security approach to address Haiti's complex and multidimensional crisis.

The recommended approach should consist of four pillars:

1. Building a high-level vision through multi-sectoral dialogue,
2. Decentralising responses and empowering local communities,
3. Rebuilding the link between Haitians and their natural environment,
4. Increasing and targeting funding to address climate security challenges.

Implementing the action areas recommended by this approach will require the joint efforts of the Haitian government, international donors and implementing organisations, as well as Haitian CSOs, CBOs, research institutes and universities – all according to their respective fields of work, skills and mandates.

Building a high-level vision through multi-sectoral dialogue

As this study shows, the restoration of political stability and security in Haiti, as well as of those policies and strategies that are needed to kick-start the country's economic growth, are directly linked to the state of the natural environment and the impacts of climate change. Sustainable development, and long-term peace and stability cannot be achieved without adequate strategies in place to ensure that natural hazards and climate change do not result in disastrous events that destroy lives and infrastructure across the country. Similarly, the problem of gang violence in Port-au-Prince (and elsewhere in the country) cannot be addressed without ensuring that people in both rural and urban areas – and especially young people – have access to climate-resilient and sustainable jobs and sources of income. Therefore, a focus on climate security and the preservation of the environment must be at the centre of all economic, political and social decisions driving the country forwards. This will require a fundamental shift in paradigm.

Indeed, a high-level political vision that sets out the priorities to address the linkages between climate and security (in all its dimensions) in the country is needed. The strategy should be accompanied by a plan for allocating resources over the next 10–15 years. In particular, the strategy should prioritise environmental and climate concerns, as well as the broader social and economic needs of rural and urban communities in Haiti, while simultaneously restoring trust and cooperation between the public and the state. Critically, the design and implementation of such a strategy should reflect the needs and priorities of Haitians throughout the country, and include the needs of all segments of Haitian society (e.g. civil society and grassroots organisations, political parties, associations, businesses, and universities). The strategy should build on existing plans, especially the most recent NAP, and specify how priority areas should be operationalised in order to resolve conflicts and build social cohesion, in addition to addressing the impacts of climate change on key sectors of the economy.

Importantly, to kick-start such an effort, a government that can offer political stability, is representative of the Haitian population and has the public's interests at heart is needed. It is not in the scope of this report to say what political process should be followed to achieve this outcome. However, it is clear that without re-establishing security and the rule of law, it will be difficult to advance climate and peacebuilding objectives in Haiti.

Cross-sectoral collaboration will be essential. Addressing the complex and multidimensional linkages between climate and (human) security is not just the responsibility of the MDE, but needs integrated programmes and action across ministries and sectors, including agriculture, water, business and industry, trade, defence and security, and justice. The MEF has a key role to play in ensuring that adequate resources are made available and allocated to fund these efforts at national and local levels.

International support for governmental efforts in this space will be important. For example, international partners should provide advice on the integration of conflict and climate sensitivity across sectors (based on international experiences), and funding for programmes and projects within this strategy that specifically combine peacebuilding and climate action.

Finally, regional platforms such as CARICOM could present an opportunity for the Haitian government and other stakeholders to share knowledge and best practices on how to address the impacts of climate change on various dimensions of security with other small-island developing states (SIDS) in the Caribbean and elsewhere that face similar challenges.

A high-level climate security strategy should focus on the following areas:

1. **Prioritising environmental protection and climate change adaptation**, ensuring that a rigorous understanding of environmental degradation and climate change impacts is available and informs all key policymaking processes and strategies. To this end, the Haitian government

– with international support, and in collaboration with Haitian universities and research centres – should consider establishing a climate change observatory, which would function as a repository of climate and environmental data and trends, and provide analysis of climate change impacts on key dimensions of security. In addition to addressing existing issues with data sharing across organisations at different levels, such an observatory could play an important role in providing a platform for exchange, coordinating action, supporting local and community-based efforts, as well as communicating information about climate change and environmental issues to the Haitian public.

2. **Promoting economic development, infrastructure and livelihood options in rural and urban areas**. This should include a focus on creating green jobs, and providing education and training opportunities, especially for young people, as well as targeting other under-represented groups in society (e.g. women and people with disabilities). Investing in climate-resilient infrastructure and nature-based solutions will be key to improving access to essential services and goods (e.g. road infrastructure, clean water, sanitation, renewable energy and digital development), and ultimately sustainable growth.

3. **Promoting agricultural transformation towards sustainable and climate-resilient agriculture** in rural areas. This should provide an enabling environment for public and private investment into the technologies, and foster the practices that improve land productivity, including soil conservation, water harvesting, system irrigation, agroforestry and land-use management.

4. **Reinforcing the system for responding to and managing disasters**. Focus should be placed on strengthening early warning mechanisms and making action more inclusive, with a view to reducing human and economic losses.

5. **Promoting measures to improve governance systems**, and rebuild trust and legitimacy between authorities and communities. This should include establishing an action plan to strengthen state authority and public services in rural areas, combating corruption across all activities linked to the drivers of environmental degradation, natural resource management, and the utilisation and distribution of international aid.

Decentralising responses and empowering local communities

Any response to Haiti's multiple crises needs to come from Haitians themselves, who are already used to relying on their own ingenuity as well as mutual support systems to address climate, environmental and other challenges. Without harnessing local structures and responding to local needs, it is highly unlikely that any crisis will ever be resolved. Local solutions will be more sustainable over the long term, as they tap into existing social and cultural structures, as well as Haitian innovation and priorities. As such, Haitians need to be sincerely listened to, and local initiatives resourced and scaled up.

This should be a priority especially for international donors and implementers who have been and will likely continue to be, at least in the short to medium term, key providers of humanitarian and development aid in Haiti. International interventions should consider integrated approaches to address climate security challenges, considering intersecting needs and vulnerabilities with a long-term perspective. This can only be done by working with Haitians themselves. However, international interventions need to be undertaken with care, ensuring that Haitians are approached as rights holders (rather than passive recipients of charity), and that all programmes embed clear recourse and accountability mechanisms.

In this context, focus should be placed on:

1. **Enhancing the capacity of local leadership and structures at departmental and municipal levels** to ensure that they have the human and financial resources to adopt integrated approaches for economic development that simultaneously contribute to climate resilience and security. Both the national government and international partners have a key role to play in this sense, the former by transferring adequate resources from the state budget to the local level, and the latter through funding and capacity building. Local leadership and structures in crisis-affected communities should be targeted. Equally, it will be important to ensure that policymaking at the national level takes into account local needs and priorities, so that climate and environmental policies are better adapted to the realities on the ground.

2. **Increasing investment in localised development projects and programmes**. International funding should directly target local partners, and implementing organisations should prioritise working with and through local partners. This will require promoting engagement and dialogue with local actors (beyond just local authorities and certain civil society actors), and establishing equitable partnerships in project design, implementation and follow-up. More resources should be directed to grassroots women and youth organisations, as well as those working with vulnerable and marginalised groups (e.g. people with disabilities and LGBTQI+ individuals), and in crisis-affected communities to ensure that their voices are also included in responses to climate security challenges. In some cases, this will require complementary interventions aimed at capacity building (e.g. on project management and computer skills), as well as the provision of equipment and appropriate follow-up mechanisms to ensure that the resources are used effectively.

3. **Supporting local communities to organise themselves** to implement climate adaptation and environmental protection measures. To this end, international as well as government-sponsored programmes should be directed towards building local capacities and providing adequate resources to implement initiatives, such as constructing rainwater collection structures, promoting agroecology interventions and adopting soil protection measures against drought. Farmers' associations have demonstrated their potential as significant change agents. For example, farmers' associations encourage agricultural modernisation and the adoption of more climate-resilient agricultural practices, and reinforce social cohesion mechanisms at the community level. Therefore, farmers' associations should be strengthened by government and/or international interventions through dedicated capacity building and training programmes. The participation of young people and women in farmers' associations should be strongly encouraged. Finally, support should be provided to community mediation and dispute resolution mechanisms, with a particular focus on disputes related to natural resources or other collective environmental challenges and conflict.

4. **Including women, young people and other marginalised groups in all responses** and throughout the response cycle (from design to implementation to monitoring and evaluation). This should include promoting communication between implementing organisations, and women's and youth organisations and networks. Moreover, participation in working groups and other forums where climate security action is discussed and planned should be promoted. The same holds true for other marginalised groups, including people with disabilities, building on the work that is already ongoing in terms of improving access to humanitarian aid in the aftermath of disasters caused by natural hazards. In some cases, ensuring the involvement of these groups may require deliberate outreach and facilitation, for example, to ensure women's participation (as women often have more household duties and hence less time than men to attend meetings).

Rebuilding the link between Haitians and their natural environment

Environmental degradation and the impacts of climate change are not the only causes of the many crises that the country faces. However, these factors undeniably contribute to them, and place lives and livelihoods at risk. As such, climate and environmental action in Haiti is a priority, and could serve as an entry point to tackle broader insecurity and violence dynamics. Rebuilding the connection between Haitians and their land should be at the centre of every effort to address climate security challenges in the country.

To address these challenges, it is important to build community-based responses to environmental management and sustainability. This would allow Haitians to set an agenda for action based on their own needs and priorities. It is crucial that a strong social component is included in these efforts to reduce the risk of violent conflict. Moreover, these initiatives should be designed and implemented inclusively and through active participation, aiming to address existing patterns of inequality in power and resource distribution that disproportionately affect the most vulnerable and marginalised groups. All responses should be guided by a comprehensive and inclusive conflict and political analysis, as well as a rigorous understanding of climate change impacts and their security implications.

NBSs have been recognised as effective ways of promoting resilience to and recovery from multiple crises, such as those affecting Haiti.

These could include:

1. **Investigating agroecological approaches**, such as forest fertilisation or biowaste composting, which have already been tried in Haiti, with a view to replicating and scaling them up. As these are typically practiced at a very local level, these approaches offer an entry point to address social cohesion. For example, approaches could be designed in a way that encourages families and communities to work together, and supports the formation of associations. Deliberate efforts should be made to build young people's technical capacities in and knowledge of agroecology and "ecopreneurship," with a focus on reintegrating young returnees. The potential of community-level micro-financing schemes (e.g. small loans, savings, insurance and other financial services) should be further researched. Opening up financing opportunities for agriculture would make the sector more attractive, especially to young people. This would reduce the pressure on young people to move to urban areas or abroad.

2. **Considering afforestation projects**, including natural regeneration and silviculture efforts, in addition to continuing and scaling up existing projects that aim to prevent deforestation. Adding climate-resilient trees that have economic potential (e.g. cedars and moringa) to agricultural plots could be another way for farmers to generate additional income, while contributing to afforestation objectives. Other recommended activities include training programmes and community awareness campaigns on reforestation and afforestation; investment in tree nurseries and tree planting; and training programmes on dryland conservation techniques and sustainable land use to prevent desertification. The potential for establishing carbon credits also deserves to be explored. As an alternative to wood harvesting and over-exploitation, the payment of credits for carbon offsetting could enable landowners to raise money to protect and regenerate forests.

3. **Expanding sustainable charcoal production practices**, particularly in agroecological zones where traditional crop productivity is declining. Research efforts should be dedicated to understanding the potential of sustainable charcoal production. This expansion should focus on adapting to local systems (e.g. utilizing existing stands of productive trees and woody shrubs that regenerate naturally) and investing in enhancing infrastructure to improve market

access (e.g. developing roads and establishing more charcoal markets in rural areas). Promoting organisational measures that increase the market position of smallholders can assist them in leveraging economies of scale. At the same time, these measures can contribute to restoring community bonds within and across the sector.

4. **Protecting marine resources** (e.g. corals and fisheries) through promoting sustainable fishing practices could enhance the viability, profitability, climate resilience and environmental friendliness of artisanal fisheries. Existing experiences show that these interventions can be successfully coupled with investment in alternative and supplementary livelihood sources. These sources include salt and honey production, which enhance fish processing and marketing, as well as small animal breeding and vegetable production (e.g. in jardins creoles). These activities enable families to earn extra income to complement their livelihoods.

5. **Creating green jobs through supporting initiatives that raise awareness**, build capacities and invest in small-scale businesses within the areas of the green economy and agroecology. For example, urban agriculture and horticulture activities offer significant potential for food and income generation, particularly for low-income and underemployed individuals, notably women and young people. Support for green jobs should be based on market analysis to ensure relevance and robust risk analyses to ensure suitable asset protection plans are developed (e.g. protecting assets against disasters). Small-scale businesses should be supported with training and educational opportunities (e.g. business and leadership skills training), especially for young people in marginalised urban areas, as well as psychological and mental health support.

6. **Promoting rural economies through the creation of green jobs to boost rural development**, and reduce demographic pressures on urban and coastal areas. Similarly, efforts to monitor and manage internal migration patterns and competition among livelihood groups should be enhanced to prevent and resolve conflicts around natural resources.

7. **Raising awareness of climate change adaptation and environmental protection among young people**. Awareness raising initiatives should use targeted language and appropriate communication methods (e.g. social media) to ensure that information is easily accessible, understood and appropriate. Developing a school curriculum on environmental awareness and engagement practices with nature, including historic forms of mutual aid (e.g. for agricultural production), would improve young people's relationship to the environment and address the stigma that is associated with working the land.

8. **Expanding and ensuring environmental conservation and protection**. The priority should be on existing national parks and protected areas, tying conservation and protection efforts with livelihoods and ecosystem services, and creating tangible incentives for people (especially those living in and around national parks and protected areas) to participate. In addition, the training and deployment of environmental protection officers would strengthen monitoring and accountability, as well as support natural resource management.

Increasing and targeting funding to address climate security challenges

Multilateral and bilateral donors have a key role to play in ensuring that climate security work in Haiti is undertaken to the extent and scale necessary to address the many challenges the country faces. The upcoming COP28 – the first ever COP to feature a thematic session dedicated to relief, recovery and peace – presents an important opportunity for international donors to re-evaluate climate finance, and ensure that climate financing effectively meets the needs of people living in fragile and conflict-affected states, such as Haiti. Haitians have endured decades of climate change-related impacts (despite contributing the least to them), which have had devastating repercussions on their livelihoods, food and water security, and health and physical security. The time has come for them to receive the resources required to reverse this trend, and construct for themselves a peaceful and sustainable country where they and future generations can prosper and flourish.

The current work of the PBF in Haiti is moving in exactly this direction, and provides an example of how peacebuilding and climate financing can be merged to address complex climate security challenges. The PBF's 2023 call for proposals focuses explicitly on promoting environmental peacebuilding approaches (which include climate-related as well as other environmental risks), and promotes female and youth participation. In Haiti, the PBF is expecting to fund a number of projects that address some of the climate security dynamics presented in this report (see chapter 4). These projects could serve as a "proof of concept" that other climate funds and donors could consider scaling up or replicating in different parts of the country and/or with a different thematic focus or target group. As this report shows, the needs are so great that there is space for everyone.

Figure 12. Kaskad Manman Dlo during rainy season © Foundation Seguin

More generally, the example set by the PBF in Haiti highlights the importance for international donors to:

1. **Start with greater intentionality in the design process,** for example, by requesting project proposals that target climate and peacebuilding benefits, and ensure that these are locally led. To this end, building strategic partnerships across the climate and peacebuilding donor landscape should be promoted by encouraging more conversations among climate donors to identify and integrate high potential projects earlier in the funding cycle.

2. **Make funding longer term and more flexible**. Environmental peacebuilding and strengthening climate resilience are slow processes that need multi-year commitments from donors. Similarly, donors need to support the inclusion of contingency funds or similar types of mechanisms in budgets. This would ensure that projects have the flexibility to respond to deteriorating security conditions and governance challenges, while preserving project gains. Flexibility is key in contexts characterised by complex and multidimensional challenges, such as Haiti.

3. **Make conflict-sensitivity central to the process** by including a broader understanding of the impacts of climate and non-climate induced conflict and security risks on climate action, and communicating the challenges and impacts of the projects to all stakeholders. This will also improve risk management.

4. **Invest in local research, knowledge sharing and capacity building**, as many gaps remain in terms of climate resilience and adaptation. Priority should be on supporting local think tanks and academic institutes.

5. **Enhance the diversity of stakeholders**, including peace and security actors, to facilitate shared learning and innovation. In turn, this will strengthen the definition of climate security priorities and the integration of these priorities into the country-level programmes of funders.

6. **Encourage more coordination between and within donors** to improve information and data sharing among organisations, and the effective allocation of funding. To this end, international organisations in Haiti could consider a joint development framework along the guidelines provided by the UN Sustainable Development Cooperation Framework to coordinate UN and other responses (e.g. from INGOs) to climate security challenges. This would enable organisations to leverage synergies, while combining their expertise and resources to amplify their overall impact.

Figure 13. “Growing rocks” in Seguin, Haiti, due to erosion © Foundation Seguin

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Annex 1: Haiti Climate Security Group – list of members

HAITIAN INSTITUTIONS

Ministère de l'Environnement (DME)

Ministère de l'Agriculture, des Ressources naturelles et du Développement rural (MARNDR)

Ministère de la Planification et de la Coopération externe (MPCE)

Direction Générale de la Protection Civile (DGPC)

Bureau des Mines et de l'Énergie (BME)

UN AGENCIES

UN Environment Programme (UNEP)

UN Development Programme (UNDP)

International Organisation for Migration (IOM)

Food and Agriculture Organisation (FAO)

Office of the High Commissioner on Human Rights (OHCHR)

Office for the coordination of humanitarian affairs (OCHA)

UN Women

World Food Programme (WFP)

UN Resident Coordinator Office (RCO)

International Fund for Agricultural Development (IFAD)

Pan American Health Organisation (PAHO/WHO)

United Nations Educational, Scientific and Cultural Organisation (UNESCO)

International Labour Organisation (ILO)

UN Peacebuilding Fund (PBF)

Climate Security Mechanism (CSM)

INTERNATIONAL ORGANISATIONS

Interamerican Development Bank (IADB)

Swiss Embassy

Agence Française de Développement (AFD)

Mexican Embassy

NON-GOVERNMENTAL ORGANISATIONS

Concern Worldwide Haiti (CWH)

Impacts Initiatives

Church World Service

Tearfund

DKH/LWF/NCA

Handicap international

Institute for Justice and Democracy in Haiti

SOIL

Mercy Corps

CIVIL SOCIETY ORGANISATIONS

Platform of civil society organisations on climate change, including (in alphabetical order):

Action pour l'Amélioration de l'Environnement et l'Avancement de l'Agriculture

Association des Citoyens pour le Progrès Socio-Economique de la Grande-Anse

Asosyasyon Fanm Vanyan pou Komin Sen Mak

Artisans de l'Environnement et de l'Agriculture

Association des Techniciens pour la Promotion de l'Agriculture, de la Protection de l'Environnement du Sud-Est

Centre des Amis de la Nature pour l'Education

Collectif Educa-Dev

Conseils Haïtiens des Acteurs Non Etatiques (37 members)

Fondasyon Men Ansanm (9 members)

Fondation Nord-Ouest Solidaire

Fondation Seguin

Groupe d'Appui au Développement Local

Groupe de réflexion et d'initiative pour l'action citoyenne

Haiti Solidarité Action

Haïti Survie

Initiative de la Société Civile (23 members)

Koperativ Agrikol Matino Kavayon

Konsèy Nasyonal Finansman Popilè (8 members)

Mission Sociale des Eglises Haïtiennes (9 members)

Mouvman Peyizan Papay

Organisation d'Appui au Développement Durable

Organisation Socio-Culturel de Développement

Organisation de Formation et Accompagnement en Technique Agricole

Organisation des Femmes pour le Développement de Verrettes

Organisation pour la Préservation, la Promotion de l'Environnement et de la Biodiversité

Planète des Jeunes de la Francophonie

Promotion pour le Développement

Réseau d'Accompagnement Technique aux Organisations pour le Développement Socio-Economique

Service Chrétien d'Haïti (6 members)

Solidarite Fwontalye

Union des Cadres pour le Développement

Annex 2: List of interviews

Interviews	
Name/position	**Place, date**
Peacebuilder living and working with young people in popular neighbourhoods (affected by gang violence) in Port-au-Prince	Port-au-Prince, 16.03.2023
Expert in conservation working in the south-east of Haiti	Virtual, 20.03.2023
Representative of SOKIJA (youth association)	Virtual, 20.03.2023
Security expert with military background living and working in Port-au-Prince	Port-au-Prince, 21.03.2023
Worker at Wynne Farm Ecological Reserve	Virtual, 22.03.2023
Female activist from popular neighbourhood of Port-au-Prince	Port-au-Prince, 23.03.2023
Young agronomist from Abricots	Port-au-Price, 24.03.2023
Young environmental activist from Cité Soleil	Port-au-Prince, 27.03.2023
Young agronomist from Jacmel	Virtual, 26.03.2023
Young agronomist (South Department)	Virtual, 30.03.2023
Peacebuilder working with young people in popular neighbourhoods (affected by gang violence) of Port-au-Prince	Virtual, 30.03.2023
Milostene Castin, ARED (social and environmental activist)	Virtual, 30.03.2023
Gael Pressoir, dean of agriculture at University of Quisqueya	Virtual, 1.04.2023
Businesswoman from Abricots	Virtual, 12.04.2023
Nixon Boumba, human rights activist and member of the Kolektif Jistis Min nan Ayiti (Haiti Mining Justice Collective)	Virtual, 14.04.2023
Michele Ferenz, independent consultant, author of a 2022 study on food security and conflict in Haiti	Virtual, 26.01.2023
Ulrich Assankpon, WFP	Virtual, 01.02.2023

Jude Castra Pierre and Lili Bazin, Handicap International	Virtual, 23.02.2023
Diego Da Rin, International Crisis Group (author of a 2022 study on insecurity and gang violence in Haiti)	Virtual, 23.02.2023
Jessica Hsu, independent consultant	Virtual, 7.02.2023
Melinda Miles, independent consultant	Virtual, 7.02.2023
Lunise Jules, Haiti country director, Mercy Corps	Virtual, 23.02.2023
Barbara Albrecht, Misereor desk officer for Haiti	Virtual, 01.03.2023
Gabrielle Apollon, New York Centre for Global Justice, expert on migration	New York, 28.03.2023
Yamil Corolan Thelusmond, Aquadev Association	Virtual, 17.03.2023
Sasha Kramer, SOIL	Virtual, 21.03.2023
Bernice Veronica Angela Robertson, political affairs officer (covering Haiti), UN DPPA	Virtual, 27.03.2023
Patrice Laventure, UNDP (expertise on justice systems and human rights in Haiti)	Virtual, 10.02.2023
Jean Weiner, FroProBiM	Virtual, 13.04.2023
Former Haiti country director, Mercy Corps	Virtual, 24.04.2023
Jean Ronald Alexandre, Sadrac Stifleur and Yvio Georges, UNDP Haiti	Virtual, 10.02.2023
Focus Group discussions	
Group consulted	**Place, date**
21 participants (six women and 15 men) including fishers and beekeepers; representatives of farmers' associations and CSOs; municipal and civil protection officers; and local elected officials (CASEC)	BonBon, Grand'Anse, 12.04.2023
20 participants (six women and 14 men) including fishers; representatives of farmers' associations, MARNDR, DINEPA and CSOs; and local elected officials (CASEC)	Gommier, Grand'Anse, 13.04.2023

21 participants (five women, 15 men) including representatives of farmers' associations and CSOs	Leon, Grand'Anse, 15.04.2023
19 participants (seven women, 12 men) including farmers, cattle raisers, beekeepers and fishers, and representatives of CSOs and the Catholic Church	Port Salut, South, 23.05.2023
18 participants (seven women, 11 men) including farmers, cattle raisers, beekeepers and fishers, and representatives of the Catholic Church	Baleine/Fonds des Blancs, South, 26.05.2023
14 participants (three women, 11 men) including farmers, cattle raisers, beekeepers and fishers, and representatives the Catholic Church	Puits Salés/Aquin, South, 25.05.2023
15 participants (four women, 11 young men) including farmers and cattle raisers, and representatives of the Catholic Church, CASEC and CSOs	Limonade, North, 13.07.2023
15 participants (nine women, six young men) including farmers and cattle raisers, people involved in small trade and in the education sector, and representatives of CSOs	Terrier-Rouge, North-East, 12.07.2023
15 participations (all men as this was a market day and women could not attend) including farmers and cattle raisers, people involved in small trade and in the education sector, and representatives of CSOs	Trou-du-Nord, North-East, 14.07.2023
16 participants (seven women, nine men) including farmers and fishers; municipality, civil protection and public health officers; elected officials; and civil society representatives	Petit trou de Nippes, Nippes, 4.06.2023
57 participants (29 women, 28 men) including young professionals, civil protection volunteers, young mediators and peacebuilders, elderly people, people with disabilities, and community leaders	Cité Soleil, Port-au-Prince 29–30.06.2023
Consultations	
Group consulted	**Place, date**
Initial consultation with Haitian and international experts (part of the Working Group on Climate and Security in Haiti) on environment and climate change	Virtual, 18.01.2023

Initial consultation with Haitian and international experts (part of the Working Group on Climate and Security in Haiti) on food security	Virtual, 24.01.2023
Initial consultation with Haitian and international experts (part of the Working Group on Climate and Security in Haiti) on migration and displacement	Virtual, 8.02.2023
Initial consultation with Haitian and international experts (part of the Working Group on Climate and Security in Haiti) on human rights, criminality and justice	Virtual, 13.02.2023
Presentation and discussion of the study with representatives of Haiti's government	Virtual, 6.06.2023
Discussion on preliminary results of the study with experts from the Working Group on Climate and Security in Haiti	Virtual, 6.06.2023
Presentation and discussion of the study with representatives of Haitian CSOs	Virtual, 23.06.2023
Discussion of recommendations with experts from the Working Group on Climate and Security in Haiti	Virtual, 5.07.2023