



Mainstreaming
Migration, Environment
and Climate Change
into (Re)integration
Initiatives in Lesotho



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Mainstreaming Migration, Environment and Climate Change into (Re)integration Initiatives in Lesotho



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IOM Development Fund
DEVELOPING CAPACITIES IN MIGRATION MANAGEMENT

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List of abbreviations and acronyms

CADRI	Capacity for Disaster Reduction Initiative
CBL	Central Bank of Lesotho
COP	Conference of the Parties
CSO	civil society organization
DRR	disaster risk reduction
DHS	Demographic and Health Survey
DMA	Disaster Management Authority
FGD	focus group discussion
IDMC	Internal Displacement Monitoring Centre
ILO	International Labour Organization
IMF	International Monetary Fund
INDC	Intended Nationally Determined Contribution
INDF	Interim National Development Framework
IOM	International Organization for Migration
IPC	Integrated Food Security Phase Classification
LHWP	Lesotho Highlands Water Project
LMS	Lesotho Meteorological Services
LNDC	Lesotho National Development Corporation
LVAC	Lesotho Vulnerability Assessment Committee
MECC	migration, environment and climate change
NAPA	National Adaptation Programme of Action
NCCP	National Climate Change Policy (Lesotho)
NCCPIS	National Climate Change Policy Implementation Strategy
NDC	Nationally Determined Contribution
NDRRP	National Disaster Risk Reduction Policy
NGO	non-governmental organization
NRC	Norwegian Refugee Council
NSDP	National Strategic Development Plan
NSRF	National Strategic Resilience Framework
PPF	Project Preparation Facility
RPF	Resettlement Policy Framework
SADC	Southern Africa Development Community
SDG	Sustainable Development Goal
SNEV	National Strategy for the Promotion of Green Jobs (Senegal)
UNFCCC	United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commissioner for Refugees
WASCO	Water and Sewerage Company
WFP	World Food Programme

Glossary

IOM Glossary – Key definitions on migration, environment and climate change

Climate migration

The movement of a person or groups of persons who, predominantly for reasons of sudden or progressive change in the environment due to climate change, are forced to leave their habitual place of residence, or choose to do so, either temporarily or permanently, within a State or across an international border. *Note:* This is a working definition of IOM with an analytic and advocacy purpose which does not have any specific legal value. Climate migration is a subcategory of environmental migration; it defines a singular type of environmental migration, where the change in the environment is due to climate change. Migration in this context can be associated with greater vulnerability of affected people, particularly if it is forced. Yet, migration can also be a form of adaptation to environmental stressors, helping to build resilience of affected individuals and communities.

– IOM, 2019a:31

Disaster displacement

The movement of persons who have been forced or obliged to leave their homes or places of habitual residence as a result of a disaster or in order to avoid the impact of an immediate and foreseeable natural hazard. *Note:* Such displacement results from the fact that affected persons are (i) exposed to (ii) a natural hazard in a situation where (iii) they are too vulnerable and lack the resilience to withstand the impacts of that hazard. It is the effects of natural hazards, including the adverse impacts of climate change, that may overwhelm the resilience or adaptive capacity of an affected community or society, thus leading to a disaster that potentially results in displacement. Disaster displacement may take the form of spontaneous flight, an evacuation ordered or enforced by authorities or an involuntary planned relocation process. Such displacement can occur within a country (internal displacement), or across international borders (cross-border disaster displacement).

– IOM, 2019a:51

Disaster

A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts. *Note:* The International Law Commission adopted the following alternative definition of disaster, which includes an express reference to mass displacement: “disaster” means a calamitous event or series of events resulting in widespread loss of life, great human suffering and distress, mass displacement, or large-scale material or environmental damage, thereby seriously disrupting the functioning of society.

– IOM, 2019a:50

Environmental migrant

A person or group(s) of persons who, predominantly for reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are forced to leave their places of habitual residence, or choose to do so, either temporarily or permanently, and who move within or outside their country of origin or habitual residence. *Note:* There is no international agreement on a term to be used to describe persons or groups of persons that move for environment related reasons. This definition of environmental migrant is not meant to create any new legal categories. It is a working definition aimed at describing all the various situations in which people move in the context of environmental factors.

– IOM, 2019a:64

Hazard

A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation. *Note:* Each year millions of people are displaced by the adverse effects of natural hazards, such as floods, tropical storms, earthquakes, landslides, droughts, saltwater intrusion, glacial melting, glacial lake outburst floods, and melting permafrost. Of these, the great majority is displaced by weather- and climate-related hazards. The largest increases in displacement resulting from the effects of natural hazards are related to sudden-onset weather and climate-related hazards, and floods in particular. In addition, people are increasingly forced to move because of the slow-onset effects of sea level rise, desertification or environmental degradation. Climate change, combined with people’s increasing exposure and vulnerability, is expected to magnify these trends, as extreme weather events become more frequent and intense in the coming decades.

– IOM, 2019a:89

Human mobility

A generic term covering all the different forms of movements of persons. *Note:* The term human mobility reflects a wider range of movements of persons than the term “migration”. The term is usually understood as also encompassing tourists that are generally considered as not engaging in migration. As an example of the emergence of this term, the international organization’s members of the Advisory Group on Climate Change and Human Mobility created in the context of the Parties of the UN Framework Convention on Climate Change have started to use the term human mobility to cover all the broad range of types of movements that can take place in the context of climate change.

– IOM, 2019:93

Internal migration

The movement of people within a State involving the establishment of a new temporary or permanent residence. *Note:* Internal migration movements can be temporary or permanent and include those who have been displaced from their habitual place of residence such as internally displaced persons, as well as persons who decide to move to a new place, such as in the case of rural–urban migration. The term also covers both nationals and non-nationals moving within a State, provided that they move away from their place of habitual residence.

– IOM, 2019a:107

Labour migration

Movement of persons from one State to another, or within their own country of residence, for the purpose of employment. *Note:* In line with the definition of migrant, labour migration is defined as covering both migrants moving within the country and across international borders. This choice is also justified by the significant number of persons moving within the same country for work purposes who sometimes face the same barriers or challenges faced by international migrants, such as discrimination and difficulties in integration. Although such challenges may be greater for migrants moving across borders, they are not totally absent also for internal migrants.

– IOM, 2019a:123

Planned relocation

In the context of disasters or environmental degradation, including when due to the effects of climate change, a planned process in which persons or groups of persons move or are assisted to move away from their homes or place of temporary residence, are settled in a new location, and provided with the conditions for rebuilding their lives. *Note:* The term is generally used to identify relocations that are carried out within national borders under the authority of the State and denotes a long process that lasts until “relocated persons are incorporated into all aspects of life in the new setting and no longer have needs or vulnerabilities stemming from the Planned Relocation”.

– IOM, 2019a:157

Reintegration

A process which enables individuals to re-establish the economic, social and psychosocial relationships needed to maintain life, livelihood and dignity and inclusion in civic life. *Note:* Social reintegration implies the access by a returning migrant to public services and infrastructures in his or her country of origin, including access to health, education, housing, justice and social protection schemes. Psychosocial reintegration is the reinsertion of a returning migrant into personal support networks (friends, relatives, neighbours) and civil society structures (associations, self-help groups and other organizations). This also includes the re-engagement with the values, mores, way of living, language, moral principles, ideology, and traditions of the country of origin’s society. Economic reintegration is the process by which a returning migrant re-enters the economic life of his or her country of origin and is able to sustain a livelihood.

– IOM, 2019a:176

Return migration

In the context of international migration, the movement of persons returning to their country of origin after having moved away from their place of habitual residence and crossed an international border. In the context of internal migration, the movement of persons returning to their place of habitual residence after having moved away from it. *Note:* For statistical purposes, the United Nations Department of Economic and Social Affairs (DESA) defines returning migrants as “persons returning to their country of citizenship after having been international migrants (whether short term or long term) in another country and who are intending to stay in the country for at least one year”.

– IOM, 2019a:186

“Trapped” populations

Populations who do not migrate, yet are situated in areas under threat, [...] at risk of becoming “trapped” or having to stay behind, where they will be more vulnerable to environmental shocks and impoverishment. *Note:* The notion of trapped populations applies in particular to poorer households who may not have the resources to move and whose livelihoods are affected.

– IOM, 2019a:220

Vulnerable group

Depending on the context, any group or sector of society (such as children, the elderly, persons with disabilities, ethnic or religious minorities, migrants, particularly those who are in an irregular situation, or persons of diverse sex, sexual orientation and gender identity (SSOGI)) that is at higher risk of being subjected to discriminatory practices, violence, social disadvantage, or economic hardship than other groups within the State. These groups are also at higher risk in periods of conflict, crisis or disasters.

– IOM, 2019a:230

Executive summary

Climate change and environmental degradation as major drivers of migration across the globe have continued to attract both scientific and policy attention. While ongoing scientific and policy debates have sought to clarify environmental change-related migration as often mediated by complex multicausal factors, it is also increasingly recognized that climate change will aggravate environmental degradation and natural hazards, and as such increase population movements in particularly vulnerable areas. Amidst the ongoing debates on the impact of climate change on human mobility, the issues of return and sustainable reintegration have increasingly gained prominence and are strongly being promoted as part of comprehensive and effective migration management. Given that return migration to the home or receiving community is much more complex and encompassing, the emphasis on facilitating sustainable reintegration – in the context of climate and environmental change and the impact of the COVID-19 pandemic on countries and migration – has informed the need to develop appropriate policy and institutional frameworks and strategy in enhancing sustainable reintegration of returnees in local communities.

As already manifesting in many parts of Lesotho, climate and environmental change impact on agricultural productivity, as well as a decline in flow of migrant remittances to rural households have contributed to acute food insecurity and increasing poverty across the districts. These challenges cumulatively contribute to driving the internal migration of people from rural to urban areas in pursuit of non-farm jobs in the garment industry and in other sectors. Moreover, the increase in return migration to rural communities in the face of climate change and environmental degradation, as well as the general lack of economic opportunities, have continued to undermine the potential for sustainable reintegration of returnees in promoting inclusive growth, poverty reduction and prosperity in Lesotho. This study thus examined the impact of climate and environmental change on migration, return and (re)integration in Lesotho.

This study has been conducted as part of the IOM research project titled “Mainstreaming Environmental Dimensions in Integration, Reintegration and Relocation Initiatives in Lesotho and Mauritius” and with financial support from the IOM Development Fund. The overall objective of this research project is to explore the interlinkages between environment, climate change and migration in Lesotho and Mauritius with the aim of contributing to the sustainability of integration, reintegration and planned relocation as adaptation strategies to climate change, in a gender-sensitive manner. The project is being implemented under the auspices of the IOM Southern Africa Regional Office, IOM Lesotho and IOM Mauritius.

In the context of Lesotho, this study was guided by the following four broad research questions:

- (a) How does climate change and related environmental degradation impact migration and reintegration in Lesotho?
- (b) What do returnees and internal migrants perceive as their immediate and longer-term needs to become resilient to current and predicted climate change impacts?
- (c) What are the existing best practices in terms of schemes, programmes and policies that support the adaptation of returning workers to climate change and environmental degradation, as well as support the integration of incoming labour migrants to local or national labour market in Lesotho?
- (d) What policy and programming recommendations can support the sustainable reintegration of returnees and internal migrants, including populations at risk, that have immediate and long-term positive impacts on both the local communities and the environment?

Based on a mixed methodological approach, involving the use of both quantitative and qualitative research methods, information was solicited from selected key national stakeholders and vulnerable populations/migrants, as well as districts in Lesotho over a period of three months (January–March 2022). For the data collection, two different sets of research instruments were deployed to collect data from key national stakeholders (survey questionnaires) and vulnerable populations migrants (interview guide) (see Annex 2). In addition to the key stakeholder surveys and in-depth interviews, a total of three FGDs were also conducted. These consisted of two FGDs with selected “vulnerable persons” from some selected districts and the other with key stakeholders (see Table 1). Before the field data collection, an extensive desk review and analysis of existing legislation and governance frameworks were conducted to ascertain how the issues of climate and disaster-related human mobility, sustainable reintegration and gender were being addressed at the national level.

Out of the 29 policies and legislations that have been identified in Lesotho, 15 acknowledge the linkages between climate change and/or environmental degradation, disasters and population movements, 20 raise gender equality concerns, and 6 refer to (re)integration and related issues. No existing green growth policy strategy or framework was identified. With regard to climate change, environmental degradation and disasters in Lesotho, the majority of research participants pointed to observed changes in rainfall patterns and the increasing occurrence of extreme events, such as droughts, snowfall, hailstorms and heatwaves over the last few decades across the country. Also, changes in day and night-time temperatures and in the different seasons were also identified as partly accounting for the unusual warm winters and cold summers that were being witnessed in recent times. The issues of acute land degradation and the associated loss of biodiversity were mentioned as

being endemic and remain major challenges in rural communities across the country. It was also highlighted that the adverse effects of climate change, environmental and land degradation in Lesotho have mostly been on agricultural production, water scarcity and lack of pasture due to drought impact on vegetation growth. With the majority of the population deriving their livelihoods and sustenance from rain-fed agriculture and the natural resource base, the effect on food security and loss of livelihoods have tended to derail efforts at poverty reduction in Lesotho.

The impact of climate change and environmental degradation in Lesotho was found to be widespread and not limited to only specific communities or ecological zones. Nevertheless, the rural farm households, herders and vulnerable groups such as women, children, as well as the elderly and persons with disabilities, were identified as groups who bore the brunt of the observed climatic changes and related natural hazards in the country. In response to climate and disaster impacts across the rural communities, an assortment of strategies and responses were listed by research participants. Most measures that people listed were not peculiar to certain events but have mainly been ad hoc and tended to overlap the different climate or disaster events. In the case of drought, heatwave and related water scarcity, the responses mentioned mainly straddled walking long distances in search of water to getting water supply from tankers. Other than the sale of livestock to earn a living when the land seems to lose its productive capacity, the strategy of sharecropping and later sharing the food after harvest was also enumerated.

With regard to the underlying motivations or factors that informed the decision to migrate to any other place out of their community or usual place of residence, a host of socioeconomic and environmental reasons were advanced as accounting for the decision to migrate. Although labour migration, especially to South Africa, has over the years evolved as part of the social organization of Basotho, the main reason for migration have mostly been to seek job opportunities in order to gain waged income. The impact of climate change and environmental degradation on agricultural livelihoods and water scarcity were also implicated as amplifying existing mobility patterns and endemic poverty in vulnerable rural communities. With the rain-fed agricultural sector affected by climate change and environmental degradation, many rural communities are grappling with acute food insecurity. In this light, most family members stated the need to assist or migrate in order to provide food and income for household provisioning as an important motivation for migrating. The lack of social infrastructure and the need to access better educational opportunities outside of rural communities were also identified as drivers of migration for especially young people.

On the other hand, the flow of remittances as an important source of household income and foreign exchange has also significantly declined in the past few years. This decline was attributed to the large-scale retrenchment and loss of jobs

due to COVID-19 and climate change impact in both South Africa and Lesotho. The compounding effect has been the sustained migration of people from rural communities to urban and peri-urban areas in search of livelihood opportunities, which are also limited or non-existent. It has also been observed that many Basotho migrants are returning to rural communities. However, returnees are finding it difficult to reintegrate due to several factors. Considering that many of the returnees were low skilled or had skills that could not match existing demands or fit into the labour market, it had become increasingly difficult and frustrating to reintegrate in communities upon return. Given climate change impact on food security and the loss of remittances as a stable source of income for households, many rural dwellers and returnees have tended to migrate to urban and peri-urban areas, with women also actively involved in migrating and leaving children behind. The situation has tended to further derail efforts at poverty reduction, sustainable reintegration and climate adaptation in Lesotho.

Although existing climate, migration and national development policy frameworks have variously outlined strategies at enhancing DRR, social protection and tapping into the potential of well-managed migration as an adaptation strategy and tool for economic development, translating these strategies on the ground has remained a challenge. Based on the insights gathered from this study, a host of recommendations have been outlined to contribute to sustainable (re)integration, climate change adaptation, inclusive growth and poverty reduction in Lesotho. Alongside advocating the design of a national green growth economic strategy to guide the shift to a green economy and the creation of green and sustainable jobs and to promote climate resilience, the recommendation is also to make provision for skills training for returnees and labour migrants. (Green) skills training could be targeted at vulnerable groups like young people, the elderly and persons with disabilities and women. This would enhance their employability and address skills gaps in the different sectors in Lesotho, while allowing for inclusive growth, climate resilience and sustainable (re)integration in Lesotho.

The recommendation is also for the establishment of a special desk for investment promotion and support centres for the diaspora and returning Basotho at the district level in the context of the LNDC. It is envisaged that establishing a desk with a focal point within the investment and trade promotion section, and support centres across the districts would help provide information, guidance and counselling on strategic investment for sustainable businesses and job creation at the local level. The idea is also for the special desk and support centres to advise or provide counselling to returnees and Basotho diaspora who are planning to return, as well as immigrants, on how to invest their money for sustainable and profitable businesses. The proposition is also to ensure stronger cooperation and coordination between the different ministries and key actors, and mainstream MECC into sectoral programming to enhance adaptation capacities.

Other than enhancing social protection and adopting a proactive response to climate change and disaster impact, the recommendation is for the relevant authorities and stakeholders to improve overall education and mainstreaming of climate, environment and sustainability into national development and sectoral planning. These issues could already be integrated into educational curricula at the basic school level, while community-based climate adaptation projects, sensitization and environmental conservation should be participatory by involving all key stakeholders at the local level. Furthermore, the need to improve data collection and availability for planning, climate adaptation programmes and sustainable (re)integration is also encouraged. On the regular collection of data, relevant national agencies like the Statistics Bureau, the DMA and Department of Environment could develop and include indicators on climate change, disasters and human mobility dimensions as part of their data collection processes. The collection of disaggregated data on human migration, return and motivations, as well as skills intelligence, socioeconomic and ecological implications could be integrated as part of censuses, labour surveys, DHS and data being collected by the Immigration Department. These data could be pooled into a common database for informed planning and response to climate change and disaster or development planning.

Altogether, this report is organized into five sections. Section one entails an analysis of the existing national governance frameworks and legislation on climate change, environment, disaster and human mobility nexus, and reintegration in Lesotho. Afterwards, the discussion delves into the questions of climate change, hazards and the impact on populations and livelihoods, as well as responses that vulnerable populations make in the face of climate change impact across rural communities in Lesotho. Furthermore, the section examines the questions of human mobility, return and reintegration in rural communities. In the third section, the discussion examines the nature and effect of the planned relocation/resettlement exercises and the effects on local communities. The fourth section highlights the proposed measures from research participants to enhance climate change adaptation. Afterwards, the report concludes by outlining recommendations to address climate-related migration, climate adaptation, resilience and sustainable (re)integration of returning and labour migrants in Lesotho.

1.

Introduction

Climate change and environmental degradation as major drivers of migration across the globe have attracted both scientific and policy attention over the years (Piguet, 2013; Ionesco et al., 2017; Flavell et al., 2020). While ongoing scientific and policy debates have sought to clarify environmental migration as often mediated by complex multicausal factors (IOM, 2014; Piguet and Laczko, 2014; Cattaneo et al., 2019), it is also increasingly recognized that climate change will aggravate environmental degradation and natural hazards, and as such increase population movements particularly in regions that are highly exposed and vulnerable to climate-related risks and shocks (Renaud et al., 2011; Hummel et al., 2012; Rigaud et al., 2018).

As manifested in the Southern African region, for example, the devastating impact of Cyclone Eline in 2000 resulted in the displacement of more than 1 million people (NRC, IDMC and UNHCR, 2015). More recently, in 2019, cyclones Idai and Kenneth respectively displaced about 640,000 and 45,000 people in the region (IDMC, 2020). Taking into consideration the nature and spatial extent of future climate change impact and natural hazards, the World Bank has projected that in a scenario of sustained carbon emissions and unequal levels of development, sub-Saharan Africa could record up to more than 85 million climate-related migrants by 2050 (Rigaud et al., 2018). In many instances, vulnerable or affected persons may adapt to climate and environmental change impacts or natural hazards in situ (Cubie, 2017; Etana et al., 2020). Others may be unable to effectively adapt or be displaced and thereby forced to migrate or relocate to less vulnerable areas as a last resort (Warner and Afifi, 2014; Schraven et al., 2021).

The capacity and decision to migrate are largely influenced by complex socioeconomic factors operating at the micro and macro levels (Foresight, 2011; Renaud et al., 2011; Sakdapolrak et al., 2014). Hence, some other vulnerable persons may be unable to move and thereby remain “trapped” in long-term or perpetual conditions of vulnerability due to a myriad of constraints (Barnett and Webber, 2010; Black et al., 2013; Afifi et al., 2015; Nawrotzki and DeWaard, 2018). As shown in Malawi, South Africa and Zambia, for instance, the lack of appropriate institutional frameworks, as well as lack of financial, physical and social capital can erode the capability of vulnerable people to move and thus remain trapped despite the exposure or impact of climate change risks (Hunter et al., 2014; Mastrotillo et al., 2016; Suckall et al., 2017; Nawrotzki and DeWaard, 2018).

The evidence from studies across different parts of the world suggests that vulnerable populations and rural communities have long adopted different strategies, including migration, to cope or adapt to the adverse effects of climate change and environmental degradation (Vincent et al., 2013; Nguimalet, 2018; Piguet and Laczko, 2014). While the existing local or indigenous strategies have undoubtedly instigated calls for a participatory approach and to mainstream local adaptation strategies into national development planning and climate action for enhancing resilience to climate change and environmental degradation (Mertz et al., 2009, Stringer et al., 2009;

Rethabile et al., 2021), the potential of migration as a successful adaptation strategy has also been widely recognized in both scientific and policy circles (Scheffran et al., 2012; Afifi et al., 2015; IOM, 2014; Melde et al., 2017).

Amidst the ongoing debates on the impact of climate change on human mobility and the potential of migration as adaptation strategy, the issues of “return” and “sustainable reintegration” have increasingly gained prominence and are strongly being promoted as part of comprehensive and effective migration management (IOM, 2017 and 2021a). The increasing focus on sustainable reintegration may have partly been invigorated by the rise in large-scale irregular migration and efforts to promote effective migration management and to address the root causes in especially origin countries (Koser and Kuschminder, 2015; IOM, 2019b). Given that return migration to the home or receiving community is much more complex and encompassing, the emphasis on facilitating sustainable reintegration in the context of climate and environmental change and the impact of the COVID-19 pandemic on countries and migration, informs the need to develop appropriate policy and institutional frameworks and strategy to enhance sustainable reintegration of returnees in local communities (IOM, 2020; IOM/Skillshare 2020).

1.1. Background and context of this study

1.1.1. Study area in context: Country profile of Lesotho

Lesotho is a landlocked country and completely bordered on all sides by South Africa. The country has a total land area of 30,355 km². The landscape is predominantly marked by a mountainous relief, with 80 per cent of the total land mass situated at more than 1,800 metres above sea level (Government of Lesotho, 2018a). Administratively, Lesotho is divided into 10 districts, namely Maseru (also the capital city), Berea, Leribe, Mafeteng, Mophale's Hoek, Quthing, Butha-Buthe, Mokhotlong, Qacha's Nek and Thaba-Tseka (Bureau of Statistics, 2016; Government of Lesotho, 2018a).

The climate of Lesotho is continental with alpine characteristics (LMS, 2017a). Despite being a landlocked country (see Figure 1), the country's topography and proximity to both the Indian and Atlantic oceans has influenced its climatic patterns over the years. As a result, the country experiences a highly variable semi-arid climate with a rainfall season that usually starts in late November to March, and characterized by hailstorms, droughts, floods, snow, frosts and tornadoes (LMS, 2013). Mean annual rainfall ranges between 500 mm and 760 mm, while temperatures range between 10°C and 30°C (ibid.). The winters are often dry and severe especially in the highlands. This often results in no active vegetative growth and thereby, presenting favourable conditions for erosion with the onset of the early spring rains.

Figure 1. Map of Lesotho showing administrative districts



Source: United Nations Geospatial Information Section, 2020.

Note: This map is for illustration purposes only. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the International Organization for Migration.

The relief and micro-climatological influences define the four ecological zones of the country, consisting of the lowlands, foothills, mountains and Senqu River Valley (Government of Lesotho, 2010) (Figure 1). These zones are marked by distinct climatic and ecological characteristics, which also determine the nature and type of vegetation, population densities, land-use practices and socioeconomic activities (Mucina and Rutherford, 2006; Government of Lesotho, 2014). The majority of socioeconomic activities in Lesotho are restricted to the lowlands, the foothills and the Senqu River Valley zone, leaving the rugged mountain region to be used primarily as rangelands for livestock grazing (World Bank, 2021).

The population of the country is estimated to be a little over 2 million people (Bureau of Statistics, 2016). More than half of the population (58%) is estimated to be living in rural areas, and with the majority (70%) dependent on rain-fed subsistence agriculture

(Government of Lesotho, 2018a). But due to the negative impact of climate change – mainly recurring drought, rainstorms, periodic flooding and acute land degradation – on agricultural production, many households are faced with food insecurity (LMS, 2017b; IPC, 2022). The slump in the out-turn of agricultural production has seen the sector's share to GDP plummet since the 1980s (Government of Lesotho, 2018a). Between 1999 and 2016, for instance, the share of agriculture to GDP recorded a drop from 13.6 per cent (1999) to 7.1 per cent in 2011 and subsequently, to 6.9 per cent by the close of 2016 (African Development Bank, 2013; Government of Lesotho, 2018a). A consequence of declining agriculture is that the share of employment in agriculture to the total population has also consistently dropped from about 61 per cent in 1991 to 44 per cent in 2019 (World Bank, n.d.a).

Since 1961, Lesotho has recorded fluctuating economic growth with a high GDP of 26.4 per cent being recorded in 1973 (World Bank, n.d.b). But following a negative growth in 1975 and subsequent fluctuations over the years, the passage of the African Growth and Opportunity Act in 2000 brought some relative improvements to the economy (Seyoum, 2007). The corresponding access to the market of the United States of America saw a revamp and expansion in the textile and garment industry, and relative economic growth in Lesotho. This contributed to the net increase in employment and a rebound of the subsector's share to GDP of up to 23 per cent in 2004 (Government of Lesotho, 2018a:23).

However, the textile and garment industry has in recent times witnessed a decline due to competition in the United States market from Asian producers. Accordingly, its contribution to the GDP declined to only 10 per cent in 2014. Since the discovery of diamonds at Letseng in 1967, the diamond sector has not significantly blossomed to become the engine of economic growth of Lesotho as expected (Maleleka, 2007; Makhetha, 2017). Nevertheless, the steady contribution of the diamond sector to the mining and quarrying subsectors, for example, increased the subsector's share of GDP growth from 0.9 per cent in 2004 to 4.5 per cent in 2011 (CBL, 2012). In 2021, diamond exports accounted for 22 per cent of total exports in Lesotho (Trading Economics, 2022). Besides contributing to increasing Lesotho's foreign reserves through export earnings, the diamond industry has also accounted for the employment of over 2000 Basotho workers as of the end of 2012 (ibid.). Recent estimates from CBL, however, suggests that the diamond mining industry accounted for up to 1,500 employees as of 2019 (Khoabane, 2020). The likely future growth and expansion of the sector has the potential to offer opportunities for employment and poverty reduction in the country (Maleleka, 2007; CBL, 2012).

Aside from the general decline and climate change impact on agricultural production, the impact of the COVID-19 pandemic on the national economy also translated into a negative growth rate of 9.6 per cent in 2020 (World Bank, n.d.b). The compounding effect of land degradation, climate change-induced drought and natural hazards on agriculture, as well as economic decline has exacerbated economic hardship, food

insecurity and high levels of poverty especially in rural areas (Letsie and Grab, 2015; WFP, 2015; IPC, 2022).

Based on the 2017/2018 assessments, it is estimated that almost half of the total population (49.8%) live below the national poverty line (648.88 Lesotho loti, 2017 prices) (Government of Lesotho, 2018a; World Bank, 2021). Given the impact of the COVID-19, the flow of migrant remittances to rural households has also significantly declined due to the loss of jobs, mass retrenchment and return of many Basotho migrant workers to Lesotho (IPC, 2020; IOM/Skillshare, 2020; African Development Bank, 2021). The situation has precipitated the increased migration of people from rural areas to urban centres like Maseru and Leribe (Government of Lesotho, 2018a; Bureau of Statistics, 2019a). It is envisaged that climate change impact, food insecurity and worsening socioeconomic conditions will further drive and shape migration dynamics in Lesotho (LMS, 2015).

Over the past two intercensal periods from 1996 to 2016, for instance, the proportion of population growth in the capital of Maseru increased from 21 per cent in 1996 to 25.6 per cent in 2016 (Bureau of Statistics, 2016). The same observation can be made for the district of Leribe. Besides the role of natural population increase, the influx of migrants from rural areas or districts in search of economic opportunities has been implicated as contributing to the increasing urban growth in Maseru (*ibid.*). However, due to limited job opportunities and lack of skills, the majority of these migrants are often forced to work in the informal sector, especially as street vendors with many also resorting to residing in poor peri-urban areas (Rocchi and Del Sette, 2016).

In addition to the internal movements, Lesotho has also witnessed an increase in immigration of foreigners (Cobbe, 2012; Government of Lesotho, 2018b). This has seen a total of 9,700 foreigners living in Lesotho as of 2016 (Bureau of Statistics, 2016). Most of these immigrants are migrant workers from South Africa (51%), followed by Zimbabwe (11.2%) and China (6.3%). Others are from Botswana, Malawi, Nigeria and Uganda (*ibid.*).

The majority of these foreigners tend to reside in urban areas as professionals or investors operating private businesses in wholesale and retail sectors (Hanisch, 2013; Government of Lesotho, 2018b; Bureau of Statistics, 2019a). On the part of returning Basotho, the majority tend to go back to communities of origin and later to peri-urban areas (IOM/Skillshare, 2020). The lack of economic opportunities could have significant implications for (re)integration and socioeconomic well-being in the country (Hanisch, 2013; Nkuebe, 2020). On the other hand, the competition for scarce natural resources could degenerate to acute conflicts with implications for peace and national stability.

1.1.2. Historical antecedents and evolution of labour migration in Lesotho

Lesotho has long been characterized by high rates of both internal (mainly rural–urban) and international migration, mostly to South Africa (Ministry of Health/ICF International, 2016; Bureau of Statistics, 2016; IOM/Skillshare 2020). Labour migration, especially to South Africa, has been a common feature of the social organization and a livelihood strategy for many families in Lesotho (Ketso, 2014; Rocchi and Del Sette, 2016). An understanding of the migration patterns of the Basotho is deeply rooted in the political, economic and historical evolution of Lesotho as a country (Boehm, 2005; Cobbe, 2012).

Existing historical accounts indicate that the delineation and subsequent evolution of Lesotho as a political, economic and geographic space was an outcome of struggles over land in Transorangia (Orange Free State) between the indigenous people and the migrating Boers in the 1820s (Cobbing, 1988; Maloka, 1995; Legassick, 2010). At the time, Basotho were mainly engaged in crop production, hunting and gathering, and pastoralism for sustenance (Maloka, 1995). However, the Difaqane/Mfeqane (crushing) period, and the subsequent interventions of colonialists, disrupted agricultural production (McKenna, 2011). Although precolonial inter-tribal strife and land conflicts greatly contributed to the dislocation and subsequent migration of populations, the founding of the Basotho nation by King Moshoeshoe I brought together scattered populations and chiefdoms as the Sotho Nation (Bardill and Cobbe, 1985).

Even with the ability to repel any incursions that came with the unity of the lineages and chiefdoms to form the Sotho Kingdom, the recurring threats and violent upheavals were disruptive enough and hence, had the culminating effect of dislodging many Basotho from their land and agrarian economic production (McKenna, 2011). As a consequence, many Basotho fled to the then Cape Colony and Griqualand as refugees (Maloka, 1995). Following a period of relative peace in the region with the arrival of missionaries, continuous labour migration to these regions was increasingly used as a strategy to acquire new cattle or restock the cattle that had been lost (*ibid.*).

While these historical antecedents may to some extent be marked as precursors for the observed patterns of contemporary Basotho labour migration, the impact of anti-colonial wars, cattle raiding and land dispossession beyond the borders of Lesotho also saw the influx of persons coming in to seek refuge. The corresponding demand and pressure on land that came with population growth initiated the increasing expansion of settlements and agricultural activities to the Maluti highlands. Following the introduction of ox-driven plough, the production and export of grains also increased in response to demand from the newly opened industrial and mining establishments in the Orange Free State and Gaunteng Provinces of South Africa (Mensah and Naidoo, 2011; Cobbe, 2012). Despite the self-sufficiency and relative economic prosperity that came with the Basotho participation in the regional

economy and boom from the discovery of diamonds in 1867, a combination of complex and intertwined factors worked in orchestrating the sustained decline in agricultural productivity, and the transformation of Basotho as a labour reserve to service the mines and manufacturing industries in neighbouring South Africa (Murray, 1980; Cobbe, 2012).

Besides the impact of recurring droughts, locust invasion, disease infection of livestock and land degradation on agricultural productivity, the imposition of the Hut Tax¹ in 1870 and land dispossession by the colonial administration in many ways served to undermine the self-sufficiency and entrepreneurial capacities of Basotho to produce more for sustenance and export (Mensah and Naidoo, 2011). An effect of these historical developments on Lesotho was the transition from being the granary of Southern Africa to becoming a labour reserve and a net importer of maize for sustenance (Murray, 1980; Cobbe, 1982).

Amidst the demand for labour and good wages that came with the budding diamonds, gold mines and industrial hubs in South Africa, Basotho men became increasingly enticed as migrant workforce to earn the much-needed non-farm waged income (Murray, 1980; McKenna, 2011). This sustained pattern of labour migration to work in South Africa has since become established with Basotho men circulating between Lesotho and South Africa as migrant workforce and to generate the much-needed household income by way of remittances (Cobbe, 2012; Matsumoto, 2014). Aside from these historical developments, other studies have pointed to Basotho migration and settlement in other parts of Southern Africa and beyond. In Zimbabwe, for example, Mujere (2014) details the arrival and purchase of land by Basotho evangelists and educationists, who migrated with missionaries and have since settled until today.

In contemporary times, these patterns of labour migration to work in South Africa, as well as other countries within Southern Africa, Asia, North America and Europe have been observed (McDonald et al., 2000; Crush et al., 2010; Abadura et al., 2014; Bureau of Statistics, 2016). Recent conservative estimates suggest that there are about 420,000 Basotho migrants (unskilled, semi-skilled, including irregular migrants) workers engaged in the different sectors of the economy in South Africa (IPC, 2020). With specific reference to the number of mineworkers, the suggestion is that there were over 19,000 Basotho mineworkers in South Africa as of 2020 (ibid.). In the face of economic hardship and declining agriculture in the country, migrant remittances have remained a critical and stable source of household income to poor families and for the national economy (Sparreboom and Sparreboom-Burger, 1995; Crush et al., 2010; Motelle, 2011).

¹ Taxation on any dwelling or other forms of households by the then British colonial authorities to generate revenue. This was payable in either cash, grain, labour or livestock. Amount payable sometimes depended on whether you were living and working on a white-owned farm, or living elsewhere but providing labour or not providing labour at all.

1.1.3. Climate/Environment change and migration

As a landlocked developing country, Lesotho has witnessed changes in its climate with an observed increase in frequency and intensity of extreme climatic events, such as droughts, wind and snowstorms, and floods, while precipitation levels have significantly declined over time (LMS, 2013). Lesotho's INDC, for instance, highlights that the country had recorded an average increase in temperature of 0.76°C within the period of 1967–2006 (LMS, 2017b). With the rapid increase in temperature having been observed in the early 1980s, recent projections estimate an increase of 1°C by 2030 and between 1.5°C and 2.0°C by 2050 (ibid.).

According to the 2019 Global Climate Risk Index,² Lesotho is ranked 61 (out of 180 countries) on the list of countries most affected and vulnerable to climate change impacts (Eckstein et al., 2021). In particular, recurring droughts in the greater Southern African region have contributed to a decline and change in the rainfall pattern with adverse implications for agricultural production and water availability in Lesotho (LMS, 2015; Kamara et al., 2020). Besides the negative impact on food security (Multi-Agency Drought Assessment Team, 2016), the far-reaching impacts on water resources could affect countries like Botswana, Namibia and South Africa, which also derive their freshwater sources from Lesotho (Dejene et al., 2011; Verschuur et al., 2021).

The occurrence of weather-related shocks are common features of climate dynamics in Lesotho to which Basotho have long adapted and developed coping mechanisms (Nash and Grab, 2010). However, recent climatic changes and increase in the frequency and severity of extreme events have tended to overwhelm existing coping systems (Thabane et al., 2014; LMS, 2017a). In addition to land degradation and increasing loss of arable land due to increasing encroachment for settlement, it has widely been identified that farming activities and exploitation of biomass for domestic fuel in especially highland areas pose significant threats to food security and also a push factor driving migration to urban and peri-urban areas (Government of Lesotho, 2018a).

Climate change impact on agricultural production has contributed to the decline in crop yields over the years (Obioha, 2010; Sekaleli and Sebusi, 2013). As detailed in the 2019 LVAC report, the 2018/2019 farming season had been blighted with a delay in the onset of rainfall, which affected soil moisture conditions and the growth of crops (LVAC, 2019). The effect of other weather events such as hot temperatures, prolonged dry spells, hailstorms and pests on yields of cereals and livestock production had further exacerbated the food insecurity situation for the 2019/2020 season in all the 10 districts across the country (IPC, 2020).

² It analyses and ranks to what extent countries and regions have been affected by impacts of climate-related extreme weather events (storms, floods, heatwaves etc.).

Recent interviews by IOM in June 2021 with some authorities in Sekameng Community Council, for instance, revealed that some smallholder farmers who were unable to afford or did not have access to irrigation systems had abandoned their farms and relocated to South Africa.³ In dry places in Southern districts, many families have entirely left their farmlands and relocated to peri-urban areas in pursuit of alternative livelihood opportunities.⁴ In the face of population growth and environmental degradation, due to over-cultivation, grazing and vegetation loss, ecosystems have also been overexploited, resulting in severe degradation (LMS, 2000; Maro, 2011). Competition for land, pasture, land degradation and declining agriculture have contributed to the migration of pastoralists and smallholders from rural (especially in the Southern lowlands) to urban areas, and from mountainous agro-ecological zones to lowland agro-ecological zones (Olutayo, 2012), while new and latent conflicts are being triggered in the face of increasing natural resource scarcity (LMS, 2011; Maro, 2011; Mwangi, 2021).

Cross-border migration to South Africa and neighbouring countries to work was mainly dominated by young males between 20 and 44 years of age in earlier times (see Cobbe, 1982; Plath et al., 1987; Boehm, 2005). In addition to the increasing emigration of highly skilled professionals, many women and young migrants⁵ are now also actively involved in labour migration to South Africa and internally to urban areas for economic reasons (Griffin, 2010; Cobbe, 2012; Botea et al., 2018; Bureau of Statistics, 2019a and 2019b). With internal migration (rural–urban migration) also identified as a contributory factor to population increase in lowland areas and urban centres like the capital city of Maseru, primarily due to the growth of the garment industry (Seyoum, 2007; Ansell et al., 2015; Government of Lesotho, 2018a), it is envisaged that the impact of environmental degradation, drought and water scarcity will further change mobility patterns in the country (Maro, 2011; Olutayo, 2012). The Government has also recognized in the NCCP that climate change–related migration could trigger conflicts and amplify political problems (LMS, 2017a). As such, the Government acknowledges that carefully planned and proactive migration, protection and assistance to vulnerable populations could enhance effective adaptation to climate change impacts and environmental degradation in promoting resilience and sustainable development in Lesotho.

Given the long history of Basotho labour migration to South Africa and other neighbouring countries, reintegration of returnees remains a key aspect to facilitate climate adaptation, resilience and inclusive growth in Lesotho (Mensah and Naidoo, 2011; Cobbe, 2012; IOM, 2019b). This has become necessary in view of the fact that restructuring and challenges in the gold mining sector, as well as radical sociopolitical

³ Interview with Agriculture officer, Sekameng Community Council in Mafeteng district, IOM, June 2021.

⁴ Interview with vocational training centre, Mohale's Hoek, IOM, February 2021.

⁵ Of ages between 20 and 39 years, constituting 62.6 per cent of all Lesotho emigrants (see Bureau of Statistics, 2016:154).

changes in post-apartheid South Africa have led to the loss of jobs and retrenchment of Basotho migrants and workers (Boehm, 2005; Maphosa and Morojele, 2013; Makhetha, 2020).

Available estimates, for instance, suggest that job cuts in the mining industry saw the significant decline of Basotho mineworkers from little over 127,000 in 1990 to just around 43,000 by the close of 2010 (Mensah, 2012; Cobbe, 2012). However, given the widespread effect of the COVID-19 pandemic on national economies and the livelihood activities of migrants (internal and international), the impact of climate change and environmental degradation will have adverse implications for returnees and potential for sustainable reintegration in the country (IOM/Skillshare, 2020). A recent assessment of COVID-19 impact on Lesotho reported that an estimated 93,000 Basotho labour migrants (including mine and contract workers) from South Africa had returned to the country (IPC, 2020; IOM/Skillshare 2020). The majority of these returnees attributed their return to lockdown measures (81%), while many others reported job losses (62%), lockdown guidelines (17%) and lack of food (5%) as reasons for their return (IPC, 2020). A major impact of the retrenchment, loss of jobs and return of migrants have been a slump in remittance flows to rural households, decline in household income and acute food insecurity (ibid.).

For migrants returning from abroad or from urban to rural areas, the impact of climate change and environmental degradation could hamper their successful reintegration and thereby the potential to contribute to climate resilience, agricultural production and sustainable development in the country (Molefe, 2009; Morojele and Maphosa, 2013). Aside from the influx of Chinese and other African immigrants, studies have also revealed the desire and plans of Basotho professionals and highly skilled migrants to return to the country (see Cobbe, 2012; Hanisch, 2013; Abadura et al., 2014). Despite the growing trend and number of semi- and low-skilled returnees from South Africa, the important issues of return and reintegration of migrants into the Lesotho labour market have not been given much attention in migration and climate adaptation policy frameworks.

Aside from the existing (im)migration legislations, institutional and governance frameworks, the draft Lesotho Migration and Development Policy (2021) serves to provide the framework in addressing challenges and identify opportunities related to migration and socioeconomic development in the country (Government of Lesotho, 2021). As part of its 16 thematic areas, the policy identifies inter alia, labour migration, internal migration and access to social security benefits for migrants and their dependants, as key elements to promoting resilience and improving socioeconomic well-being. While the issue of migration data management has been identified as key to informed policy and planning, the draft Migration and Development Policy is not explicit on how the issue of climate and environmental change-related mobility could be addressed. Given that the Lesotho NCCP looks to facilitate migration as an adaptation strategy to climate change, there is the need to integrate climate

and environmental change dimensions into reintegration programmes and climate and national development frameworks (LMS, 2017a). This would contribute to promoting resilience, equal opportunities, alternative livelihood programmes in the green economy, food security, stability, and development in the country.

1.2. Scope of this study

As the United Nations Migration Agency, IOM recognizes the enormity of the impact and challenges that climate change, environmental degradation and related natural disasters pose to countries and societies across the globe (IOM, 2021b). Through the lens of human security, IOM is committed to putting vulnerable people at the centre of its responses to climate and environmental change pressures. Most importantly, IOM emphasizes that well-managed migration can enhance safe and regular migration, as well as provide opportunities for the adaptation of people to climate and environmental change risks and impacts.

To this end, IOM's Institutional Strategy on Migration, Environment and Climate Change (MECC) 2021–2030 outlines its vision to “support States in their efforts to achieve orderly, safe, responsible, and regular international migration and to ensure that all people on the move and those internally displaced by the adverse impacts of climate change, environmental degradation, and disasters due to natural hazards, are assisted and protected” (IOM, 2021b:2). Underpinned by six guiding principles,⁶ and in line with the objectives of other international policy frameworks,⁷ the MECC Strategy is aimed at guiding IOM in strengthening its capacity to develop and implement a comprehensive, evidence- and rights-based approach to addressing challenges posed by environmental degradation, climate change and disasters due to natural hazards, for the benefit of migrants and societies (ibid.). The goal is to support States, migrants and other stakeholders to develop evidence-based policies and programmes that are effective and innovative for the well-being of migrants and societies.

1.3. Study objective and research questions

This study has been conducted as part of the IOM research project “Mainstreaming Environmental Dimensions in Integration, Reintegration and Relocation Initiatives in Lesotho and Mauritius”. With support from the IOM Development Fund, the

⁶ These six guiding principles include the following: (a) committing to a rights-based approach; (b) promoting an innovative and effective approach to migration governance and practice; (c) adopting a gender-responsive approach; (d) implementing a migrant-centred and inclusive approach to enhance positive outcomes; (e) promoting a human security approach; and (f) supporting policy coherence and enhancing partnerships.

⁷ Such as the following: (a) 2030 Agenda on Sustainable Development; (b) Paris Agreement on Climate Change; (c) Global Compact for Safe, Orderly and Regular Migration; (d) Sendai Framework for Disaster Risk Reduction; and (e) Nansen Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change.

overall objective of this research project is to explore the interlinkages between environment, climate change and migration in Lesotho and Mauritius with the aim of contributing to the sustainability of integration, reintegration and planned relocation as adaptation strategies to climate change in a gender-sensitive manner. The project is being implemented under the auspices of the IOM Southern Africa Regional Office, and IOM Lesotho and IOM Mauritius.

In the context of Lesotho, the study is guided by the following four broad research questions:

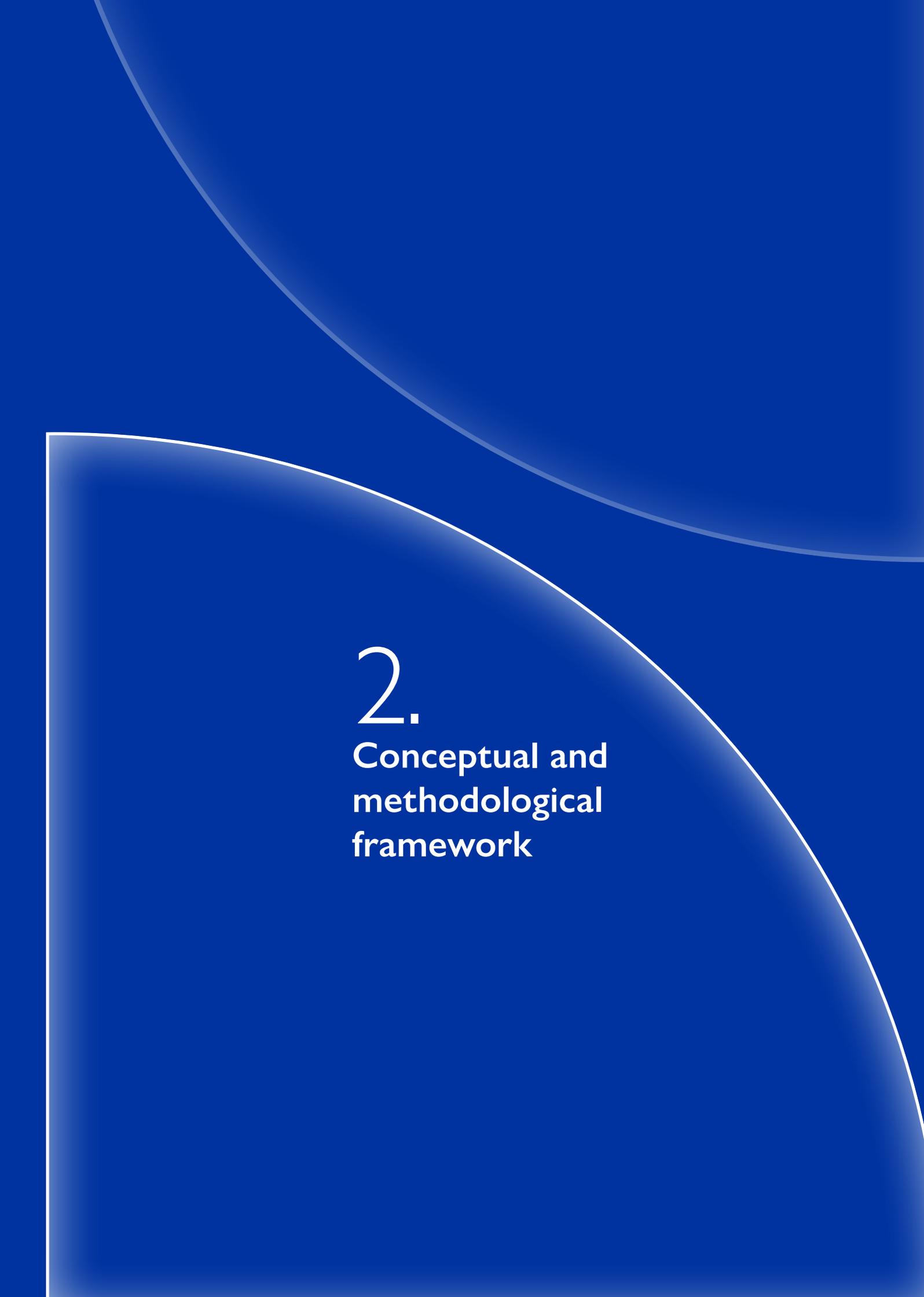
- (a) How does climate change and related environmental degradation impact migration and reintegration in Lesotho?
- (b) What do returnees and internal migrants perceive as their immediate and longer-term needs to become resilient to current and predicted climate change impacts?
- (c) What are the existing best practices in terms of schemes, programmes and policies that support the adaptation of returning workers to climate change and environmental degradation, as well as support the integration of incoming labour migrants to local or national labour market in Lesotho?
- (d) What policy and programming recommendations can support the sustainable reintegration of returnees and internal migrants, including populations at risk, that have immediate and long-term positive impacts on both the local communities and the environment?

1.4. Rationale of the study

As already manifesting in many parts of Southern Africa, for instance, severe droughts, windstorms, land degradation, heavy rainfall and snowstorms are adversely affecting agriculture production in Lesotho (Government of Lesotho, 2018a). Besides climate and environmental change impact on agricultural productivity, the decline in flow of migrant remittances to rural households have contributed to acute food insecurity and increasing poverty across districts (IOM/Skillshare, 2020; Mensah, 2012; IPC, 2020 and 2022). These challenges cumulatively contribute to driving the internal migration of people from rural to urban areas in pursuit of non-farm jobs in the garment industry and in other sectors. Besides these challenges, the increase in return migration to rural communities in the face of climate and environmental change, and general lack of economic opportunities would undermine the potential for sustainable reintegration of returnees for inclusive growth, poverty reduction and prosperity in Lesotho.

It is thus within the remit of these challenges that this study examines the impact of climate and environmental change on migration, return and (re)integration in Lesotho. Based on these findings, the study formulates recommendations to facilitate the mainstreaming of climate change and related migration into (re)integration and

national development programmes. This would facilitate sustainable reintegration, poverty reduction, inclusive growth and socioeconomic well-being in Lesotho. It is envisaged that the evidence collected on the aforementioned issues would contribute to informing policymakers – especially the Ministries of Environment, Home Affairs, Labour, and Gender, Youth, Sports and Recreation, as well as relevant government agencies and stakeholders – in designing and adapting policies and programmes on integration, reintegration and planned relocation to more sustainably support internal and international migrants, returnees and populations who may be vulnerable to environment and climate change.

The background is a solid blue color with several white, curved, overlapping shapes that create a sense of depth and movement. The shapes are primarily in the upper and right portions of the frame, with one large shape curving from the top left towards the bottom right.

2.

Conceptual and methodological framework

2.1. Conceptual framework: Understanding the environmental change–human mobility nexus and outcomes

The impact of environmental factors as drivers of human mobility has long been an important theme of scientific inquiry and theorization (Piguet, 2013; Flavell et al., 2020). Earlier classical migration theories generally focused on trying to explain the influence of environmental factors, as well as scarcity and spatial distribution of natural resources in shaping patterns of human migration (Piguet, 2011). However, the theorization of migration has since evolved with the increasing shift to considering different parameters in understanding and effectively addressing the impact of ongoing environmental change on human migration (Piguet, 2011; Ionesco et al., 2017).

Much recent attention to DRR and climate change adaptation policy has rekindled efforts to mainstream the human mobility dimensions of climate and disaster impact in political, development and climate action (Mercer, 2010; Wilkinson et al., 2016; IOM, 2018). The calls to address climate change impacts on human mobility were perhaps made more cogent in paragraph 14(f) of the UNFCCC 2010 Cancun Adaptation Framework and the corresponding evolution of the national adaptation plans process stipulated under decision 5/CP.17 of UNFCCC COP17 in Durban, South Africa (UNFCCC, 2011 and 2012). At the global level, some relative progress has been made in highlighting the impact of climate change and environmental degradation on human mobility in international migration, climate action and development policy frameworks⁸ (IOM, 2018; Clement et al., 2021).

Following the creation of the Climate Change and Displacement Facility during the UNFCCC COP21 in Paris, the Task Force on Displacement was created in the context of the Warsaw International Mechanism for Loss and Damage (UNFCCC, 2013). This Task Force on Displacement was tasked to make recommendations that will provide the framework to help address the negative impacts of climate change. The set of recommendations that emerged from the work of the Task Force on Displacement were subsequently adopted as part of the proceedings of UNFCCC COP24 in Katowice (UNFCCC, n.d.). As outlined in Decision 10/CP.24, the recommendations as presented in the report by the Executive Committee of the Warsaw International Mechanism for Loss and Damage specifically spelled out (in paragraph 2(g/ii)) the need to “enhance research, data collection, risk analysis and sharing of information to better map, understand and manage human mobility related to the adverse impacts of climate change in a manner that includes the participation of communities affected and at risk of displacement related to the adverse impacts of climate change” (UNFCCC, 2019:43).

In the context of these ongoing efforts, and to provide some clarity to understanding human mobility in the context of climate change, the United Nations Advisory

⁸ Such as the Sendai Framework for Disaster Risk Reduction (2015–2030), Nansen Initiative, Global Platform for Disaster Risk Reduction (2015–2030), Global Compact for Migration and SDGs.)

Group on Climate Change and Human Mobility (2014) has distinguished between three types of human mobility in the context of climate change, namely migration, displacement and planned relocation (see Text box 1).

Text box 1. Human mobility in the context of climate change

Migration describes movements that are voluntary with the decision often influenced by complex and multiple drivers (Black et al., 2013; Warner et al., 2013).

Displacement refers to situations where people are forced to leave their usual place of abode due to the severity or impact of the risk. Displacement and migration can take place within a country or across borders (see Afifi et al., 2015).

Planned relocation entails the planned relocation or conscious resettlement of a vulnerable community to reduce or mitigate any potential climatic risks. Relocation can be voluntary or forced, and it is most often initiated, planned and supervised by the public authorities although the processes may be initiated by the communities under threat (McAdam and Ferris, 2015; Melde et al., 2017).

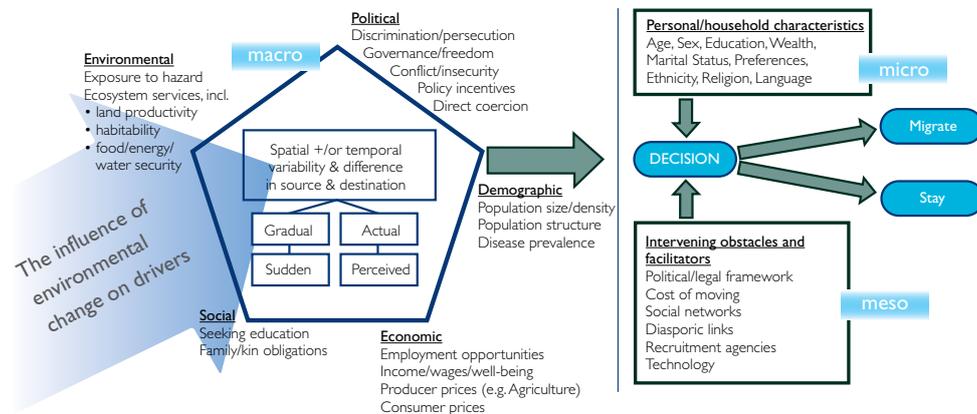
Source: Authors' development based on the United Nations Advisory Group on Climate Change and Human Mobility (2014:3).

This distinction between the different types of human mobility has undoubtedly contributed to enhancing conceptual clarity and in designing strategies at addressing the mobility dimensions of climate change and natural disasters (Wilkinson et al., 2016; Bower and Weerasinghe, 2021). On the other hand, the distinction may further be seen as lending some credence to the fact that a host of complex and multiple factors interact to drive mobility in the face of environmental and climate change risks (Black et al., 2011; Warner et al., 2013; Ionesco et al., 2017). This thus underscores the need for a better appreciation and framework that recognizes and allows for the identification of pathways to effectively address the complexity of migration processes in the context of climatic and environmental changes. In this regard, the Foresight (2011) conceptual framework provides a comprehensive overview in understanding mobility decision-making and outcomes in the context of environmental change.

As illustrated in Figure 2, the Foresight migration framework clarifies that environmental change affects migration or can precipitate movement by influencing existing drivers. In this light, it should be noted that climate change and environmental degradation may both precipitate or prevent migration. The framework posits that the mere existence of migration drivers does not necessarily translate into actual movement, but that the decision or likelihood that migration will take place or not is influenced by existing intervening or institutional factors (see Figure 2). According to the Foresight approach, any mobility outcomes (including displacement and the

decision to stay or being unable to leave) are influenced by a multiplicity of complex interrelated factors operating at the macro (social, economic, environmental and political), meso (mostly intervening obstacles and facilitators) and micro (personal and household characteristics) levels (Foresight, 2011). What this means is that vulnerability or exposure to environmental risks does not necessarily translate into migration. While human agency is at the core of mobility decision-making and outcomes, other intervening factors interact to determine whether migration will take place or not.

Figure 2. Foresight migration decision framework



Source: Foresight, 2011:12.

The broad approach of the Foresight framework in defining the relationship between environmental change and migration has allowed for a better appreciation of the ways in which different mobility drivers interact, and with environmental change to precipitate migration. This also means that the decision to stay or move in the face of climate and environmental risks is inherently contextual. With the explanation advanced, it may be seen that the framework has not only avoided the pitfall of making predictions on the future numbers of environmentally related migrants but advocates a broader policy approach to addressing the series of different outcomes and impacts as against a focus on seeking to prevent or restrict the number of people who move. Hence, policy should look to tap into the benefits of (planned) migration in enhancing adaptation and long-term resilience to climate and environmental change impact (ibid.).

The Foresight framework seems to endorse "spatial planning" over measures of planned relocation because of its pitfalls as a response to climate and environmental change risks. Notwithstanding this seeming endorsement, planned relocation has remained an important aspect of both policy and scientific discussion in addressing climate change and disaster impact (Bower and Weerasinghe, 2021). The general recognition in both policy and scientific circles is that migration presents opportunities to facilitate adaptation, environmental change and long-term climate resilience through effective planning and management (Melde et al., 2017).

2.2. Migration as adaptation to climate and environmental change

Most often, climate change–related migration happens within national borders or cross-border to neighbouring countries (Waldinger, 2015; Cubie, 2017; Ionesco et al., 2017). Despite ongoing debates and reservations on the magnitude of people who may be on the move due to environmental factors (Gemenne, 2011; Ionesco et al., 2017), there are growing concerns at both national and international levels that the impact of ongoing climate change and environmental degradation on socioecological systems could trigger the increase in migration and displacement of people across the globe in the coming decades (Rigaud et al., 2018). Yet the potential of migration as an adaptation strategy to climate and environmental change impact has continued to gain prominence in academic and policy discussions (Black et al., 2011; Afifi et al., 2015; Schraven et al., 2021). The increasing recognition of migration as an adaptation strategy is also partly informed by the growing evidence that migration and planned relocation/resettlement could serve to facilitate climate change adaptation in the short to long term in rural communities (Melde et al., 2017; Jha et al., 2017).

Nonetheless, recent empirical studies have been critical about the ongoing simplistic and positive narrative on the efficacy of migration as an adaptation strategy to climate change (Gemenne and Blocher, 2017; Guodaar et al., 2020; Luetz and Merson, 2020; Vinke et al., 2020). The criticism being that the narrow framing largely discounts or neglects the forced dimensions of climate- or environmental-related migration and other complex limiting socioeconomic and spatial factors, and instead optimistically project the potential benefits, which when well-managed could enhance climate adaptation (Lietaer and Durand-Delacre, 2020; Vinke et al., 2021).

In some instances, migration has been considered as an erosive and “maladaptive” phenomenon that rather exacerbates the dire situation of affected households or communities through labour shortages and food insecurity, rather than improving socioeconomic well-being (Warner and Afifi, 2014; Jacobson et al., 2019). Another shortcoming is that the current framing narrowly focuses on persons who have the possibility to leave without paying attention to the persons who may be trapped and unable to migrate because of other challenges or even climate barriers (Sakdapolrak et al., 2016). Meanwhile planned relocation, which is another dimension of human mobility, may have positive outcomes as an adaptation strategy in short to medium term but can be blighted by maladaptive consequences in the longer term (see Foresight, 2011; Arnall, 2019; Bower and Weerasinghe, 2021).

While the criticisms and divergent perspectives will in no doubt serve to further strengthen the conceptualization of the migration as climate adaptation debate, it is the case that circular mobility is a common feature of migration linked to the effects of climate change and environmental degradation (Cattaneo et al., 2019). In the context of the climate–mobility nexus, it is very common for migrants to leave

their households that have been affected by the adverse effects of ecological change, to work for some time – the period might range from several months up to several years – and return to their homesteads, which might happen either on recurring basis or permanently (Henry et al., 2004; Nielsen, 2019). Migrants who decide to return to areas that do not have jobs to match their skills or communities that are highly vulnerable to natural hazards or facing severe environmental degradation, may find it difficult to re-establish or rebuild sustainable livelihoods upon return to their community of origin (Mensah and Naidoo, 2011; Morojele and Maphosa, 2013; Dziva and Kusenu, 2013).

2.3. Migration, return and (re)integration

The issue of sustainable migrant (re)integration has increasingly become topical in policy discussion and initiatives relating to return migration and migration management (IOM, 2017). Reintegration⁹ has become necessary in view of the growing emphasis on instituting measures to help minimize or address environmental and structural factors that tend to force people to leave their communities, and facilitate the sustainable reintegration of returnees (IOM, 2020). The call for sustainable reintegration of returnees is also aligned with global frameworks, such as the 2030 Agenda for Sustainable Development (SDGs), Global Compact for Migration and Sendai Framework for Disaster Risk Reduction. While SDG 10.7 and the 2015 Sendai Framework respectively focus on promoting safe and regular migration and DRR for resilient communities/countries (United Nations, 2015; United Nations Department of Economic and Social Affairs, 2020), Objective 21 of the Global Compact for Migration specifically details the need for countries to “cooperate in facilitating safe and dignified return and readmission, as well as sustainable reintegration” (United Nations, 2018:26).

In the debates on the meaning of mobility processes regarding the social resilience of a household and its adaptive capacities, return migration and reintegration are often linked to monetary or in-kind remittances like food, which in turn might increase the households’ potential to adapt to the adverse effects of climate change and environmental degradation (Barnett and Webber, 2010; Scheffran et al., 2012; Milan et al., 2016). However, in some settings, return migration might also increase socioeconomic hardships, pressure on scarce natural resources, social services and environmental problems such as soil degradation (Gini, 2011; Dziva and Kusenu, 2013; Mpandeli et al., 2020).

As already highlighted, IOM is actively promoting a more positive and balanced view of migration, acknowledging human mobility as a beneficial adaptation strategy to environmental pressures since the early 2000s (Laczko and Aghazarm, 2009; Ionesco et al., 2017). As part of its three strategic objectives set out in its Strategy on MECC

⁹ Defined as “the reinsertion of a returning migrant into the social structures of his or her country of origin or country of nationality” (IOM, 2019a:177).

(2021–2030), for example, IOM outlines its mandate as follows: (a) “we develop solutions for people to move” by managing migration in the context of climate change, environmental degradation and disasters due to natural hazards; (b) “we develop solutions for people on the move” by assisting and protecting migrants and displaced persons in the context of climate change, environmental degradation and disasters due to natural hazards; and (c) “we develop solutions for people to stay” by making migration a choice through building resilience and addressing the adverse climatic and environmental drivers that compel people to move (IOM, 2021b:17).

Besides ongoing assisted and voluntary return programmes that have emerged as part of broader migration management schemes, return migration and reintegration of migrants are of high significance in the context of climate change–related mobility (IOM, 2020). This is because sustainable reintegration of returnees has important social, economic or ecological implications (IOM, 2017). In this light, reintegration may then be considered to be sustainable when returnees are economically empowered, self-sufficient, well established in their communities of return and have the psychologically sound mind to be able to make informed decisions and cope with drivers that may be pushing them to (re)migrate (IOM, 2019b).

As exemplified in the cases of returning Basotho mineworkers and Zimbabwean youths from South Africa, returnees may not find jobs that match their skills set or may be reluctant to take up agrarian livelihoods that may not generate the expectant incomes (Dziva and Kusenu, 2013; Mensah and Naidoo, 2011). In such instances, reintegration may be unsuccessful and thus result in high levels of unemployment, poverty and social disorder (Gini, 2011). Morojele and Maphosa (2013) recount, for instance, in the case of returnee Basotho miners, that many found it difficult to reintegrate upon return. This was because of their low educational attainment, insufficient entrepreneurial training and non-transferability of the skills that had been acquired during the period of working in the mines in South Africa. Many reportedly resorted to agricultural production, while others operated small spaza (general dealers) businesses with retrenchment packages they returned with as a means of survival. However, the challenges and lack of opportunities meant that many had become worse off hitherto their migration and as such expressing the desire to re-migrate to South Africa (ibid.).

Given the impact of the COVID-19 pandemic and climate change on national economies, many Basotho migrants have lost their livelihoods and have been stranded in various places of destination (Mukumbang et al., 2020; United Nations Development Programme, 2020; Humphrey, 2021). Having already been observed in the case of Lesotho and other countries in Southern Africa, the possibility is that some of these stranded migrants may be looking to return to their countries and communities. Hence, efforts to facilitate successful (re)integration of returnees and affected/displaced populations would be key in contributing to sustainable development, inclusive growth and enhancing climate resilience in especially

vulnerable communities. As shown in Senegal, mainstreaming issues of climate and environmental change into reintegration programmes could provide opportunities for reskilling, skills development and transfer, as well as possibilities of green, sustainable and decent jobs in both the green and blue economies (IOM, 2019b; Dimé and Wade, 2019). This would facilitate sustainable and inclusive growth and to build back better and resilient societies (United Nations Environment Programme, 2021).

Lesotho is characterized as a migrant origin, transit and destination country, not only because of the size of its diaspora, but also due to the combination of in- and outmigration flows. But in view of its geographic characteristics and vulnerability to climate risks, it is envisaged that the impacts of environmental degradation and climate change will further amplify migration, as well as affect returnees. This will also influence the types of policies and support responses needed at the national level. For example, the Lesotho NSDP II recognizes the importance of mainstreaming the critical issues of climate change and the environment, with attention to youth, children, gender, disability and social protection across all sectors as catalyst to inclusive growth (Government of Lesotho, 2018a:68). So far, several policies and strategies aimed at mitigating and protecting the population from the adverse impacts of environmental and climate change have been developed. Yet translating the actions and strategies often outlined to address climate and environmental change is constrained by different challenges. Moreover, there is a seeming lack of synergy and coordination across ministries and other national agencies in adopting a more comprehensive approach to addressing the impact of climate and environmental change, and related impact on existing human mobility patterns in the country.

This study thus examines the aforementioned issues of focus to provide the evidence in facilitating the design and development of policies and conditions to support sustainable (re)integration, inclusive growth and climate resilience in Lesotho. Considering that most return migrants are often affected by climate change impact (drought), rampant cattle rustling and the lack of appropriate skills and capital to engage sustainable livelihoods, there have been efforts to identify alternative livelihood opportunities in the green economy with specific consideration for vulnerable groups like women and unaccompanied child migrants (see, for example, Ansell and van Blerk, 2004; van Blerk and Ansell, 2006). The hope is that the findings of this study will allow for a nuanced appreciation of the issues; and that the gender-sensitive policy recommendations and best practices outlined will support efforts at comprehensively addressing climate/environmental change-related migration, reintegration, as well as integration of labour (im)migrants in Lesotho.

After the foregoing background and elaborating the conceptual framework, as well as the research methodology used for this study in the section below, the rest of this report is further organized into five sections. The first section entails an analysis

of the existing national governance frameworks and legislation on climate change, environment, disaster and human mobility nexus, and reintegration in Lesotho. Afterwards, the discussion delves into the questions of climate change, hazards and the impact on populations and livelihoods. This section also details the variety of different responses that vulnerable populations make in the face of climate change impact across rural communities in Lesotho. Furthermore, the section examines the questions of human mobility, return and reintegration in rural communities.

In the third section, the discussion narrows down to examine the nature and effect of the planned relocation/resettlement exercises and the effects on local communities. It then delves into the perspectives of research participants on the potential of planned relocation/resettlement in enhancing long-term climate adaptation, resilience and sustainable reintegration of returning migrants. With the fourth section, the discussion highlights the proposed measures from research participants to enhance climate change adaptation. The study then concludes and outlines recommendations in addressing climate-related migration, climate adaptation, resilience and sustainable (re)integration of returning and labour migrants in Lesotho. As a prelude to discussing the study findings, the study methodology is detailed in the following section.

2.4. Research design and approach

2.4.1. Methodological approach

To effectively delve into the aforementioned focal issues in Lesotho, this study adopted a mixed methodological approach. This involved the collection of data through quantitative and qualitative methods. Specifically, the study conducted stakeholder surveys through the administration of questionnaires to key stakeholders in Lesotho. The aim was to solicit their expert knowledge and appreciate what was already being done on the themes of focus. The qualitative interviews were mainly focused on collecting deep insights from the perspectives of vulnerable populations and returning migrants who are affected by the impacts of climate/environmental change and related natural disasters.

The underlying reason for adopting a mixed approach to the study was to allow for adequate collection of data and also solicit the emic perspectives, as well as gain much more in-depth and nuanced understanding on the complex issues of migration, climate change, environmental degradation, return and sustainable reintegration (Hennink et al., 2020). The triangulation of methods allowed for the in-depth discussion and collection of data through expert and key informant interviews, as well as surveys and FGDs with key stakeholders (public and private sector), vulnerable populations and migrants.

2.4.2. Sampling approach and study areas

The field data collection for this study report was done in two phases. The first phase of the data collection entailed the extensive desk-based review of existing literature, text (content) analysis of documents, policies and strategic initiatives on issues of climate change, as well as existing national migration, climate and development policy frameworks. This helped the research team to have an appreciation of what already exists in terms of information on the themes and to identify gaps that could further be examined during the design and data collection process. As part of the desk review, an identification and mapping of relevant national agencies and stakeholders working on the themes of focus was also done. In addition to the desk-based mapping, the expert knowledge of the national consultant on the local context, as well as the Lesotho Vulnerability Assessment and the Seasonal Livelihood Programme and Integrated Context Analysis of the WFP provided some guidance in selecting relevant stakeholders and identifying vulnerable areas for the research (WFP, 2015; IOM/Skillshare, 2020).

Based on the stakeholder mapping, a list of relevant stakeholders from across the public and private sectors, international organizations and civil societies was compiled. The inception workshop that was organized to brief stakeholders in Lesotho at the start of the research project also provided the opportunity to further identify and solicit the support of stakeholders. The presence of different national agencies, actors and relevant stakeholders allowed for engagement to further explore and identify innovative ways and aspects that could be examined as part of the study.

The list of stakeholders, which was compiled from the mapping and inception workshop, somewhat served as a sampling frame to select research participants. But with the selection of the key stakeholders and key informants, the study employed non-probability sampling techniques (judgemental and snowball sampling) to select research participants for data collection. Although the sample selection was non-probabilistic, the research made a conscious effort to ensure a balanced coverage of the different stakeholders and key informants who were drawn from “vulnerable populations”/migrants. The underlying motive for this consideration was to draw diverse and rich insights from different perspectives. Hence, in collaboration with the national consultant and under the guidance of the IOM Lesotho project officer, a purposive sampling was applied to select a total of 30 key stakeholders for data collection. However, 25 key stakeholders received questionnaires as part of the data collection (see Annex 1 for the full list). These key stakeholders were perceived to be actively working on issues of migration, environment, climate change and related issues in Lesotho and hence their selection.

Based on the LVAC reports (2017, 2019) and the much recent IPC Assessment report (2020, 2022), the districts of Mofale's Hoek, Quthing, Mafeteng and Qacha's Nek are identified as the most vulnerable areas to the impacts of climate change and environmental degradation, food insecurity and migration.¹⁰ Based on the

¹⁰ Based on IPC (see LVAC, 2017:64, 79; IPC, 2020).

insights from these reports and also the local knowledge of the national consultant, key informants were identified through purposive and snowball sampling across vulnerable and migrant-sending local communities in these selected districts (see Figure 2).

To facilitate the collection of data in communities across the selected districts, it was important to first make community entry. But due to the risks of COVID-19 and the timeline of the study, there was not much time to conduct transect walks and engagements to allow for interaction, build rapport and enhance entry into the local communities. Thus, purposive sampling was employed to first identify and interview one person in the communities visited. This person then recommended someone, and for the research team to identify more key informants for interviews

2.4.3. Data collection and characteristics of research participants

The second phase of this study entailed actual data collection, analysis, consultations with the IOM team and drafting of the study report. Altogether, two sets of questionnaires were designed to cater for the different research participants that were earmarked for data collection in Lesotho (see Annex 1). The underlying reason to deploy distinct questionnaires was to allow for varied perspectives and wider coverage on the issues of focus. In this regard, one of the questionnaires (survey) was targeted at the key stakeholders. These included government officials, international organizations, academia and CSOs working on the themes of focus in Lesotho.

The other questionnaire (interview guide) was focused on research participants considered as vulnerable populations and migrants across the communities in the selected districts. In addition to these two distinct sets of questionnaires, a generic FGD guide was developed for both stakeholders and vulnerable populations. The questions for the FGDs sought to further probe the issues of focus and clarify issues that had emerged during the field data collection and policy analysis. Although the FGD guide was somewhat generic, some of the questions were slightly changed for the key stakeholder FGD.

Both questionnaires were mainly semi-structured, consisting of predefined close-ended and open-ended questions that gave research participants the flexibility to give wide-ranging views on the issues being examined. The questionnaires were structured along the four broad research questions outlined in this study. Although two distinct questionnaires were deployed for data collection, the questions did not differ much. All the same, the research team made conscious efforts to allow for disaggregation and gender considerations during the design of the questionnaires. In addition to thoroughly reviewing questionnaires in close collaboration with the IOM project team, a pre-test was done in the field. This helped to identify some limitations and further refine the questionnaires.

The field data collection and processing spanned January and March 2022. For the key stakeholder surveys (25), the initial plan was to conduct one-on-one interviews. The

motive was that this would help to further clarify any issues during the interviews. However, due to the possibility to directly fill out information on the questionnaire, and also due to the COVID-19 protocols, many opted to directly do so themselves and then return the completed forms. In addition to the key stakeholders, expert interviews were held with two selected key national stakeholders (Department of Gender under the Ministry of Gender, Youth, Sports and Recreation, and Ministry of Home Affairs). These complementary expert interviews sought to further discuss and also clarify some important issues that had been identified as part of the analysis of existing policy frameworks relating to gender and climate change mainstreaming, migration, return and protection of vulnerable groups in Lesotho.

On the part of the vulnerable populations and migrants, a total of 21 in-depth interviews were conducted with key informants consisting of males and females from across the four selected districts (see Table 1). Detailed characteristics of the different categories are further elaborated in Annex 1. A total of three FGDs were also conducted as part of this study. These consisted of two FGDs with selected “vulnerable persons” and the other with key stakeholders (see Table 1). The first FGD for vulnerable persons was conducted in Mafeteng at the office premises of the District Administrator. The second FGD for vulnerable persons was conducted at the Institute of Extra Mural Studies in Maseru. The FGD for the stakeholders was held at the Reitumetse Guest House in Maseru. This consisted of representatives from across national agencies, ministries, international organizations and civil society (see Table 1). The selection of participants for the three different FGDs were drawn during the data collection process in the field. With the consent of all participants, all the FGDs were audio-recorded with the aid of a digital audio recorder for transcription.

Table 1. Composition of focus group discussions and in-depth interviews (Vulnerable persons/migrants)

In-depth interviews			
District	Sex		Village and community council
	Male	Female	
Mafeteng	4	11	Lecoop, Urban Council; Tajane; Ha Leburu; Ts'akholo, Metsi-Maholo Community Council; Thabana-Morena, Makoabating Community Council; Motse-Mocha, Qibing Community Council; Ha Ramokhele; Ha Maphoka; Mafeteng; Makhanyeng; Ha Ramotoho; Ha Lebenkele
Mohale's Hoek	2	-	Ha Maphohloane
Quthing	-	2	Aiskop, Tele
Qacha's Nek	2	-	Ha Belebese, Tsoelikane Community Council; Ha Semenyane, Tsoelikane Community Council
Total	8	13	

Focus group discussion				
Category	FGD	Sex		Area (District)/Composition
		Male	Female	
Vulnerable population/migrants	FGD 1	4	7	Mafeteng
	FGD 2	3	4	Qacha's Nek, Quthing, Mohale's Hoek; Mafeteng
Stakeholders	FGD	5	4	LMS; Department of Environment; Ministry of Home Affairs,- Department of Immigration; Ministry of Local Government and Chieftainship; Bureau of Statistics; Lesotho Highlands Development Authority; Geography and Environment Movement; Food and Agriculture Organization of the United Nations

Source: Authors' field work, 2022.

The FGD for the stakeholders was held in English, while the other two FGDs for key informants within the vulnerable populations/migrants were done in Sesotho. On the average, FGDs for vulnerable groups lasted 1.5 hours, while that of the key stakeholders was 2 hours and 48 minutes. The national consultant acted as moderator for all FGDs and was supported by research assistants in taking notes. The consultant's knowledge of the issues being discussed, Sesotho language capabilities as a Mosotho, as well as experience as a researcher helped in elaborating the issues and in moderating discussions. This helped to further probe and bring different perspectives on some of the issues that had emerged during stakeholder surveys and interviews with vulnerable persons.

2.4.4. Data processing and analysis

All the data collected were processed and checked for any issues that needed some clarification. Based on the two distinct questionnaires and nature of the questions, two Microsoft Excel data entry templates were developed. These templates were designed to separately enter data collected from key stakeholders and informants within the vulnerable populations/migrants. After the initial trial of the template, several adjustments were made to allow for effective data entry. The data (both quantitative and qualitative) were then directly entered into the Excel template for analysis.

The audio recordings were transcribed verbatim for analysis. All discussions in Sesotho were directly translated into English and transcribed. The qualitative data from the transcripts and those captured in the Excel template were manually sorted into a matrix based on the deductive codes already deduced from the themes as outlined in the research questions and Foresight framework. Nonetheless, in vivo

coding to draw insights from interview transcripts was done to also directly derive some themes from the research participants for analysis. As shown by the qualitative quotes, the qualitative data from both the in-depth interviews and FGDs provided complementary insights and further clarity to the issues examined as part of the study.

2.4.5. Ethical considerations and limitations of this study

Every research process also always raises questions of ethics. Ethical considerations in research often relate to the safety of research participants, the manner in which data was acquired, issues of morality, deception and generally making sure that the research will not in any way affect or cause harm to the subjects being studied (Punch, 2014). Ethical issues also border on the validity of the outcomes of the research; as in how far the issues being reported are accurate or reflective of what is on the ground. Other than these concerns, the power that researchers wield and their “positionality” can have significant implications for the findings.

Since this study also entails reporting and detailing the personal lives and circumstances of vulnerable people in rural communities, it was important to address the ethical issues pertaining to data collection and the whole research process. In this regard, the research team made it a point to be transparent in explaining the aim and purpose of the research. It was always also communicated to research participants that their participation was voluntary, and that they could decide to opt out at any time during the interview. Assurances were also given to them that all information collected was going to be anonymous and no names were going to be mentioned. This was followed up in making sure consent was always sought before audio recording. Recordings were also secured and transcripts were shared with only the research team and only for purposes of analysis.

At the start of the data collection phase, a consent form was designed where all persons were required to read and to sign (see Annex 2). This allowed for some level of guarantees in terms of the confidentiality of whatever was going to be discussed. During the period of the research, the weekly team meetings also allowed for not only critical reflexivity of the whole research process, but also of the research team and the personal biases that might evolve. This helped to maintain a good level of objectivity and also the integrity of the whole research process and findings. The transparency emanating from the open review process of the data analysis and reporting by both the research team and IOM team also ensured checks and helped to verify the issues being reported.

Other than the ethical considerations, a major limitation of the study is that the total number of research participants are quite limited. Ideally, the desire would have been to cover as many research participants and communities as possible, maybe all the 10 districts in Lesotho, and also to identify some Basotho diaspora for interviews in other countries. However, due to the limited scope of the study, this

was practically impossible. Because a host of issues were being covered as part of the study, several questions were asked that did not necessarily apply to the different research participants. This resulted in some participants not having any ideas on some of the issues being examined or just skipped some of the questions. Given that the data collection was also done during the COVID-19 pandemic, there was also the danger and fear of infection from both the research team and participants. This made it a bit difficult to access or get informants to interview.

Despite the limitations, the necessary measures were put in place to maintain the integrity and validity of this study. In view of the missing information emanating from the gaps in the completed questionnaires, more information was further sought through the complementary expert interviews that were conducted with key stakeholders. Also, an extensive literature review of empirical studies and analysis of existing policy frameworks were done to gain more insights and complement data that had been collected. In instances where a selected research participant could not be reached for any reason, the technique of “sampling by convenient replacement” was employed to replace or substitute for the missing or absent research participant (see Bernard, 2006:196).

As part of the data collection, an extensive analysis of existing climate, migration and development policy frameworks and legislation was conducted to ascertain in how far the issues of climate change, environmental degradation, human mobility and (re) integration are being addressed in Lesotho. The findings of the policy analysis are further elaborated in the following section.

3.

National governance frameworks of the climate/environmental change, disaster and human mobility nexus, and (re)integration in Lesotho

In addition to exploring migration governance at the national level, this section examines national policy and legal frameworks related to climate and environmental change, DRR and other topics of relevance (such as development and gender). This is mainly to ascertain in what ways the existing policies and governance frameworks address human mobility in the context of climate and other environmental changes, as well as provisions for the following: (a) promotion of gender equality; (b) sustainable (re)integration of returnees and internal migrants (including populations at risk); and (c) development of green projects. Among the 29 policies and legislations that have been identified in Lesotho, 15 acknowledge the linkages between climate change and/or environmental degradation, disasters and population movements; 20 raise gender equality concerns, and 6 refer to (re)integration and related issues (see Table 2).

Table 2. Policies and legislation related to migration, environment, disaster risk reduction and (re)integration in Lesotho

Governance sphere	Year	Policy and/or legislation	Acknowledgement of the climate and environmental change, disaster and human mobility nexus	References to (re) integration and related issues	References to gender and related issues	References to green jobs and/or projects
Migration	2021	National Migration and Development Policy ^a	Yes	Yes	Yes	No
	2020	National Diaspora Policy ^b	No	Yes	Yes	No
	2018	National Labour Migration Policy ^c	No	Yes	Yes	No
	1998	Passports and Travel Documents Act (No. 15 of 1998) ^d	No	No	No	No
	1971	Lesotho Citizenship Order (No. 16 of 1971) ^e	No	No	No	No
	1967	Lesotho Citizenship Act ^f	No	No	No	No
	1966	Aliens Control Act ^g	No	No	No	No
Environment	2019	RPF: Lesotho Renewable Energy and Energy Access Project ^h	Yes	No	Yes	No
	2015	National Action Programme in Natural Resource Management, Combating Desertification and Mitigating the Effects of Drought ⁱ	No	No	No	No

Governance sphere	Year	Policy and/or legislation	Acknowledgement of the climate and environmental change, disaster and human mobility nexus	References to (re) integration and related issues	References to gender and related issues	References to green jobs and/or projects
Environment	2015	National Mitigation and Preparedness Plan for Drought ^l	Yes	No	Yes	No
	2008	Environment Act (Act No. 10 of 2008) ^k	No	No	No	No
	2008	National Forestry Policy ^l	No	No	No	No
	2007	Lesotho Water and Sanitation Policy ^m	No	No	Yes	No
Climate change	2021	The Kingdom of Lesotho's Third National Communication on Climate Change ⁿ	Yes	No	Yes	No
	2019	Lesotho NSRF (2019–2030) ^o	Yes	Yes	Yes	No
	2018	Guidelines for the Integration of Climate Change in National, Sectoral and Local Policies, Strategies and Development Plans ^p	Yes	No	Yes	No
	2018	NCCP 2017–2027 ^q	Yes	No	Yes	No
	2017	Lesotho's NDC under the UNFCCC ^r	No	No	Yes	No
	2017	NCCPIS ^s	Yes	No	Yes	No
	2015	Lesotho's INDC ^t	No	No	Yes	No
	2013	Lesotho's Second National Communication under the UNFCCC ^u	Yes	No	Yes	No
	2007	NAPA ^v	Yes	No	Yes	No
	2000	National Report on Climate Change. First National Communication to the Conference of the Parties to the UNFCCC ^w	Yes	No	Yes	No

Governance sphere	Year	Policy and/or legislation	Acknowledgement of the climate and environmental change, disaster and human mobility nexus	References to (re) integration and related issues	References to gender and related issues	References to green jobs and/or projects
Disaster risk reduction	2011	NDRRP ^x	Yes	No	No	No
	1997	Disaster Management Act (Act No. 2 of 1997) ^y	Yes	No	No	No
	1988	Emergency Powers Order (Order No. 4 of 1988) ^z	Yes	No	No	No
Other policies and legislation of relevance	2018	Gender and Development Policy (2018–2030) ^{aa}	Yes	No	Yes	No
	2018	NSDP II 2018/19–2022/23 ^{bb}	Yes	No	Yes	No
	2016	Lesotho Food and Nutrition Policy ^{cc}	No	No	Yes	No
	2012	INDF ^{dd}	No	No	Yes	No
	2012	NSDP 2012/13–2016/17 ^{ee}	Yes	Yes	Yes	No
	2006	Poverty Reduction Strategy 2004/05–2006/07 ^{ff}	No	No	Yes	No
	2005	Lesotho Vision 2020 ^{gg}	No	No	Yes	No

Sources: Government of Lesotho (1966^f, 1968^g, 1971^e, 1988^z, 1997^y, 1998^d, 2005^{gg}, 2007^m, 2008a^k, 2008b^l, 2011^x, 2012a^{dd}, 2012b^{ee}, 2015aⁱ, 2015bⁱ, 2016^{cc}, 2018a^{bb}, 2018b^c, 2018c^{aa}, 2019a^h, 2019b^o, 2020^b, 2021^a); LMS (1997^y, 2000^w, 2011^v, 2013^u, 2017a^q, 2017b^r, 2017c^s, 2018^p, 2021ⁿ); DMA (2015); IMF, 2006^{ff}.

3.1. (Im)migration policies and legislation

At the national level, all issues related to (im)migration in Lesotho are governed by four main legislations and their subsequent amendments. These are as follows: (a) Aliens Control Act (1968); (b) Lesotho Citizenship Act (1967); (c) Lesotho Citizenship Order (No. 16 of 1971); and (d) Passports and Travel Documents Act (No. 15 of 1998).

Specifically, the Aliens Control Act (1966) regulates the authorization and/or restriction of entry, presence and sojourn of aliens into the national territory. It outlines regulations relating to indefinite and/or temporary residence, exemption

of distinguished visitors, cancellation of permits, ports of entry and departure, registration of aliens, among others (Government of Lesotho, 1968). Also, the Lesotho Citizenship Act (1967) and subsequent Citizenship Order (No. 16 of 1971) make provision for the acquisition, deprivation and renunciation of citizenship by nationals, specifying by what date those persons shall have done what is required by the national government in relation to dual citizenship and addressing related matters (Government of Lesotho, 1966; Government of Lesotho, 1971).

The Passports and Travel Documents Act (No. 15 of 1998) provides for the issuance and revocation of passports, enabling any individual to be granted with travel documents for purposes of travelling in or out of Lesotho (Government of Lesotho, 1988). However, none of these legislations make any provisions for the entry and regularization in the situation of persons who move in the context of climate and other environmental changes, nor references to the (re)integration of returnees or the need for gender equality. The national migration agenda has been silent on the intensification of mobility patterns due to climatic and/or environmental adversities until 2021, with the development of the draft National Migration and Development Policy.

3.2. Migration, (re)integration and gender

Two policies worth mentioning in this context are the National Labour Migration Policy (2018) and the National Diaspora Policy (2020). Although these policies do not explicitly address the human mobility–climate change–environmental degradation nexus, they have included relevant considerations related to the (re)integration of returnees and internal migrants, as well as the acknowledgement of women as a vulnerable group (also applicable to climate-induced migrants).

First, the National Labour Migration Policy considers the return and reintegration of migrant workers into the Lesotho labour market as a challenge due to the lack of a range of services to migrant workers that could ensure protection throughout the migration cycle, including positive return and reintegration into the labour market (Government of Lesotho, 2018b). The following priority activities were subsequently proposed to promote social welfare of migrant workers: (a) establishment of assistance schemes on financial education; (b) retraining; (c) development of comprehensive return and reintegration plans for migrant workers; and (d) assessment of the impacts of labour migration on children left behind (*ibid.*).

The National Diaspora Policy (Government of Lesotho, 2020), on the other hand, was developed to facilitate the engagement of Basotho diaspora for the development of Lesotho through their knowledge and skills. It calls for the formulation of a national strategy on the reintegration of returning nationals. By recognizing that the diaspora left Lesotho mainly because of economic reasons (such as insufficient

academic opportunities, lack of employment prospects and poor living conditions), the policy focuses on attracting and retaining skills in the country to contribute to the national development agenda (ibid.). Thus, the policy advocates for the following: (a) provision of business advice services; (b) supply of information on available jobs; (c) access to education opportunities; and (d) “the need for transparency around required skills and recruitment processes for government jobs” (ibid.:14).

Regarding the empowerment of women at the national level, both policies emphasize that gender inequality is a disadvantage to women in Lesotho, leading to limited professional development and job opportunities (if compared to male citizens) (ibid.:12). That is because women are more likely to be poor, unemployed and face gender-based violence from their male counterparts across the country, resulting in thousands of low-skilled female jobseekers (Government of Lesotho, 2018b:32).

More recently, the draft Lesotho National Migration and Development Policy (2021) is seen to align with the objectives of the Global Compact for Migration. The draft National Migration and Development Policy, which is still under consideration for validation and approval, aims to provide a basis for the coherent harnessing of migration for development in Lesotho. In addition to addressing the migration–development nexus policy gaps, it seeks to respond to the challenges related to the current migration crisis, such as population movements in the context of climate change and/or environmental degradation (Government of Lesotho, 2021). With a view to providing a framework for the implementation of migration and development strategies and actions for the national benefit, the policy has highlighted several key areas of strategic intervention, including the following: (a) “migration, environment and climate change”; (b) “return migration and reintegration of returnees, also due to COVID-19”; and (c) “migration and gender” (ibid.).

In regard to MECC, the draft policy acknowledges that the impact of changing climatic conditions will exacerbate existing environmental stresses (i.e. drought, land degradation and loss of biodiversity), and thereby undermine agricultural production and ultimately leading to internal displacement. Furthermore, the policy notes that about 71 per cent of the country’s population is involved in some form of agricultural activity, which means that climate change will further exacerbate poverty and related multidimensional vulnerabilities. To stem the adverse effects of climate change on mobility patterns in Lesotho, the policy calls for investments in climate change and DRR through a coordinated government response, as well as mainstreaming climate and disaster management in existing national plans that promote economic, human and social development (ibid.). To this end, the implementation of key strategies has subsequently been outlined (see Text box 2).

Text box 2. Key strategies related to migration, environment and climate change

- Implement early warning systems, invest in relevant technologies and capacity-building, and assist communities to conduct community-owned vulnerability and capacity analyses to facilitate multidimensional resilience-building programmes, also at household level, and to help prepare and implement such programmes, in order to avoid loss of developmental gains and support the development of affected communities.
- Procure and employ assistance and expertise provided by development partners and CSOs to implement national plans and strategies to respond to climate change and environmental degradation, to adjust such plans and strategies to changing scenarios, and to ensure that human mobility matters are integrated in key policy areas dealing with climate, environment and land, in a way that supports human, social and economic development.
- Address the impact of migratory movements caused by climate change and environmental degradation, including resettlement, integration into host communities and related responses.
- Support ongoing climate change research and invest in the availability of critical data to support preventive and mitigation measures, including humanitarian assistance responses.
- Invest in dedicated social protection responses, including social assistance, food support and appropriate insurance-based products as key development-oriented interventions.
- Address gender-based violence, child and adolescent protection challenges created by climate change effects.
- Conserve the environment and promote climate-smart agricultures and pro-poor production technologies, to increase productivity and food security.
- Implement/domesticate the African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa (Kampala Convention, 2009), the African Union Humanitarian Policy Framework of 2015, Common African Position on Climate Change, Africa Regional Strategy for Disaster Risk Reduction, the Sendai Framework for Disaster Risk Reduction 2015–2030 and the Climate Change Adaptation Strategy in SADC: a Strategy for the Water Sector.

Source: Government of Lesotho, 2021.

With respect to return migration and reintegration of returnees, the draft National Migration and Development Policy points out that until recently, there has been no approved policy and/or legislation to guide migrant workers' return and reintegration in Lesotho's labour market – and society – in an orderly and safe manner. The lack of a specific framework dealing with the topic was severely felt during the COVID-19 pandemic and its subsequent lockdowns, job losses and reduced remittance flows (Government of Lesotho, 2021). As such, investments in the following are thus

recommended through the establishment of specific strategies: (a) promoting well-managed return of migrants; (b) preventing further irregular migration; and (c) providing for effective reinsertion of returnees in the economy (see Text box 3).

Text box 3. Key strategies related to return migration and reintegration of returnees

- Enter into enhanced dialogue with South Africa to effectively implement safe and orderly return of Basotho irregularly present in South Africa, ideally to be provided for future Lesotho–South African bilateral labour agreements/arrangements.
- Prevent remigration via suitable return and reintegration and enhanced border management arrangements, bilaterally coordinated with South African authorities.
- Develop strategies and frameworks, and provide (socioeconomic, psychosocial, legal and orientation) services and (business and livelihood) support to ensure the meaningful integration of returned Basotho in the Lesotho economy, labour market and society, also through interventions facilitating social cohesion with host communities.
- Support returning Basotho migrant workers and their dependants in claiming social security benefits which accrued to them abroad and assist their inclusion into the Lesotho social security system.
- In accordance with the Global Compact for Safe, Orderly and Regular Migration (United Nations, 2018) objective in this context, ensure return migrant workers' equal access to social protection and supporting services, and utilize their entrepreneurship, skills and human capital; and address the needs of receiving communities, by including respective provisions in national and local development strategies, infrastructure planning, budget allocations and other relevant policy decisions and cooperating with local authorities and relevant stakeholders.
- Ensure a strengthened institutional and legal framework to facilitate the actions above and adopt a suitable return and reintegration policy framework.

Source: Government of Lesotho, 2021.

With reference to gender and migration, the draft National Migration Policy has identified various situations in which women are particularly affected by migration flows. It underscores the fact that migrant women are more exposed and vulnerable to the adverse effects of climate change. The recognition is thus that “formal equality, coupled with the lack of a formal migration policy which accommodates the gendered effect of migration, may nevertheless be an indication of a differential (and negative) impact on women” (Government of Lesotho, 2021:47). Hence, extended context- and gender-sensitive protection to migrant women or women affected by mobility patterns and/or climatic impacts is envisaged through a host of key strategies (see Text box 4).

Text box 4. Key strategies related to gender and migration

- Support further research into the special needs of women migrants and the impact of migration on gender, as well as household formation and livelihood strategies, to assist policymakers in developing gender-sensitive migration policies.
- Address direct and indirect gender discriminatory legal provisions and practices impacting on the migration experience of women.
- Ensure that women who are migrating or affected by migration are sufficiently accommodated in terms of the envisaged Lesotho contributory-based social security system, in the event that they have to temporarily exit the labour market in order to attend to family care needs.
- Provide appropriate pre-departure information to women prior to migration and extend support services at Lesotho foreign missions.
- Introduce appropriate family reunification measures in accordance with Lesotho's obligations under the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (United Nations, 1990).
- Adopt appropriate measures to enhance and ensure female migrant workers' access to Lesotho social security schemes and benefits in the event that they are not covered by the social security system of the host country, bearing in mind both the informal nature of cross-border economic activity of some female migrants and the fact that other (skilled) female migrants may be excluded from the social security system of the destination country.
- Negotiate bilateral frameworks with host countries to enhance access to the host country, its labour market, social security arrangements and benefits, and protection under the prevailing labour law regime.
- Provide gender-sensitive employment opportunities in major migrant-sending areas and in organized cross-border industrial, cooperative and market zones.

Source: Government of Lesotho, 2021.

In conclusion, the recent policies developed under the national migration agenda have made significant strides in galvanizing support to address human mobility in the context of climate change and/or environmental degradation, as well as promote the adequate (re)integration of migrants and gender equality in the national territory. In particular, Lesotho's draft Migration and Development Policy not only offers the basis, but also presents the potential to effectively address and respond to the specific needs of those on the move due to climate and/or environmental-related disaster.

3.3. Climate and environmental change legislation and governance frameworks

As shown in Table 2, only two (out of six) of the national environmental policy and legal documents that have been examined mention the challenges of human mobility in the context of climate and/or environmental changes in the country.¹¹ The Lesotho Water and Sanitation Policy focuses on the sustainable management of water, as well as ensuring the availability of this natural resource to all citizens through the development and implementation of drought relief strategies and flood management measures (Government of Lesotho, 2007).

The National Forestry Policy also pursues sustainable forest management, facilitating poverty reduction through social and economic dimensions of forestry development (Government of Lesotho, 2008b). Yet the Environment Act (No. 10 of 2008) establishes a national legal framework associated with the protection and management of environmental resources, attesting to the need for preventing the impacts of climate change and taking compensatory measures for such interference on Earth's climate system (*ibid.*). Despite not referring to population movements driven by environmental factors, the Act emphasizes the need to address human settlements.

Another framework that also addresses issues of environment in Lesotho is the National Action Programme in Natural Resource Management, Combating Desertification and Mitigating the Effects of Drought (2015). The Programme explains that environmental degradation leads to increased resource-based problems (i.e. energy, food and water shortage), and thus putting pressure on human settlements located in marginal areas together with poor farming practices (Government of Lesotho, 2015a). In contrast, the National Mitigation and Preparedness Plan for Drought also emphasizes that food insecurity among poor households may result not only in displacement of people (including loss of lives and livestock), but also in rural–urban migration within national borders and/or towards South Africa (DMA, 2015). An important consideration for vulnerable categories of the population is the fact that besides women, the plan includes children below the age of 5, people living with HIV and patients infected with tuberculosis among vulnerable groups (*ibid.*).

RPF is also a governance framework of note for this study. RPF was prepared by Lesotho's Department of Energy to mitigate the direct social and economic impacts resulting from land acquisition to advance the development of renewable energy activities at the national level. Besides setting out principles and objectives governing the implementation of plans to address social risks and impacts, RPF aims to avert human displacement as a result of land acquisition and/or land use change in this context (Government of Lesotho, 2019a). Despite emphasizing that the involuntary

¹¹ Differently from the other spheres of governance investigated in this study, the analysis of national environmental policies was not exhaustive. The analysis included only those policies that could be related to the human mobility–climate/environmental change nexus, leaving documents that address the energy sector – for instance – aside.

relocation of people should be avoided to the extent possible, when unavoidable, Resettlement Action Plans (RAPs) are envisaged to minimize and adopt adequate measures to alleviate both social and economic impacts on displaced people, including host communities receiving them.

In this regard, compensation and related assistance are to be provided to cover such permanent and/or temporary human displacements (ibid.). More importantly, RPF considers gender and related issues as integrating parts of the vulnerability profile to allow for resettlement projects and activities to promote gender equality. It does so by noting that “equal rights are given constitutionally to men and women in Lesotho, and it is appealed to project developers to develop sustainably by taking into consideration special needs of women and other vulnerable groups during the RAP preparation and implementation” (ibid.: 113).

Although the issue of human mobility in the context of climate change and/or environmental degradation has not been raised in Lesotho’s NDCs (Government of Lesotho, 2015b; LMS, 2017b), the topic has been duly acknowledged in all the three national communications on climate change that were submitted to UNFCCC.¹² For instance, the First National Communication on Climate Change recognized that the migration of rural populations due to the deterioration of land resources, associated with distinct climate change scenarios, is bound to weaken socioeconomic structures in urban areas because of rapid urbanization. This reference is made in the frame of the national government advocating, as part of its strategy, the establishment of social funds, special employment schemes and households restoration and resettlement schemes (LMS, 2000).

The topic was also given some attention in the Second National Communication on Climate Change. In discussing the topic, the Second National Communication on Climate Change noted that the decrease in land quality will further accentuate food insecurity, poverty and migration. Specifically, it details that climate change–related factors will also influence culture and historical heritage of the country, and that “recurrent droughts and associated water scarcity, severe reductions in biodiversity, environmental degradation, and desertification; loss of agricultural productivity and associated widespread poverty and livelihoods failure and the migration of large rural populations to mainly informal settlements around urban areas” (LMS, 2013:116). Similarly, the Third National Communication on Climate Change also draws attention to the linkages between land degradation and increased population movements. It reiterates that current droughts have resulted in the impoverishment of populations living in rural areas and thus, migration being an option to enhancing better living conditions in urban areas (LMS, 2021).

¹² Nevertheless, whereas the 2015 INDC highlighted the need to promote gender – and vulnerable groups – mainstreaming in national policies, programmes and projects; the 2017 NDC presented a specific topic on “gender, youth and vulnerable groups imperatives of climate change”, stating that “the impacts of climate change are more severe on sections of the society that are main dependant on natural resources for livelihoods and/or who have the least capacity to respond to natural hazards, such as droughts, landslides, floods and hurricanes” (Government of Lesotho, 2015b; LMS, 2017a).

3.3.1. Climate and environmental change governance frameworks: Perspectives on gender and vulnerable groups

Since the impacts of global warming are closely related to socioeconomic indicators, the First National Communication underlines that the lack or insufficiency of adaptive and mitigative responses will reinforce the vulnerability of specific population groups, including women and children (LMS, 2000). In this regard, the Second National Communication specifically affirms that climate change poses additional challenges to poor and vulnerable communities that are already exposed to multiple threats. Hence, it has recommended the development of programmes in enhancing the resilience of populations to the adverse impacts of climate change (LMS, 2013).

Along the same perspectives, the Third National Communication dedicated a whole section to gender, youth and related issues. By admitting that women are particularly vulnerable to the impacts of climate change because of socially and culturally constructed roles ascribed to them as women, the Third National Communication has identified potential gender-specific climatic risks that will threaten women and children. These include the following: (a) food insecurity among households; (b) increased unemployment in the agricultural sector; (c) tensions between men and women responsible for sustaining their livelihoods; and (d) spread of infectious diseases to which women and children are more susceptible (LMS, 2021).

In addition to the policy documents that were submitted to UNFCCC, Lesotho has developed a set of policies aimed at alleviating the impacts of climate change at the national level. These are the following: (a) NAPA (2007); (b) NCCP (2017–2027); (c) NCCPIS (2017); (d) Guidelines for the Integration of Climate Change in National Sectoral and Local Policies, Strategies and Development Plans (2018); and (e) Lesotho NSRF (Government of Lesotho, 2019b).

With regard to climate adaptation, the 2007 NAPA has outlined priority needs for effective measures to be put into place to avert the adverse effects of climate change in Lesotho. In short, the Programme has identified 11 key adaptation needs in distinct areas (that is, agriculture, water resources, forestry, rangelands, health) that would not only enable the establishment of robust integrated policies and strategies, but also enhance adaptive capacity of communities vulnerable to climatic impacts. Furthermore, it acknowledges a national demographic shift, in which the loss of livelihoods in rural areas has led to mass migration to urban centres, resulting in multiple social problems at the final destination. Although NAPA does not cover issues related to the (re)integration of (internal) migrants, the issue of gender inequality was listed as one of the major developmental challenges facing the country (LMS, 2011).

NCCP (2017–2027) is also identified as another important policy framework on climate issues in Lesotho (LMS, 2017a). This climate change policy has been developed with the goal to address the underlying causes and impacts of climate change through

the identification, mainstreaming and implementation of adaptation and mitigation measures. It is composed of 22 strategies, with the main objectives targeted at the following: (a) promoting climate-resilient, social, economic and environmental development; (b) exploring low-carbon development to foster the sustainable use of natural resources; and (c) strengthening national climate governance together with capacity-building and international cooperation (ibid).

Among the 22 strategies proposed, Policy Statement 22 is of particular interest and relevance to this study, as it deals specifically with climate-induced migration management. It recognizes the weight of environmental factors in the decision to move, and the lack of appropriate infrastructure at the national level to cope with human mobility in the context of climate change and/or environmental degradation. In this light, the Policy sets key principles, objectives and policy actions to handle the issue of climate-related human mobility (see Text box 5). It is envisaged that these actions would enable the delivery of services, guaranteeing domestic order and protecting the national territory from invasion and related threats.

**Text box 5. National Climate Change Policy (2017–2027) –
Policy Statement 22: Enhance social security/protection
by managing climate-induced migration**

Key principles:

- (a) Recognize that climate change will have different degrees of influence on the different drivers of migration.
- (b) Acknowledge that carefully planned and proactive migration can represent a significant and effective adaptation.
- (c) Recognize that migration, including that influenced by climate change, can amplify political or geopolitical problems, and in particular can raise tensions and interact in problematic ways leading to intra and inter-conflict in destination areas.

Key objectives:

- (a) Prevent forced migration resulting from climate-induced factors to the extent possible.
- (b) Provide assistance and protection to affected populations' forced migration due to climate change.
- (c) Facilitate migration as an adaptation strategy to climate change.
- (d) Ensure equal opportunities for migrants, to economic and social amenities at destination areas.
- (e) Promote development and resilience/adaptation in areas of origin and destination.
- (f) Ensure stability and national security.

Policy actions:

- (a) Mainstream migration into national development frameworks.
- (b) Facilitate the proper utilization of rural and peri-urban lands by improving land use and land management schemes (move to natural resources).
- (c) Invest in agriculture in vulnerable areas, such as developing crops and livestock that are pest and drought resistant, early yielding and culturally acceptable, and promote water harvesting, to help curb rural–urban migration.
- (d) Facilitate movement between source and destination areas through improved transport systems.
- (e) Improve basic services in vulnerable areas.
- (f) Promote vocational training, especially for youth, in places with high likelihood of receiving in-migration.
- (g) Promote diversification to reduce dependency on natural resources.
- (h) Improve rangelands and forestry management practices.
- (i) Introduce climate-tolerant forest and grassland species.
- (j) Facilitate flows of remittances, goods and services between source and destination areas.
- (k) Target social transfers and safety nets; include migrants in the social safety nets.
- (l) Improve access to microcredit among migrants.
- (m) Promote alternative livelihood programmes to develop skills among rural dwellers.
- (n) Provide social protection for immigrants.
- (o) Increase accessibility to quality health care for immigrants.
- (p) Enforce rules and regulations of housing and sanitation.

Source: LMS, 2017a:38–39.

NCCP is also aimed at prioritizing the needs of vulnerable groups including women and children, ensuring equitable participation and fair allocation of resources. In relation to vulnerable groups, it acknowledges the following: (a) lack of climate impacts assessments related to vulnerable groups; (b) lack of policy and legal frameworks that enable the participation of vulnerable groups in climate change issues; (c) insufficient awareness of climate change and related topic at the national level; and (d) shift in gender roles and responsibilities when faced with food insecurity due to climate change. Based on these challenges, the Policy calls for the development of gender-sensitive guidelines that allow the effective participation of women in climate-related topics. To this end, a host of key principles, objectives and policy actions were proposed (see Text box 6).

**Text box 6. National Climate Change Policy (2017–2027) –
Policy Statement 16: Promote participation of gender, youth and vulnerable groups**

Key principles:

- (a) Recognize the need for climate change measures that ensure inclusive participation of youth, gender and vulnerable groups.
- (b) Recognize the need for capacity-building for youth, gender and vulnerable groups and create an enabling environment for participation at all levels of planning and decision-making.

Key objectives:

- (a) Promote equitable participation in climate change programmes.
- (b) Encourage information and experience sharing with other climate smart partners.
- (c) Promote development of gender-responsive policies and plans.
- (d) Increase climate change advocacy at all levels of society.

Policy actions:

- (a) Mainstream climate change into youth, gender and vulnerable groups' related policies, strategies and plans.
- (b) Foster and empower youth, gender and all vulnerable groups to effectively participate in climate change issues.
- (c) Advocate for inclusion of climate change at all levels of decision-making.
- (d) Increase awareness and create enabling environment for effective participation on climate change issues.
- (e) Promote training and capacity-building actions to combat and mitigate climate change.
- (f) Encourage use of climate-friendly technologies to address the constraints faced by the most gender, youth and vulnerable groups.
- (g) Advocate for international cooperation on climate change.

Source: LMS, 2017a:32–33.

This policy is already being put into practice through NCCPIS, released in 2017. The Implementation Strategy recapitulates climate adaptation and mitigation as issues of national priority, recognizing the implications of the impacts of climate change to sustainable development. NCCPIS also reiterates the cross-cutting issues of relevance to ensure the effective operation of the climate policy, such as the adequate management of climate-induced migration and the mainstreaming of the gender perspective at the national level (LMS, 2017c).

Finally, the Guidelines for the Integration of Climate Change in National, Sectoral and Local Policies, Strategies and Development Plans (LMS, 2018) is also filled with references to human mobility in the context of climate and/or other environmental changes. The Guidelines refer to the exposure of rural migrant populations to climate risks and vulnerabilities and their poor ability to respond to the occurrence of extreme weather events, which can result in human trafficking and other forms of exploitation. In addition, the Guidelines also draw attention to the fact that areas occupied by migrants in urban areas usually have poor housing and services infrastructure, as they most often tend to be located in risk-prone areas and exposed to extreme conditions, such as floods and landslides (ibid.). Despite not addressing issues of (re)integration of (internal) migrants, the Guidelines emphasize the direct relationships between women's empowerment and climate change. On the one hand, women are disproportionately vulnerable to the impacts of climate change, exacerbating existing inequalities. On the other hand, they have unique knowledge and skills that can help effective and more sustainable responses to a changing weather (ibid.).

In contrast, NSRF (2019–2030) aims to facilitate and coordinate resilience-building in Lesotho. This will enable the development of durable solutions to address the impacts of climate change. By harmonizing resilience-building efforts with other national policies, the overall objectives of NSRF are as follows: (a) prevent and mitigate the negative impacts of climate change through efficient early warning systems; (b) support affected people to recover and/or rebuild their lives while reducing their vulnerability; (c) facilitate communities' adaptation to economic and social strains; and (d) transform structural issues with the potential to precipitate crisis (Government of Lesotho, 2019b).

With regard to the human mobility dimension, Pillar 1 (Disaster and climate risk management) of NSRF is intended to ensure rapid and effective response to disasters and related displacement through, for instance, access to shelter and food supply. On the other hand, Pillar 8 (Governance for governance) of NSRF seeks to empower local authorities to coordinate work with civil society, communities, indigenous peoples and migrants in disaster risk management at the local level (ibid.). The resilience framework also highlights the need to mainstream the role of youth, women, people living with disability and the elderly within the community and in DRR policies (ibid.). Lastly, NSRF recognizes the relevance of resilient livelihoods against the impacts of climate change and related disasters. In this regard, the document underlines that there is a need to mainstream resilience and/or DRR for the achievement of the SDGs at the national level.

Considering Lesotho's less contribution to global warming and – at the same time – its high vulnerability to climate change, it can be inferred that the national government has consistently stressed adaptation and mitigation as central components of its climate response measure. The domestic climate agenda not only acknowledges the

impacts of climate and/or other environmental changes in mobility patterns, but also offers concrete measures to address the phenomenon. It remains to be seen, however, how distinct policy actions will be implemented and executed in the years to come. Moreover, climate policies and related documents in Lesotho take account of gender-based vulnerability, as well as the unique contribution that women can make to advance gender equality and women's empowerment while fighting climate change.

3.4. Disaster risk reduction and management policies and governance frameworks

Disaster preparedness and emergency responses in Lesotho are respectively implemented and coordinated within the framework of the Emergency Powers Order (No. 4 of 1988) and the Disaster Management Act (No. 2 of 1997). The Emergency Powers Order is primarily aimed at safeguarding the welfare and safety of the community in cases of disasters and related matters. In this context, it grants to the president (prime minister) the power to declare a state of emergency in instances when Lesotho is affected or likely to be affected by an emergency. The state of emergency can be valid for a period of up to six months, thereby setting forth the measures that may be taken to address the disaster during the period (Government of Lesotho, 1997).

In turn, the Disaster Management Act provides for the functioning of Lesotho's disaster management plan. The Act stipulates the establishment of the DMA, which acts as the main planning, coordinating and monitoring institution for disaster management and post-disaster recovery at the national level. The DMA is given the mandate to formulate disaster preparedness, mitigation and response strategies, as well as inform citizens of the coming disasters (*ibid.*). In this Act, a disaster is defined as "a progressive or sudden, widespread or localised, natural or man-made event, including not only prevalent drought" (Government of Lesotho, 1997:151). As such, it requires the DMA to plan and respond to drought and disasters in cooperation with other national ministries. In regard to the recognition of the human mobility dimensions in the national DRR policy frameworks identified, only the Disaster Management Act indicates the need for evacuating all or part of the population from any disaster-stricken or threatened area, moving them to temporary shelters with adequate livelihood facilities (*ibid.*). Also, provisions related to the reintegration of (internal) migrants or related to the gender perspective are non-existent in this national governance sphere.

Despite presenting a well-established disaster management system, the existing DRR framework proved to be insufficient to address disaster impacts at the national level. With this in mind, the DMA established a working group to provide guidance for integrating the topic into national frameworks. The working group is aimed at

facilitating the engagement of various sectors to build DRR systems and mechanisms in Lesotho. As a result, NDRRP was published by the national government in 2011. It outlines the framework for the effective planning and implementation of DRR in the country that is based on the decentralization of responsibilities and resources to districts and communities (Government of Lesotho, 2011).

In addition to emphasizing the need to empower the country with comprehensive DRR measures, NDRRP sets out strategies to achieve the following objectives: (a) establish legislative mechanisms for integration of DRR into national development frameworks (that is, sustainable development policies); (b) strengthen institutional structures with clearly defined roles and responsibilities; (c) promote public awareness and knowledge management; (d) enhance disaster preparedness for effective emergency response; and (e) reduce vulnerabilities at the national level (ibid.: 8). Concerning the human mobility dimension in the context of disasters, besides acknowledging that poverty is a major source of vulnerability that is often aggravated by rural–urban migration, the National Policy encourages the development of programmes for relocation of buildings from unsafe areas (ibid.: 18).

Furthermore, it has presented gender equity as a cross-cutting issue, highlighting the need to integrate gender considerations into DRR processes. To ensure that elimination of discrimination against women is achieved, the NDRRP aims to: (a) ensure equity in gender representation in planning and decision-making structures for DRR; (b) recognize the specific roles of women and girls as managers of environmental resources and economic providers; (c) integrate gender analysis in DRR assessments (including emergency response activities); and (d) ensure that capacity-building programmes on the topic are gender sensitive (ibid.: 24).

3.5. Other relevant national policy and governance frameworks

A couple of other national policies and legislations from distinct frameworks are worth mentioning as part of this study. This is in view of the fact that they include cross-cutting issues of relevance for this study, such as human mobility in the context of climate and/or other environmental changes, (re)integration of returnees and/or internal migrants, as well as promotion of gender equality. These policies and legislations include the following:

3.5.1. Lesotho’s National Vision 2020

This policy strategy detailed the medium- and long-term development aspirations of Lesotho. It was aimed at establishing sustainable pathways for economic, political and human development until 2020. The motive was mainly to create an environment where citizens would actively participate in achieving the goals of the policy, resulting in reduced poverty levels where “every Mosotho [would] afford a basic nutritious meal, adequate shelter and attain a relevant and productive education which [would]

enhance the standard of living” (Government of Lesotho, 2005:7). Although the policy document does not acknowledge population movements in the context of climate and other environmental changes, it lists migration as one of the factors behind the driving forces for national development.

In this light, the policy enumerated key barriers to advancing migration governance and/or to protect vulnerable migrants to include the following: (a) lack of data on the topic; (b) lack of coordination between governmental departments (both at technical and political levels); (c) lack of capacity in terms of resources and skills; (d) lack of coherent national migration policies and operational procedures; and (e) negative perceptions of migration. With regard to promoting gender equality, the policy points out that the key strategy is to uproot discrimination and appoint women into areas of responsibility and decision-making in both the public and private sectors (ibid.).

3.5.2. Poverty Reduction Strategy 2004/05–2006/07 (2006)

With the 2006 Poverty Reduction Strategy, it viewed climate change as a major source of poverty in Lesotho. Hence, there was the need to implement adaptation and mitigation measures. The Strategy relates climate change to prolonged droughts, which in turn cause a decline in crop yields, increasing food insecurity and the depletion of water resources for human use and ultimately, leading to poverty. Nonetheless, it does not raise the issue of migration of individuals in search of better socioeconomic conditions and/or as a possible strategy to adapt to the impacts of droughts and climate-related risks. References to the human mobility dimension are restricted to labour migration and the challenges in job creation in view of the significant and continuous decline in the number of Basotho migrant workers employed in South Africa. Despite this lapse, the Strategy makes considerations on domestic violence against women (IMF, 2006).

3.5.3. Interim National Development Framework (2012)

INDF served to provide the link to guide the development process between the end of the Poverty Reduction Strategy and the publication of NSDP 2012/13–2016/17, also facilitating the implementation of the National Vision 2020 (Government of Lesotho, 2012a). It acknowledges that many rural households that derived their sustenance from remittance inflows from family members living abroad now have to rely on unpredictable agricultural outputs due to the impacts of climate change. As such, INDF calls for the participation of disadvantaged groups (such as women) in the national development process and thereby, reducing social vulnerabilities (ibid.).

3.5.4. National Strategic Development Plan 2012/13–2016/17 (NSDP I, 2012)

NSDP outlined the vision of the Government of Lesotho on development over the period of 2012–2017. Through detailed guidance on priorities and specific actions, NSDP focused on addressing medium-term economic development, poverty

reduction and sustainable development. Among the listed priorities, the Plan advocated for the improvement of climate and/or environmental change governance, as well as the greening of the economy. However, even though vulnerability to climate change was one of the key challenges identified in the Plan, climate-induced mobility was not explicitly acknowledged. There were only some generic references on the need to create job opportunities in rural areas to curb outmigration towards urban areas, as well as to make provisions for shelter and property development¹³ (Government of Lesotho, 2012b).

The issues of gender equality, protection of children and youth interests, as well as persons with disabilities, elderly and other disadvantaged groups appeared as cross-cutting topics. Strategic actions in this regard included the following: (a) promoting gender equality and empowerment of women; (b) promoting children development and protection of rights; (c) promoting youth participation in development; (d) preventing disability and facilitating persons with disabilities to lead healthy and productive lives; and (e) reducing vulnerability of elderly people and improving access to services (ibid.: 149).

3.5.5. National Strategic Development Plan II 2018/19–2022/23 (NSDP, 2018)

NSDP II presents the current five-year national development plan that outlines the vision and priorities to transform the economy of Lesotho to allow for job creation and inclusive growth until 2023. The Plan highlights private sector development to encourage private investment and pursue sustainable inclusive growth and job creation in Lesotho. In short, NSDP II seeks to transform Lesotho from a consumer-based economy driven by government spending to a producer-based economy driven by private sector investment (Government of Lesotho, 2018a).

In reference to migration governance, NSDP II presents several commitments made by the national government in relation to the management and importance of (labour) migration for the country since the adoption of NSDP I. At the national level, a National Consultative Committee on Migration and Development was established with the mandate of coordinating migration and related issues in the country. As a result, legal and policy frameworks have been developed to improve coordination and management of migration at the national level, including specific policy actions to address human mobility in the context of climate change and/or environmental degradation, such as the draft National Migration and Development Policy (2021).

Nevertheless, the Plan points out the following challenges in relation to migration governance in Lesotho: (a) lack of consistency between migration policies and

¹³ Regarding shelter and property development, the Government of Lesotho envisaged the following: "(i) improve and develop well-planned and serviced human settlements; (ii) identify appropriate and cost-effective ways of re-planning and accelerating integrated infrastructure roll-out to human settlements; (iii) develop a national land-use plan and implementation strategy; (iv) identify viable options for promoting urban densification whilst minimising traffic congestion, commute, urban sprawl and promoting sustainable urban environment" (Government of Lesotho, 2012b:108).

legislation within various ministries and departments; (b) lack of reliable data on the topic; (c) lack of systematic structure to engage diaspora; (d) lack of effective measures to handle unskilled and irregular Lesotho migrant presence in South Africa; (e) lack of information-sharing mechanisms and consultations with households affected by development projects, environmental factors and localized violence (Government of Lesotho, 2018a). While the Plan is silent on issues of (re)integrations of returnees and (internal) migrants, it recognizes the relevance of mainstreaming gender into policy and programming (ibid.).¹⁴

3.5.6. Gender and Development Policy (2018–2030)

Considering that women, girls and other vulnerable groups in Lesotho continue to experience different forms of discrimination and violation of their fundamental freedoms and rights, this Policy provides the framework to guide efforts at enhancing gender equality and women empowerment in Lesotho. This is to be achieved through inclusive and multisectoral approaches to include all government levels, as well as with CSOs, private sector and development agencies. It includes a specific section (see [section 4.6](#)) on “gender, climate change, sustainable development and disaster risk management” (Government of Lesotho, 2018c).

Within this section, the Policy acknowledges that climate change leads to prolonged droughts and other extreme weather events, resulting in crop failure, food insecurity, spread of diseases and human displacements. In this context, women and children are seen to be disproportionately affected. Against this background, therefore, the Policy aims to develop mechanisms that are capable of enhancing resilience and mitigating climatic impacts on women, girls and other marginalized groups (ibid.). The drive is to institute measures to address the gender–climate change nexus in Lesotho for inclusive growth and sustainable development.

¹⁴ In this regard, strategic interventions related to the gender perspective include: “(i) advocate for male involvement in gender and sexual and reproductive health programmes; (ii) improve capacity of support institutions and law enforcement agencies to deal effectively with gender-based violence; (iii) promote information dissemination and legal frameworks that promote gender equality and develop guidelines to facilitate implementation; (iv) empower women to participate equally in politics, including leadership positions and economic activities; (v) mainstream gender into national development programmes and projects; (vi) develop strategies to eliminate early, forced, and child marriage; (vii) expand access to sexual and reproductive facilities for women and men” (Government of Lesotho, 2018a:162).

4.

**Climate/
Environmental
change, hazards and
impacts**

As observed in the case of other countries in the Southern Africa region, Lesotho has also recorded changes in its climate and is exposed and vulnerable to the associated natural hazards. In Lesotho, climate change has manifested in several ways and with adverse impacts across both the northern and southern areas of the country. From the research, both key stakeholders and local populations interviewed alluded to observed changes in the local climate of the country over the past 30 years.

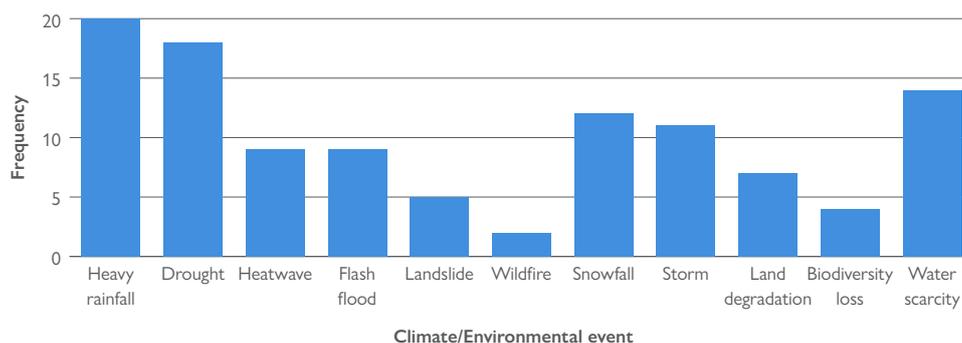
4.1. Perceptions of climate/environmental change and hazards

In Lesotho, episodes of adverse weather events like heavy rains, hailstorms, flash floods and droughts are not new. Although research participants did not register any knowledge of any scientific projections of climate change, they pointed to observed changes in rainfall patterns and the increasing occurrence of extreme events like droughts, snowfall, hailstorms and heatwaves. Changes in day and night-time temperatures and in the different seasons were also identified as partially accounting for the unusual warm winters and cold summers that are being witnessed in recent times. For example, a female research participant narrated that:

Nowadays, the hailstorms just come unexpectedly. It [hailstorms] rained here [Mafeteng] in August and Leribe in October 2021; and the volume/quantity of the hail has increased in size, duration and frequency. We used to know small sizes of the hail, but now it is big and packs so much, destroying houses due to its heaviness. (Note: Emphasized by authors)
 – Female participant 1, Vulnerable population FGD 1, Mafeteng, January 2022

Among the vulnerable populations, nearly all the research participants reported that they had experienced heavy rainfalls in the last couple of years (see Figure 3). Many others also mentioned the increasing occurrence of drought (18) and water scarcity (14) as being triggered by the ongoing climatic changes in the country. Although changes in snowfall and storms were also enumerated by the research participants, land degradation and loss of biodiversity were also environmental degradation challenges that they were grappling with in their communities.

Figure 3. Perceptions of climate/environmental change and related hazards in Lesotho



Source: Authors' field work, 2022.

In corroboration with the views shared by the vulnerable research participants, key stakeholders also noted recent changes in rainfall patterns, as well as increase in frequency and intensity of extreme climatic events. A key stakeholder, in giving his expert opinion on the issue of observed changes in climate in the country, intimated during the stakeholder FGD that:

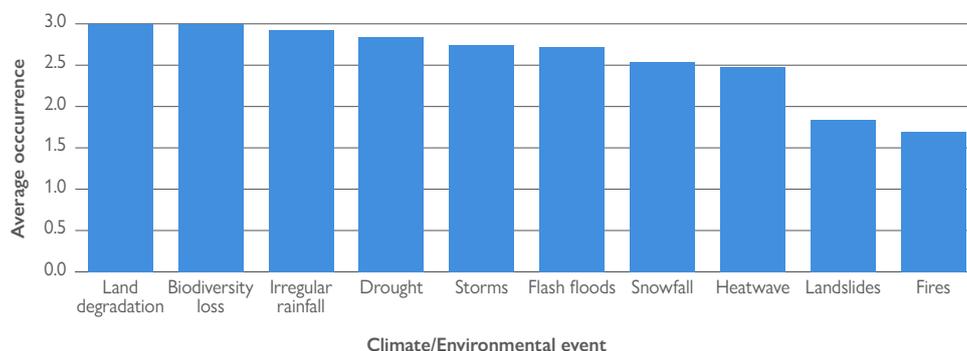
I think we have had changes in the weather patterns for the last 30 years. Weather patterns have really shifted from what we would call normal rainfall patterns to abnormal. We are now experiencing extreme weather events also that are clearly leading to flooding and damage to infrastructure. Also touching on the issue of temperature, we are also experiencing an increase in temperature. We are now having warmer winters, and sometimes we even have colder summers. An example would be that sometimes we have snow in summer, whereas in the past, we would expect snow in winter. So those are some of the impacts that we see.

– Male key stakeholder 1, Stakeholder FGD, Mophale's Hoek, 2022

Another view that was also widely shared among participants was that the cropping or agriculture calendar had shifted. The observation for the past few years has been that August – traditionally the starting month of the farming year – is often still too cold to start planting. This new occurrence was attributed to the effect of the change in the weather system and the climate. Thus, the general consensus among research participants is that the different local climatic parameters have not only changed over the past 30 years, but that extreme events have become more frequent and severe across the country.

With research participants acknowledging the observed changes in local climatic patterns and environmental degradation (land degradation and loss of biodiversity), they were further asked to assess the frequency of occurrence of the climate change and related hazards they had enumerated on a scale ranging from 1 (does not/hardly occurs), 2 (occasionally), to 3 (occurs frequently). As shown in Figure 4, the key stakeholders were unanimous in enunciating that land degradation and the associated loss of biodiversity was rife and remains a major challenge in rural communities across the country. Irregular rainfall, drought, storms and other related hazards are frequent events that were mentioned as indications of how climatic patterns and the physical environment had changed over time.

Figure 4. Average occurrence of climate/environmental change events and natural hazards



Source: Authors' field work, 2022.

The views and lived experiences of research participants largely converge with long-term historical analysis of changing climatic patterns in Lesotho. What the current and projected changes in climate patterns reported will mean, in the context of ongoing global climatic change, is that Lesotho will continue to experience and be affected with adverse implications for the vulnerable rural populations who mainly derive their livelihoods from rain-fed agriculture and the natural resource base (Government of Lesotho, 2019b).

4.2. Climate/environmental change impact and hazards

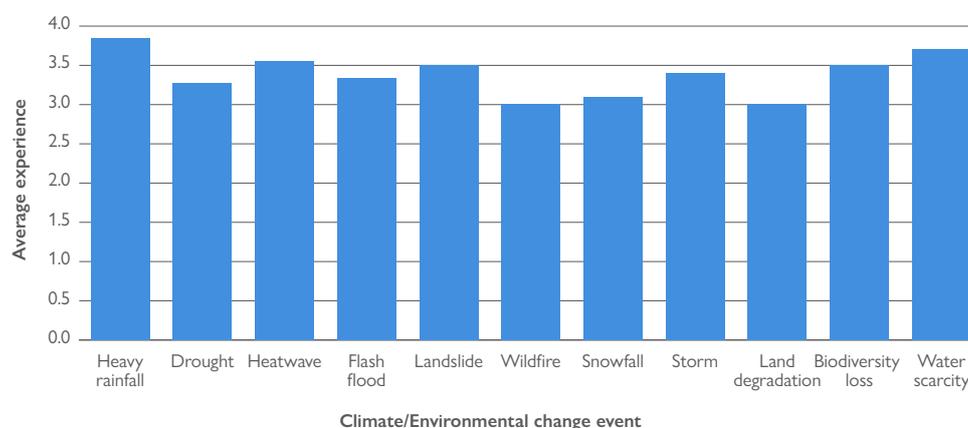
Considering that rain-fed agriculture is the mainstay of the majority of the population, the impact of ongoing climate change and related hazards has had negative effects on rural households and efforts at poverty reduction in Lesotho. In the view of the research participants, the adverse effects of climate change, environmental and land degradation have mostly been on agricultural production, water scarcity and lack of pasture due to the impact of drought on vegetation growth. A male participant, in expressing his opinion on the subject, during one of the FGDs for vulnerable populations, for example, recounted that:

I think another event is drought. You find that in 2019, there was such a severe drought that animals died due to lack of vegetation and water for drinking. Even if you try to buy fodder – like Lucerne [Medicago Sativa] – for animals to feed, this is expensive and not sustainable in the long run.

– Male participant 1, Vulnerable population FGD 2, Mhale's Hoek, February 2022

Besides the unpredictability of the start of the cropping year, more than half (16) of vulnerable persons interviewed mentioned prolonged dry spells or severe droughts (especially between 2015 and 2019) as affecting crop productivity. Given that maize, as the most dominant farm crop grown in rural areas is climate sensitive, the frequent occurrence of drought has consistently affected productivity.

Figure 5. Severity of climate/environmental change events and natural hazards experienced



Source: Authors' field work, 2022.

On the average, the impact of heavy rainfall activity has been ranked as having been the most severe event experienced in recent times. As further illustrated in Figure 5, higher average rankings were also respectively recorded for water scarcity, landslide, biodiversity loss, heatwave, storm, flash flood and drought. Other than the effect of land degradation on soil fertility, the impact of heavy rains especially during the 2020/2021 season was also mentioned by nearly all vulnerable research participants (19) as destroying houses and crops, as well as limiting the time available for harvest. Another issue that came to light was that the heavy rains also often cause waterlogging, which tends to impede plant growth. While the issue of waterlogging was evident in most communities, research participants in Motse-Mocha–Qibing Community Council (Mafeteng) indicated that the heavy rains in 2021 had made it practically impossible to plough their fields. This thus left them with nothing to harvest at all. A female participant expressed her frustration during one of the FGDs that:

It is crop production. Agriculture nowadays is not as we used to know it when you compare it to other countries. Maize production, because of rain, the crop will not even reach the tasselling stage. When you look at the fields now, the crop is still growing and has not yet reached maturity – still tasselling and yet the crop was planted in time. This is due to heavy rains.

– Female participant 2, Vulnerable population FGD 2, Mohale's Hoek, February 2022

What seems to resonate with all research participants is that the impact of climate change and environmental degradation in Lesotho was widespread and not limited to only specific communities or ecological zones. However, rural farm households, herders and vulnerable groups like women, children, as well as elderly persons and persons with disabilities, were identified as groups who bore the brunt of the observed climatic changes and related natural hazards in the country (see Table 3).

Table 3. Groups vulnerable to climate/environmental change impacts

Group/Category	Percentage
Children and young people	28.6
Vulnerable economic groups (such as pastoralists/herders, smallholder farmers and informal sector workers in garment industry)	28.6
Women	23.8
Elderly and persons with disabilities	19.0

Source: Authors' field work, 2022.

Despite Lesotho's endowment as a source of water and subsequent export of this "white gold" to neighbouring South Africa, the distribution to rural communities has remained an existential challenge (LMS, 2015). Moreover, the impact of recurring drought has exacerbated water scarcity in the rural communities. As a consequence, women and children have to now walk longer distances to fetch drinking water. Aside from the physical and psychological stress this has on women and children as a vulnerable group within the societal setup, walking longer distances has implications for their personal health, safety and security.

Because of water scarcity, it has also become difficult to get water for animals to drink. For some communities (such as in Ha Ramokhele, Mafeteng), the local chief had to give permission for people to draw water from wells meant for animals. In the community of Ha Maphohloane in Mohale's Hoek, a research participant revealed that the community experienced acute water scarcity during the 2015 severe drought. As a result, they had no option than to trek longer distances to search and fetch water for household use. With regard to the Ha Ramokhele community (Mafeteng), the land was reportedly too dry to allow for any farming activity, while WASCO could not even provide water for household consumption and use. Some other affected communities in Quthing had to incur additional expenses by buying water from tankers or vans who had brought water from far away to sell. One rural dweller in Ha Lebenkele (Mafeteng) recalled that:

I had to travel a long distance to get water. Also, there was a long queue to get the water.

I had to buy water at R 3.00 for a 20-litre container due to lack of water. Villagers fought, and there was conflict to an extent that the chief had to intervene.

– Female research participant, Vulnerable population,
in-depth interview, Ha Lebenkele, Mafeteng, January 2022

Still, in the Ha Lebenkele community, it was recalled that the drought in 2017 had affected the growth of vegetation in the area. Because of this situation, there was no pasture for animals to graze. Several other farms were reportedly infested by army worms, which destroyed the crops. In terms of health, the general complaint was

mainly of dehydration and illness (also for animals). Reports of animals and people dying of heat stroke from the accompanying heatwave due to high temperatures were also reported during the interviews. An instance of one research participant disclosing that a neighbour got skin cancer, due to high temperatures and scorching sun, gives an impression of the intensity of the heatwave. While the medical basis and claims of health challenges cannot be verified or assessed within the scope of this study, more holistic explanations were that:

The extremes in weather brought on by climate change have not only exacerbated environmental degradation, as our landscape is very vulnerable due to its mountainous nature, but they have also impacted existing infrastructure, such as roads, buildings, drainage systems and others, and farming, as the excessive rains have ruined crops. Certain weather conditions such as prolonged heatwaves affect air quality and thereby, intensify health conditions such as respiratory diseases.

– Male key stakeholder 2, Key stakeholder interview, Maseru, January 2022

Young children are also vulnerable. Since rivers are overflowing, roads and bridges are destroyed, which affects their movement, making them miss school. Also, too much rain, drought and heatwaves predispose the children to health-related issues such as diarrhoea and measles.

– Female participant 3, Vulnerable population FGD 1, Mafeteng, January 2022

Drought impact is also noted to have an indirect effect on non-farm small-scale businesses. This was particularly evident during the 2015 drought, where the impact on commercial farmers who had greenhouses and also purchasing power meant that there was no money to buy goods from persons operating small businesses such as *spaza*. As such, demand for goods and services also significantly waned. In Tele (Quthing), for example, non-farm small business owners admitted to being indirectly affected, as they recorded losses in their sales because of the low demand for goods. One small businessowner in the community, for instance, lamented having to run his business at a loss by reducing the prices of his wares so that farmers could afford to buy from him.

For those who expressed concern about the loss of biodiversity due to environmental degradation, they noted that there were no longer wild animals like hares, wild birds and *lipela* (black eagle) in the communities like they used to see in the past. Medicinal plants like *Dicoma anomala* herb, used extensively for treatment of dysentery, fevers, cough, common cold and ulcers in many parts of sub-Saharan Africa, were now also getting scarce.

Similarly, the 2018 snowfall in Mafeteng was also a climate-related event that had resulted in roads being blocked and high mortality for animals like sheep and chickens.

For herders, snowfall has been one of the main factors influencing them to move cattle to low-lying areas to avert the death or loss of their herds and other livestock. Considering that most rural smallholders and households are saddled with lack of financial capital, the majority are unable to afford or buy fodder to feed their livestock. In correlation with the delineation of climate vulnerability zones in the Lesotho NAPA (LMS, 2011:11), both the mountainous and southern lowlands of Lesotho (Mafeteng, Mohale's Hoek, Thaba-Tseka, Lower Senqu River Valley and Quthing) were identified as areas that were most vulnerable and affected by ongoing climate change and related natural hazards. The underlying reasons for the vulnerability of these districts relates to the fact that they are not only predominantly rural, but that the populations in these districts depend highly on the natural resource base and agriculture for their sustenance; these are both sectors that are highly sensitive and continuously affected by ongoing climate and environmental change.

Besides the loss of livestock, another cascading effect of water scarcity was also that many people drank contaminated water that was originally meant for animals, which made them fall sick. The compounding effect of poor crop production on food scarcity is also that school feeding schemes across most of the districts were also affected. This was mainly due to the fact that there was barely any food available to feed students in most of the rural communities.

The views of research participants can be seen to corroborate similar findings of studies on the social vulnerability and effect of environmental challenges on the agricultural sector in Lesotho (see Letsie and Grab, 2015; Gwimbi, et al., 2013). Nhemachena et al. (2017), in their assessment of agricultural growth trends and outlook in Lesotho, for example, identified land and environmental degradation and loss of soil fertility as the main challenges affecting the agricultural sector. The situation is further compounded by the degrading effect of increasing agricultural activities on steep slopes, decline of arable land (since 1969 to 14.1% as of 2018) due to increasing urbanization, as well as the lack of irrigation schemes to drive agricultural production (Rocchi and Del Sette, 2016; Knoema, n.d.).

The degree of encroachment on agricultural land. We used to have it as 13 per cent; it went down to 9 per cent and I guess it is less than 9 per cent right now. And it is not only happening in the lowland urban areas as we say; we have peri-urban areas like Semonkong. I have worked at Semonkong for five years, and I have seen the degree of unplanned settlements on agricultural land. It is happening in Mphaki; it is happening in Thaba-Tseka; it is in the mountains; it is happening in Mokhotlong [Mapholaneng] within peri-urban and urban areas, also in the mountain districts like Qacha's Nek. So, there are a lot of maybe push factors from the rural population to these peri-urban or urban areas. Maybe for a number of reasons really, I think, not repeating ourselves, I think the issue of unproductive lands, also linked to climate change, is very central to the process.

– Male key stakeholder 3, Stakeholder FGD, Mohale's Hoek, February 2022

A recent assessment of the food security situation in Lesotho, which was part of IPC (November 2021–March 2022), also indicated that waterlogging, food price shocks and COVID-19 were factors that had continued to drive acute food insecurity in the country (IPC, 2022). Besides the compounding effect of COVID-19 and lockdown measures in reducing the inflow of remittances to households, many farms and crops had been destroyed by the heavy rains that occurred in early 2022. Although food insecurity is a challenge across all the 10 districts, what the IPC projections suggest is that the districts of Qacha's Nek, Quthing, Mafeteng, Mokhotlong and Berea will specifically face food crisis in the first quarter of 2022 (ibid.). These projections can be seen to largely converge with the observations of research participants that the three southern districts Mafeteng, Mohale's Hoek and Quthing were the most affected by climate change, environmental degradation and recurring natural hazards like droughts and floods in the country.

From the views of research participants and insights from existing empirical research in Lesotho, it is apparent that climate and environmental change impact and natural hazards remain veritable challenges that will continue to affect and derail efforts at poverty reduction and inclusive growth as widely envisioned in the Lesotho NSDP II (2018–2023) (Government of Lesotho, 2018a). Given the impact of COVID-19 on job losses and decline in the inflow of remittances to rural areas, it is envisaged that this will exacerbate the economic hardship that rural farm households are already experiencing.

Despite these seemingly grim expectations of the near future in Lesotho, it is also a fact that when vulnerable populations are confronted with risks or challenges, they often draw on their human agency to respond or cope with the stress or challenges that may be facing them. As exemplified by the historical and political evolution of Lesotho as a country, the Basotho have often made responses or initiated strategies to cope or adapt to whatever socioeconomic or environmental challenges confronting them. The translation of human agency, as in the plethora of responses or coping strategies to the effects of environmental change and economic hardship, by Basotho are further highlighted in the following section.

4.3. Responses to climate/environmental change and natural hazards

As observed in many parts of Southern Africa, vulnerable or affected populations have often adopted different strategies to respond to climate and environmental change impacts (Vincent et al., 2013; IOM, 2019c). In the face of climate and environmental change risks and economic hardship, Basotho have not remained passive victims to the manipulations of the physical environment and threats to their livelihoods and sustenance. A common feature of Basotho socioeconomic organization is that they have often drawn on their agency and adopted different strategies as responses to environmental stress and crisis.

To appreciate the assortment of responses to climate and environmental change impact in rural communities, a “free listing”¹⁵ approach was used to elicit information on the strategies that vulnerable populations in Lesotho have used to cope or adapt to climate change impact on their livelihoods and socioeconomic well-being. From the free listing shown in Table 4, it can be seen that people have mainly employed a host of strategies to cope with impacts from the different extreme climatic events and related natural hazards.

Table 4. Free listing of coping strategies to climate/environmental change and hazards

Event	Response/Coping strategy	Assistance received		Assistance from who
		Yes	No	
Heavy rainfall	<ul style="list-style-type: none"> – Fixing roof – Collecting water from villages with big tanks – Replanting of vegetables – Planting in the house garden instead of fields – Closing roofing leaks with grass 	5	10	– Neighbour carpenter who provided help
	<ul style="list-style-type: none"> – Fixing roof – Just planted during the rain – Did nothing – Weeding for other people whose farms were not affected – Changing the area or location of work (shack to sell wood and metals) 			– From neighbours
	<ul style="list-style-type: none"> – Relocating <i>kraal</i> to another area; using cement instead of mud to build a house 			– Allocated land by chief
	<ul style="list-style-type: none"> – Building temporary shack and fixing roofing of the house that was blown away 			– Did not ask for help, so did not get any
Drought	<ul style="list-style-type: none"> – Drawing water from wells meant for animals – Raw materials for work ordered in advance – Fetching water from neighbouring village – Family members relocated to South Africa – Constructing boreholes 	4	14	– Chief gave permission for villagers to get water from wells meant for animals

¹⁵ *Free listing* is an anthropological research method that allows for an individual to list or freely identify issues or items within a given domain. It describes a mental inventory of issues in a particular category and helps to appreciate different perspectives of individuals on topical issues across groups (see da Silva Chaves et al., 2019; Quinlan, 2019).

Event	Response/Coping strategy	Assistance received		Assistance from who
		Yes	No	
Drought	<ul style="list-style-type: none"> – Relying on previous year's payment from harvests for sustenance – Reducing the prices of goods and giving farmers discounts to be able to afford the products; some farmers had to buy water to irrigate (mostly commercial famers) – Insecticide was brought to spray farms 			<ul style="list-style-type: none"> – Got help from neighbours – Income from work with catchment management works (<i>fato-fato</i>) – Farmers asked for help from the Ministry of Agriculture but did not get any assistance
	<ul style="list-style-type: none"> – Walking to faraway places which had water – Uncle provided supported with money as there was difficulty in coping; other family members waited on support from elder brother – Bought food and medicine for animals 			<ul style="list-style-type: none"> – Chiefs provided support with the government ministry – Government provided a tanker used to obtain water – Elder brother had to put food for the entire family, but this brought conflicts as he had to provide for family of four persons
Heatwave	<ul style="list-style-type: none"> – Going to neighbouring communities for water 	-	18	
	<ul style="list-style-type: none"> – Using protected agriculture from greenhouses provided by the Government – Using net and other covering to provide shade for animals 			<ul style="list-style-type: none"> – Received support with greenhouses from the Government
	<ul style="list-style-type: none"> – Taking sick children to nearby clinics 			<ul style="list-style-type: none"> – Obtained help only from clinics
Flash flood	<ul style="list-style-type: none"> – Rehabilitating community roads, trying to curb erosion, diverting water away from the roads and fields as a community 	-	20	<ul style="list-style-type: none"> – No support from the Government
	<ul style="list-style-type: none"> – Constructing diversion furrows and growing along slopes and terracing in the fields 			<ul style="list-style-type: none"> – Received advice from the Ministry of Agriculture on how to protect and rehabilitate the fields
Fire	<ul style="list-style-type: none"> – Extinguishing international fire started by herders 	-	1	
Snowfall	<ul style="list-style-type: none"> – People assisted each other to rebuild houses 	1	-	<ul style="list-style-type: none"> – From community members
Storms/ strong winds	<ul style="list-style-type: none"> – Asking a villager/community member for assistance – Community members with construction skills were asked to assist affected houses by the chief – Removing and clearing fallen trees themselves – Neighbours whose houses were not affected offered shelter to affected families 	4	1	<ul style="list-style-type: none"> – Assistance from community member – Community members and chief

Event	Response/Coping strategy	Assistance received		Assistance from who
		Yes	No	
Storms/ strong winds	– Community helped affected people to rebuild houses			– Government gave money to affected people
	– Public gatherings organized to sensitize community on the importance of conservation and the urgent need to stop killing animals and overharvesting of medicinal plants			– Chiefs and councillors led sensitization drives
	– Sensitization on conservation and reminding people that it is illegal to kill wild animals and anyone caught will be made to face the law			– Support from chiefs and councillors through sensitization
Water scarcity	Purchasing water from a tanker or vans	1	-	Community members who had vans brought water to sell; no assistance from the Government or NGO
	Getting water supplied from tanker			Support from the Government and community council
	Travelling long distances to get water			Government provided tanker to fetch water
	Grandmother and grandchildren travelled together for security to get water			Community contributed for WASCO to build water tank

Source: Authors' field work, 2022.

As shown in Table 4, for example, most of the measures that people have taken to cope or as responses to climate change are not peculiar to certain events, but have mainly been ad hoc and tend to overlap the different climate or disaster events. In the case of drought, heatwave and related water scarcity, for instance, the responses have mainly straddled walking long distances in search of water to getting water supply from tankers. With the effect of heavy rains and flash floods, a strategy that was widely mentioned by research participants was the construction of furrows to divert water from roads and fields. Other than the sale of livestock to earn a living when the land seems to lose its productive capacity, key stakeholders also noted that some vulnerable or affected persons sometimes come together to cultivate fields and then share the food after harvest. In relation to sharecropping as a coping strategy and its benefits, a stakeholder narrated this experience.

I had an interest to engage in agriculture even though I did not have any fields or any animals, so I went to the villages and found lots of fields. One of my councillor relatives agreed there are many fields in the area, but pleaded with me to use a field by one person who was very destitute in the community. I went to negotiate with the person and when I got there, we agreed to get into a partnership/sharecropping on his field instead of leasing it to me. His interest was food instead of renting. Fortunately, the yield was good, and there was a lot of food. Everybody was very happy since other people also benefited from the food and since they were involved in activities like hoeing. This managed to help many people from the village, as each got a bag of produce for having helped in one way or another during the production of the food in the field. Those are some of the coping mechanisms.

– Male key stakeholder 4, Stakeholder FGD, Mhale's Hoek, February 2022

Research participants also mentioned immediately seeking support and galvanizing other community members to help fix buildings and other social infrastructure. In one instance, a community member indicated he had to make compromises by reducing prices of goods to break even and empathize with affected community members by giving discounts during the period of drought disaster. Also, support from family relations, neighbours, community and local chiefs were mentioned as key responses to the effects of recurring climate risks in the rural communities.

The communal support and acts of solidarity underscores the importance of social capital in enhancing coping or adaptive capacities of vulnerable populations in rural communities. In terms of formal climate action, what this means is that any intended programmes or projects will need to take into consideration the cultural aspects of communal support, reciprocity and also allowing for community participation to enhance climate resilience. A striking response that was listed and worth noting relates to the collaborative efforts of local chiefs and councillors to sensitize people on the need for and importance of environmental and biodiversity conservation as key to addressing land degradation, loss of biodiversity and enhancing climate resilience.

What is also apparent in the free listing is that most of the strategies seem to be ad hoc and only focused on short-term relief from climate change-related stress, rather than long-term adaptation measures. Most of the research participants also sought to suggest from the listing – as not receiving any assistance in the immediate aftermath of an extreme event or for long-term adaptation to climate and environmental change. While this may seem to be the case in the opinion of some research participants, others admitted to receiving financial support and the provision of tankers to fetch water from the Government.

Nonetheless, the insights gleaned from the policy analysis conducted (see section 3) and stakeholder interviews also suggest the provision of support from existing climate change projects and social protection programmes. Climate-related projects such as Strengthening Capacity for Climate Change Adaptation through Support to Integrated Watershed Management, covering the districts of Thaba-Tseka, Mafeteng and Quthing, and Reducing Vulnerability to Climate Change project for Mohale's Hoek district, for instance, were mentioned as projects that proved to be successful in addressing the impacts of climate change in rural communities. A stakeholder in discussing the issue of assistance in the communities, for example, recounted that during the 2015/2016 drought:

The Government declared a state of emergency on the drought and made humanitarian appeals following the disasters. Humanitarian support was provided through multilateral support of NGOs, United Nations agencies, donor agencies and other diplomatic agencies.

– Male key stakeholder 5, Key stakeholder interviews, Maseru, 2022

Other instances of support to vulnerable communities were cases where helicopters and rescue teams went out to help during snowfall and trucks carrying water to supply to villages that were facing water shortages. Several other affected persons also received social support grants. All these interventions exemplify governmental and multilateral support to addressing climate change impacts across rural communities. However, the interventions and responses listed so far also seem to suggest a reactive rather than a proactive approach to promoting long-term adaptation and climate resilience in the rural communities. Yet the expectation is that global warming and the associated impact on the climate and rate of environmental degradation in Lesotho will continue into the near future. In this regard, climate action should thus be targeted at promoting long-term climate adaptation and resilience in rural communities.

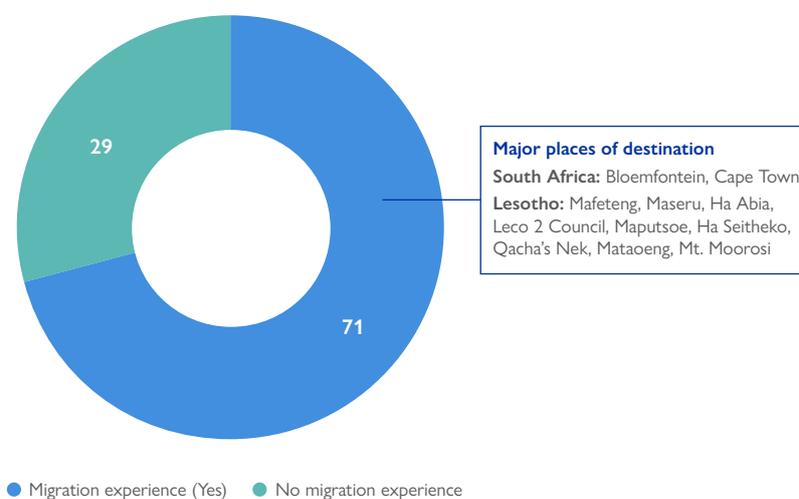
While the capabilities of most Basotho to adequately respond to the impact of climate change, environmental degradation and related risks have to some extent been constrained by the lack of assets (including social, physical, human, financial and natural capital) (see Carney et al., 1999; Matsumoto, 2014), migration (both internal and cross-border) has emerged as one of the main strategies people adopt as a livelihood and coping strategy (see WFP, 2015; Rocchi and Del Sette, 2016; IOM, 2019c). The relationship and impact of climate and environmental change on migration in Lesotho are further examined in the following section.

4.4. Climate/Environmental change impact and human mobility

Migration in Lesotho is generally characterized by high levels of both internal movements across districts and cross-border migration to South Africa and to other Southern African countries. Given the high rate of population mobility in Lesotho, the 2014 Lesotho DHS has estimated that at least 42 per cent of household members were either living elsewhere in Lesotho or in South Africa (Ministry of Health/ICF International, 2016). This observation has further been affirmed by the 2019 LVAC assessments which pointed to households having at least one member who has migrated to South Africa in almost all the districts surveyed (LVAC, 2019).

To examine the underlying motivations driving migration in the context of climate change and environmental degradation across the rural communities, an assessment was made to first ascertain the migration experience of research participants in the rural communities visited. As may be seen in Figure 6, the majority of research participants (71%) indicated as having migration experience. The major places of destination included cities such as Bloemfontein and Cape Town in South Africa and internally, to other districts and rural communities in Lesotho.

Figure 6. Migration experience



Source: Authors' field work, 2022.

For those who did not migrate at all, they cited family reasons of having to stay and take care of their children and the situation of drought impact being the same in South Africa and thereby, the possibility of lack of jobs as reasons that made them stay. Even so, these “non-movers” admitted to knowing some other relations or some community members who had migrated or had a family member residing elsewhere in Lesotho or in South Africa.

With regard to the underlying motivations or factors that informed the decision to migrate to any other place out of their community or usual place of residence, a variety of socioeconomic and environmental reasons were advanced as accounting for the decision to migrate. From the analysis, the main economic reason for migration was to seek job opportunities in order to gain waged income (Table 5).

Table 5. Underlying reasons for migration

Reasons for migration	Percentage
To find work/gain income	44.4
Education/Study opportunities	7.4
Assist/Provide food and income for family	15.0
Climate change impact on agriculture/water scarcity	18.5
Lack of social infrastructure/services	3.7
Marriage	11.1

Source: Authors' field work, 2022.

Besides the urge to migrate in search of job opportunities, the impact of climate change and environmental degradation on agricultural livelihoods and water scarcity was also implicated as a driver of migration. But with the rain-fed agricultural sector also affected by climate change and environmental degradation impact, many communities are grappling with food insecurity. In this light, many family members stated the need to assist or migrate in order to be able to provide food and income for household provisioning as an important motivation for migrating. The lack of social infrastructure and the need to access better educational opportunities outside of rural communities were also identified as drivers of migration especially among young people.

In the context of the FGDs, the central link between climate change and human mobility in Lesotho is reflected in the corresponding impact on agriculture and related activities. This was mainly in view of the fact that the dependence on subsistence farming remains generally high in rural Lesotho. However, the claims of research participants is that the importance of agriculture to rural communities is waning because of the adverse impact on harvests and thus, food and livelihood security. The same situation is also observed in the case of livestock production, with herders having to undertake cross-border migration with their herds to the South African border communities to look for pasture. The competition for resources often results in cross-border resource conflicts and loss of livestock.

In most of the southern districts, for example, communities have witnessed years of land degradation caused by prolonged dry seasons (droughts) and soil erosion due to the lack or insufficient environmental conservation activities/practices. As a result, farming has been affected, and the districts are confronted with acute food insecurity. During the prolonged drought in 2019–2020, for example, there was the observed mobility of people (labour migration) and children to other rural areas with food availability. In the result of these movements, traditional migration patterns are – according to the participants – also shifting towards longer or even permanent stays in the lowlands or the (peri-) urban areas of Lesotho. In the opinion of a key expert from one of the national agencies, she clarified that:

Most of our rural areas depend on subsistence agriculture. Our agriculture is not commercial. We do not put a lot of inputs into our agricultural practices; it depends on the weather systems. As a result, when the weather or climate changes, we do not have any response to make sure that we get the harvest we are intending from that land [...] people migrate from the highlands to the lowlands to find other means of living. The migration and settling of rural–urban migrants is a symptom that something is not right where they are coming from – for example, bad weather patterns in the highlands. So as a result, they have no dwelling places and end up building homes in agricultural lands in the lowlands or in urban areas.

–Female key stakeholder 6, Stakeholder FGD, Mohale's Hoek, 2022

The view was also that other than climate change, the impact of rural development projects in some communities also served to attract migrants to work or displace people and thereby forcing them to migrate. In the case of migration to Mapholaneng, for example, it is highlighted that people flock into the area to take advantage of the job opportunities from the construction of the Katse Dam as part of LHWP.

Because of climate change and other environmental challenges, the land cannot produce enough, so whenever there is an opportunity for income generation; people leave from where they are not earning anything, they would rather flock to Mapholaneng. The same thing is happening in Katse where people are migrating to South Africa to work in illegal mines (*zama-zama*). Others work in the construction industry in South Africa, while some also do domestic work to earn a living. The unstable/unpredictable income becomes a push factor to the people in the rural areas.

– Male key stakeholder 3, Stakeholder FGD, Mohale's Hoek, February 2022

Aside from the loss of livelihood and the drive to seek job opportunities, development- and climate-related displacement also accounts for temporary relocation of people, especially in dam or river catchment areas. Information gathered from one of the FGDs for vulnerable populations suggests temporary relocation as a regular occurrence in the Senqu River catchment area, where people are often asked to temporarily relocate when the river overflows its banks.

Climate change does affect displacement; we have heard that people residing downstream of the Senqu River are told to temporarily relocate when the river is full and overflowing (flooded). Even herders are told to relocate temporarily; that is displacement.

– Female participant 3, Vulnerable population FGD 1, Mafeteng, January 2022

Apart from having to temporarily relocate, the spate of increasing land degradation and loss of biodiversity were also cited as precursors to long-term relocation in some communities. The explanation is that people have no choice for any alternative livelihoods than to unsustainably exploit the natural resource base upon which they derive their livelihoods. However, the situation is that environmental degradation is rife in the rural communities. As a consequence, biological resources have also considerably declined or have been eroded in most communities. Hence, people are sometimes forced to relocate to other relatively endowed communities. The increase in competition for the already scarce resources in the local or destination areas has often been a basis for tensions or even violent conflicts between border communities.

This [relocation] will cause conflicts, where the residents of the areas from which their resources are harvested will assault a person collecting from their areas resulting in murder. Long-term resource conflicts will start when one village attacks and the other retaliates contributing to many litigations which never end. (Note: Emphasis by authors.)

– Male participant 2, Vulnerable population FGD 2, Mohale's Hoek, February 2022

Another observed mobility trend in the context of climate change relates to the existing evidence of an increasing female migration. With climate change impact on food security, the situation is that women are increasingly migrating to urban areas to work in the informal sector.

Female-headed families face a challenge – that a woman may decide to leave when her animals have died to look for livelihoods somewhere else, leaving households and children alone. Children end up becoming orphans, yet the mother is still alive. Lately, we hear that those women end up not reaching their intended destinations, as they get kidnapped on the way and become trafficked or lured by false job promises. What I am trying to say is women are one of the most vulnerable groups.

– Male participant 3, Vulnerable population FGD 2, Mohale's Hoek, February 2022

The trend of increasing female migration is further compounded by the related return migration of male migrant labourers from traditional migrant destinations and sectors such as in the mining sector of South Africa. Most Basotho labour migrants are affected due to downsizing, mainly as part of economic reforms and the impact of COVID-19. From the qualitative insights and responses outlined in Table 4, it may

thus be deduced that people migrate for different reasons in the context of climate change and environmental degradation impact on livelihoods and general economic hardship. The evidence suggests a complex interaction of factors with climate change impacts as catalytic drivers of human mobility in Lesotho. These observations may be seen to also align with general theoretical explications (see Figure 1) and empirical discussions that there is no direct causal link between climate change and migration (Afifi et al., 2015; Piguet and Laczko, 2014; Ionesco et al., 2017).

In this light, the implications for policy will be to envision a holistic approach to addressing the mobility dimensions of climate change and environmental degradation. The focus should also be to enhance the potential of well-managed migration as a viable climate adaptation strategy. This will also entail designing specific measures for the protection of vulnerable groups who may be on the move due to loss of livelihoods, economic hardship or even trapped and unable to move due to the effects of climate and environmental change.

4.5. Impact of climate/environmental change–related migration

The different migration patterns that have evolved as livelihood strategies over the years have also translated into different mobility outcomes or had varying impacts on households, communities and livelihoods. These impacts can be interpreted as being both negative and positive. In appreciating the impact of migration on households, the issue of children left behind and being unable to work or fend for themselves is identified as a major outcome or impact of migration (see Table 6).

Table 6. Impact of climate-related migration

Household		Livelihoods	
	%		%
Children/Orphans left behind – unable to work to feed	33.3	Loss of livelihoods/deportation	44.4
Changing household structure – breadwinners/economically active leave (families struggle to feed/survive)	28.6	Human trafficking/overcrowding and poor water sanitation	33.3
Able to take care of families – job opportunities/remittances	19.0	No market/decrease in demand for goods	22.2
Death of family members/ Insufficient funds for burial/funeral	14.3		
Conflict over scarce resources (water) and food	4.8		

Source: Authors' field work, 2022.

Earlier patterns of migration in Lesotho were mostly dominated by male household heads as “breadwinners” of the family, moving to work in the mines and plantations in South Africa. But in contemporary times, women are now increasingly also migrating to urban areas of Lesotho, and to South Africa to participate in the labour economy as domestic workers, as well as factory workers in the garment industry or as farmhands. Besides the impact of long-term HIV/AIDS–related high mortality in Lesotho, the migration of parents as a response to climate change impact on household income and food security has resulted in changes in household structure. This has seen elderly siblings as old as 13 years taking care of younger ones. Besides vulnerability to the impact of extreme climatic events and starvation due to food scarcity, it is intimated that these children (especially girls) often become susceptible to sexual exploitation or trafficking.

Due to bad weather conditions such as drought, most especially in rural areas, it kills some vegetables that people depend on and as a result, parents migrate to urban areas and leave kids alone. So those kids are prone to human trafficking. Some parents may decide to go to work in South Africa to provide a living for the family, but on the other hand leaving kids vulnerable, especially girls. Men may promise to buy them meals and use them or men promising to send them to school, which they do not do but rather use them for human trafficking. Anciently, we used to depend on farming, but nowadays because of climate change, harvest is not good. As a result, women are now the ones who are leaving to seek for jobs because there are no jobs as those who used to work in the mines are retrenched.

– Female key stakeholder 6, Stakeholder FGD, Maseru, 2022

[S]uch-child headed families will become even more vulnerable, as the elder one may also decide to go look for jobs to support his/her siblings. If it is a boy, he may decide to find a job as a herder from a farmer who has livestock. If it is a girl, they find themselves engaging in sex at a young age or without true intentions to do so, which may cause them to suffer from depression. For a boy-child who has been hired as a herder, you find that the livestock owners ill-treat such a child when they realize they do not have parents and are on their own. You find that sometimes they are not given food and/or their payment. When the time for payment comes, they threaten to beat or kill them. This child may eventually end up wandering and going from one family that has hired him to another.

– Male participant 4, Vulnerable population FGD 2, Mohale's Hoek, February 2022

Climate change does not only affect communities of origin in Lesotho, but also the major areas of destination in South Africa. This effect has resulted in migrant farmworkers losing their jobs due to the associated impacts. Even for Basotho who engage in seasonal migration to work on Ceres plantations or to help with farm harvests between May and June, climate impact and much recently, the impact of

COVID-19 has also restricted movements. This has led to the loss of jobs and a drastic decline in remittances and household income, further impoverishing households and increasing the propensity to migrate in rural communities.

For those who have lost their livelihoods and inability to cope in South Africa, many are also often confronted with deportations back to Lesotho, with sometimes nothing to show for migrating or leaving home to seek economic opportunities (see Table 5). In some instances, migrants who do not have the means to return to Lesotho remain stranded in South Africa. Moreover, migrants sometimes do not have money for taxes they would need to pay to the Lesotho Revenue Authority at the various borders or crossings. As a result, they end up being trapped in South Africa and under harsh living conditions or trafficked by criminal gangs. Another perceived impact is also that those who migrate tend to spread infectious diseases and COVID-19. In this instance, the migrants might come back and infest the communities with diseases or even spread diseases in the host or local community of destination.

Climate change also affects our siblings who work in Cape Town (Ceres). Because when the flood hits, they lose jobs. Some of them are reluctant to come back home and stay in slums in South Africa as irregular migrants, thereby causing bad interrelations between Lesotho and South Africa. Migration also brings about diseases such as COVID-19. Climate change affects health in a way that when there is drought, there arise some diseases; for example, cholera because people are not drinking clean water. Some diseases are infectious, so when people are sick due to climate change and migrate to other areas, he or she might infect the host community members.

– Female key stakeholder 6, Stakeholder FGD, Maseru, 2022

Aside from the negative impacts on households and livelihoods, there are also positive aspects related to human mobility in the context of climate change that were identified during the FGDs. Some participants emphasized the positive meaning of remittances for individual households to cope with economic hardship, and also for Lesotho's GDP. The potential of migration as a coping strategy to the adverse effects of climate change is not limited to the use of remittances to counteract food insecurity. Remittances also serve to provide the income for household provisioning, including paying school fees and other related expenditure and thereby contributing to general poverty reduction in Lesotho.

At the national level, there seems to be renewed interest in addressing the human mobility dimensions of climate change, environmental degradation and related hazards. The renewed efforts may be informed by the growing recognition that well-managed migration has the potential to enhance climate adaptation, poverty reduction and long-term climate resilience. All the same, the spate of return

migration to rural communities and in how far returnees successfully reintegrate has also become a matter of concern for policymakers. This is because return migration in Lesotho has had different implications for both returnees and communities, as well as for climate adaptation and efforts at sustainable reintegration. The following section thus examines the impact of return migration and the associated implications for climate change adaptation.

4.6. Migration, return and (re)integration in the context of climate and environmental change

Amidst the contributory role of climate and environmental change in accentuating existing migration patterns in Lesotho, the return migration is also on the rise. This increasing return migration is in part attributed to the impact of COVID-19 and climate change in traditional destination areas in South Africa and in Lesotho. Whereas only a few research participants expressly admitted to just returning from South Africa due to the impact of COVID-19 on job losses and marital divorce at the time of this study, some more recent studies have pointed to increasing return migration in the past few years (Mensah and Naidoo, 2011; Morojele and Maphosa, 2013; IPC, 2020; IOM/Skillshare, 2020). Even with the empirical findings from these studies, the high majority of research participants with migration experience as recorded in the context of this study may also implicitly translate or be used as an indication/proxy of return migration or represent as returnees.

Return migration has had implications for both rural communities and returnees. As shown in Table 7, one main effect of return migration is that returnees tend to increase the population and burden on the already limited resources in local communities (41.9%). This burden mainly stems from the fact that returnees most often come back with little or no financial capital and thereby cannot provide any support to the household. Most of these returnees tend to rather add to the number of mouths to feed. The lack of job opportunities (92.3%) also means that returnees add to the high rate of unemployment across districts in the country.

Table 7. Return migration, climate/environmental change and impact on communities

Impact of returnees				Climate/Environmental change impact and returnees			
Home/Local communities	%	Labour markets	%	Impact of climate/ environmental change and hazards on returnees	%	Impact of returnees on climate/ environmental change adaptation	%
Spread of diseases (sexually transmitted infections, COVID-19, tuberculosis, HIV) and increase in mortality/death rates	25.8	Lack of jobs/increase in unemployment	92.3	Unable to adapt climate change/ drought impact on agriculture/lack of jobs and money	70	Increased population pressure on environmental degradation – soil erosion, grazing livestock on catchment area	36.8
Increase in population/burden as dependants/extra mouths to feed	41.9			Skills mismatch/unable to apply skills and climate change (drought) impact on livelihoods	20	Difficult to engage on adaptation projects – not open to alternative livelihoods	21.1
Increase in gender-based violence	3.2	Market competition	7.7	Collapse of climate-related business – no profits (due to climate change impact on yields and incomes/lack of governmental support)	10	Lack of knowledge on climate/ environmental change – ignore climate adaptation plans	42.1
Increase crime/theft/looting of shops for food	22.6						
Bring money/stimulate local economy/renovation of homes	6.6						

Source: Authors' field work, 2022.

Besides the relatively few returnees who bring money to support families and by their spending stimulate the local economy (6.6%), the complaint is also that they bring and spread infectious diseases, and thereby contributing to the high mortality rates in the communities (25.8%). The activities of returnees in not having jobs or money upon return have also been implicated as accounting for the increase in crime relating to theft, looting of shops for food and increase in gender-based violence.

With regard to climate change impact on returnees and potential to undermine sustainable reintegration into local communities, it is found that most returnees, after having lived for long in South Africa, often find it difficult to cope or adapt to climate change and natural hazards upon return (see Table 7). This struggle to adapt to climate change and drought is partly often due to lack of jobs and income, as well as the apparent losses or failing agriculture with drought impact (70%). On the other hand, the seeming struggle to cope is also primarily attributed to the lack of skills and skills mismatch.

The claim is that returnees are unable to apply the skills they have learned during their sojourn and work in some specific sectors, which are unavailable in the communities of return. Given the lack of knowledge on techniques for farming and coping with drought impact on agrarian livelihoods, many returnees are unable to manage or cope. For those who are able to venture into small-scale businesses of their own, they are unable to break even or sustain the business due to the direct and indirect effects of climate change (mostly drought) on yields and incomes of people, and thereby the impact or collapse of their businesses.

However, it must be stated that the impact of return migration is not only negative. It is also emphasized that returning migrants also “import” new knowledge, new skills and different perspectives (social remittances), which can have a positive impact on agricultural and economic development in Lesotho. Aside from the money they bring to support and renovate homes that can make them climate resilient, the skills and manpower could be the attraction to establish factories to stimulate job creation and economic empowerment for poor rural dwellers.

On the possible role of returnees in actually contributing or exacerbating the state of climate change impact and environmental deterioration in Lesotho, it was widely argued that returnees are often clueless about effects of ongoing climate change and environmental degradation. They sometimes just ignore or do not cooperate in adhering to climate change and environmental degradation mitigation measures or adaptation plans (Table 6). Desperation to make a living, lack/limited livelihood and inadequate governmental support to facilitate or enforce conservation and adaptation measures were advanced as plausible explanations to the seeming lack of cooperation or knowledge on the part of returnees. Nevertheless, the addition of returnees to the local population also puts pressure on the environment and hence, aggravating land degradation in communities.

From the foregoing discussion on the nature and impact of return migration and climate change in Lesotho, what can be deduced is that appreciating the symbiotic relation between return migration and climate change is of essence in facilitating sustainable reintegration, addressing climate/environmental change and related impacts in Lesotho. It draws attention to the potential of well-managed (return) migration and sustainable reintegration in contributing to poverty reduction, job creation, food security and climate resilience in Lesotho.

In talking about the potential of well-managed migration and mobility in contributing to climate change adaptation, the question then arises as to the promise of planned relocation as a proactive and viable strategy to climate adaptation or DRR in Lesotho. As such, the views of research participants were sought on their knowledge of any planned relocation exercise and the contribution to climate adaptation in Lesotho. The findings are further elaborated in the next section.

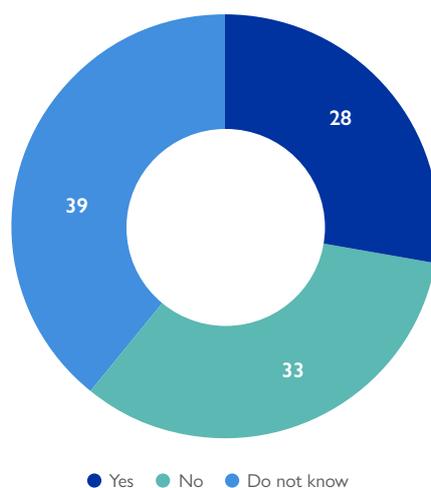
5.

**Planned relocation/
resettlement, climate/
environmental change
and effects on local
communities**

Despite the seeming promise of planned relocation as a tool to enhance climate adaptation, DRR and to safeguard human security in vulnerable or hazard-prone areas (McAdam and Ferris, 2015; Bower and Weerasinghe, 2021), there are also reservations in view of the challenges that often constrain or affect the expected outcomes of relocation exercises (Foresight, 2011; Arnall, 2019). Nevertheless, planned relocation is gaining prominence in international policy discourses and DRR as an important and proactive tool to enhancing protection and promoting human security in vulnerable areas (Ferris and Weerasinghe, 2020).

This study also solicited the views of research participants on planned relocation or resettlement¹⁶ and its potential as a tool to help address the negative impacts of climate change and environmental degradation in Lesotho. A couple of research participants indicated knowledge or awareness of planned relocation/resettlement schemes in Lesotho. As illustrated in Figure 7, more than half of the respondents admitted to not being aware or entirely clueless about relocation or any resettlement schemes in Lesotho.

Figure 7. Awareness of planned relocation/resettlement



Source: Authors' field work, 2022.

While the seeming limited awareness of climate-induced relocation or resettlement exercises or episodes in Lesotho may not be surprising, the few notable ones have mostly been development-induced relocation or resettlement schemes rather than due to climate or hazard risks. This has often been due to either dam construction, mining or extension of electricity grid to rural areas. A notable relocation or resettlement in Lesotho has been the relocation/resettlement of communities around the Mohale Dam and Katse Dam catchment as part of phase 1 of LHWP (Sephula, 2011; Thamae, 2020). Relocation was mainly done in stages with the communities being mostly resettled within the basin, foothills and several others to Maseru (see Devitt and Hitchcock, 2010:85). Other communities around

¹⁶ Relocation and resettlement used loosely to refer to planned removal or movement of people from vulnerable or affected areas to other areas perceived as safe from the perceived risks.

Hlotse/Maputsoe (Zone 2) and Peka/Mapoteng (Zone 3) have been earmarked for possible resettlement in the context of Lesotho Water Sector Improvement Project (second phase) (see Aurecon, 2018), as well as affected communities as part of the Lesotho Renewable Energy and Energy Access Project (Government of Lesotho, 2019a). Recent instances of people in mining areas demanding relocation (Patising, Mokhotlong) or others refusing to be relocated (Kao Communities) have also been reported.¹⁷

Table 8. Planned relocation/resettlement and climate change adaptation

Contribution of planned relocation/resettlement to climate change adaptation		Yes – Explanation		No – Explanation	
	%		%		%
Yes	83.3	Protection from harsh environmental conditions	80	Overpopulation/overgrazing – leading to soil erosion and land degradation	71.4
No	16.7	Offer training on agriculture – contribute to reducing carbon emission	20	Not easy to adapt to new environment	14.3
				Decline in farmland due to population increase	14.3

Source: Authors' field work, 2022.

Research participants generally have some positive expectations in regard to the potential of planned relocation/resettlement to contribute to climate adaptation in the country (Table 8). The significant majority (83.3%) were affirmative that planned relocation/resettlement is a viable strategy that could allow for protection from harsh environmental conditions. The view is also that since the movement is always a planned exercise, elements of training in good agricultural practices could contribute to stemming land degradation and also reducing carbon emission.

However, several others are quite doubtful and even dismissive that any form of relocation or resettlement could have a significant contribution to climate change adaptation in rural communities. If anything, relocation or resettlement of any kind would rather exacerbate land degradation in the local communities. This is in the view that it would rather lead to overpopulation, excessive exploitation of the natural resource base and fragmentation or decline in farmland. Secondly, persons being located may not be able to adjust to the weather/environment or even integrate in their new location.

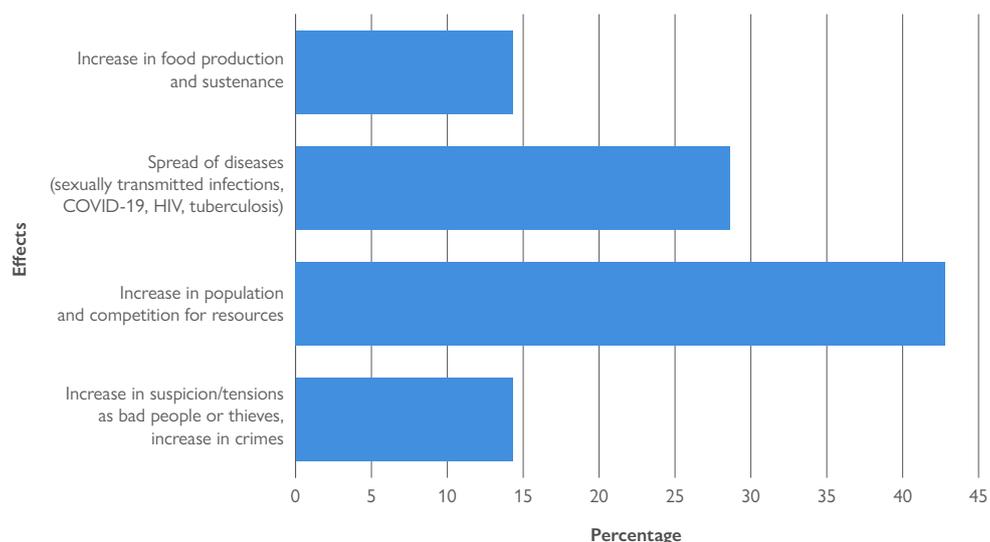
¹⁷ See <https://lestimes.com/villagers-demand-relocation-from-letseng/> and <https://lescij.org/2018/06/28/kao-mine-villagers-in-relocation-feud/>.

A number of people have been displaced due to development, so as people are being displaced from rural areas sometimes to Maseru, it is a planned displacement, not a forced one. At the end of the day, it is migration. We move them from Katse and Polihali. Those people are going to be moved from those areas where there is going to be a project, sometimes to Maseru here. When you bring them here, the climate itself, here it is a bit hot and some other things they are not used to. Up there in the highlands where they come from, it is colder. We bring them here on developmental projects where we have internally displaced them without considering certain things as people or things they subsist on [...] that person who used to lead a certain lifestyle in the rural areas, depending on firewood for cooking and other things, when you bring that person here at Thaba-Tseka (at Ha Thetsane), their life cycle automatically changes since the way this person used to live in their original area was different, that is migration. You are migrating this person through internal displacement because of the developmental activity. Displacement can be forced; it can be planned like the ones by Lesotho Highlands Development Authority; you plan that you will be moving people from one area to another. This issue also causes discomfort in that due to drought when they are placed in these new areas.

– Female key stakeholder 6, Stakeholder FGD, Mohale's Hoek, February 2022

While these mixed reactions give an impression of the reservations of people regarding the relevance of planned relocation/resettlement in Lesotho, they also beg the question as to the perceived effects on the receiving or local populations.

Figure 8. Perceived effects of planned relocation on local/receiving communities



Source: Authors' field work, 2022.

Most participants are of the view that planned relocation/resettlement has often served to increase population and competition for resources in communities of destination (43%) (Figure 8). Competition for scarce resources with the local population is often a basis for tensions to escalate into violent conflicts. Besides the

increase in suspicion of the newly arrived as criminals or as elements of crime, it is also suggested that these persons being relocated tend to bring diseases with them. These observations or perceptions seem to cast a picture of general discontent and reservation as to the potential of planned relocation or resettlement in contributing to climate adaptation and DRR in Lesotho.

Nevertheless, several others were more positive in stating that planned relocation or resettlement often contributes to increased food production and sustenance for both persons being relocated and the local community. This is because the vulnerable persons being located may no longer be exposed to the threat on their livelihoods, and actually have access to land and the necessary support to be able to produce. Another consideration is that because these kinds of movements are often planned, the affected persons being relocated often receive support or even cash transfers as compensation or to help them integrate in their environment.

While the effects or challenges identified markedly resonate with similar observations in other jurisdictions in rural Africa and Asia (Arnall, 2019; Bower and Weerasinghe, 2021), planned relocation or resettlement schemes are still seen as better alternatives to promoting human security and DRR in Lesotho. Indeed, Lesotho's Initial National Communication on Climate Change advocated the establishment of social funds, special employment schemes, household restoration and resettlement schemes as strategies to deal with climate change impact and DRR in Lesotho. These commitments have been re-echoed in the draft Lesotho National Migration and Development Policy (see Text box 1). As one of its key strategies, the Policy has outlined the resolve to address the impact of migratory movements caused by climate change and environmental degradation to include resettlement, integration into host communities and related responses (Government of Lesotho, 2021).

Given the obvious economic challenges, as well as the impact of climate change and disasters in Lesotho, adopting a holistic or whole-of-government approach to enhance climate adaptation on the one hand, and sustainable (re)integration will be key to promoting climate resilience in the medium to longer term, and improving socioeconomic well-being in vulnerable communities of the country. A plethora of measures to promote climate adaptation in rural communities have been proposed by research participants.

6.

**Proposed measures
to enhance climate
change adaptation**

Despite the concerted global efforts to stem global warming and environmental degradation, the expectation is that climate change will continue into the near future. What this means is that vulnerable countries like Lesotho will continue to witness and bear the brunt of climate change impacts and natural hazards. The views of research participants were sought as to what measures could be taken to enhance climate adaptation and long-term resilience in vulnerable rural communities.

From Table 9, a host of overlapping measures for the different climate events or related disasters have been proposed for immediate action and for long-term climate change adaptation. In regard to heavy rainfall, the proposition is for the Government to support the construction of dams and reservoirs to allow for water harvesting (in both the immediate and long term). In terms of stemming the accompanying flash floods, most of the participants proposed the design of furrows or building trenches that will allow for channelling run-off water away from communities or even for irrigation purposes.

A much more long-term perspective for addressing heavy rains and floods is the call for soil conservation and environmental sustainability through rotational grazing and active tree planting. To this end, the call is for the Government to immediately embark on creating awareness about ongoing climate and environmental change and the associated impacts. By this, the suggestion is for the relevant government agency to collaborate with development partners to encourage tree planting and environmental sustainability in the rural communities. The proposition for environmental sustainability can be seen to overlap with those that have been made in terms of controlling land degradation, biodiversity and water conservation. In relation to biodiversity conservation, for instance, research participants particularly called for the appropriate authorities to enforce punitive measures for persons who are caught killing game and hence, an immediate stop to shooting and killing wild birds like *lipela*. Yet again, this will depend on widespread sensitization and awareness creation on the importance of biodiversity conservation for ecosystem health and services.

Table 9. Proposed measures to enhance climate change adaptation

Event	Measure		Measure	
	Immediate term	%	Long-term	%
Heavy rainfall	Build dams to store water for irrigation	20	Construct protected wells/reservoirs	45.5
	Water harvesting/design furrows	30	Build trenches and diversion furrows to control flooding	36.4
	Awareness-raising on climate/environmental change and water scarcity/government and ministries support tree planting	50	Rotational grazing/soil conservation (silt traps)	18.2

Event	Measure		Measure	
	Immediate term	%	Long-term	%
Drought	Build dams and tanks for water storage	25	Build dams/tanks/boreholes for irrigation and use in communities	62.5
	Rotational planting/soil conservation/avoid overgrazing	25	Conservation agriculture/planting of grass	25
	Skills training/alternative livelihoods	12.5	Build greenhouses	12.5
	Governmental support to find water/construct tanks/awareness on water conservation	37.5		
Storms/Strong winds/Snow	Build wall fencing around houses	50	Build hedges around houses and plant more trees in communities	33.3
	Government support to help better roofing of houses	50	Build strong housing that can withstand harsh climatic conditions	66.7
Land degradation/biodiversity/water conservation	Avoid/stop deforestation/Encourage organic subsistence farming	40	Plant more trees/Conservation agriculture for climate change adaptation	40
	Stop killing wild birds	20	Apprehend and arrest people who kill wild animals	20
	Government/ministries provide tanks for water storage	40	Construct boreholes in villages/WASCO extend water supply to villages	40

Source: Authors' field work, 2022.

On the issue of recurring drought in Lesotho, the immediate and long-term actions proposed to alleviate or reduce the associated water scarcity is for the Government and communities to embark on aggressive construction of water tanks and dams. This will allow for water storage and long-term availability in times of acute water scarcity during a drought. More specifically, the advocacy is to construct boreholes and big dams to hold water for irrigation, agriculture and household use in the long run. In addition to advocating the construction of greenhouses as a way to boost food production in the rural communities during a drought disaster, research participants identified skills training of vulnerable populations to be able to venture into alternative livelihoods as a way to cope with the effects of drought.

While the proposed measures outlined in Table 9 highlight the perspectives of the research participants as to what should be done immediately and in the long term to address climate and environmental change impact in Lesotho, these are also measures that have been captured in existing climate-related and development policies in the country. For example, NCCP (2017–2027) outlines one of the key strategies to enhance social security and manage climate-related migration to include ensuring environmental sustainability through improved rangelands and forestry management in rural areas (see Text box 4).

To address drought and the challenge of water and food scarcity, the Policy also advocates investment in “agriculture in vulnerable areas, such as developing crops and livestock that are pest and drought resistant, early yielding and culturally acceptable, and promote water harvesting, to help curb rural–urban migration” (LMS, 2017a:39). Given these overlaps, a more concerted commitment and action would be to effectively translate these measures that are already also prominently captured in existing policy frameworks on the ground. This would allow for long-term climate adaptation and resilience in vulnerable rural areas.

7.

Conclusion and recommendations

This study sought to explore the interlinkages between environment, climate change and migration in Lesotho. This is to contribute to the sustainability of (re)integration and planned relocation as adaptation strategies to climate change. From the findings, it is evident that climate change, natural hazards and sustained environmental degradation are serious challenges confronting people in Lesotho. Given the country's vulnerability, the adverse impacts of climate and environmental change have affected food security and loss of livelihoods and continue to derail efforts at poverty reduction in Lesotho. This is in view of the fact that the majority of the population who live in rural areas of the country depend on rain-fed agriculture and the natural resource base.

On the other hand, the flow of remittances as an important source of household income and foreign exchange has also significantly declined in the past few years because of the large-scale retrenchment and loss of jobs due to COVID-19 and climate change impact in both South Africa and Lesotho. The compounding effect has been the sustained migration of people from rural communities to urban and peri-urban areas in search of livelihood opportunities, which are also limited or non-existent. The observation is also that many Basotho migrants are returning to rural communities, but are finding it difficult to reintegrate due to several factors. Considering the current circumstances of the COVID-19 impact on national economy and critical sectors in South Africa and in Lesotho, it is highly unlikely that returnees will go back in the near future. Even if there will be migrations at all, the likelihood is that these migrations will be towards urban and peri-urban areas in the interim.

What can thus be inferred from the study findings is that there is no direct cause link between migration, climate change and environmental degradation in Lesotho. However, the impact of climate change, environmental degradation and related hazards serve to amplify existing mobility patterns and endemic poverty in vulnerable rural communities. Although existing climate, migration and national development policy frameworks have variously outlined strategies at enhancing DRR, social protection and tapping into the potential of well-managed migration as an adaptation strategy and tool for economic development, translating these strategies on the ground has remained a challenge. Moreover, promoting sustainable (re)integration and climate resilience will require an integrated approach that will consider the different sectors of the economy and aspects of the migration process. Based on the insights gathered from this study, the following recommendations are hereby outlined to contribute to sustainable (re)integration, climate adaptation, inclusive and poverty reduction in Lesotho.

7.1. Recommendations to enhance climate adaptation and sustainable (re)integration

The following are key policy recommendations to reduce climate change impact on migration and enhance adaptation and sustainable livelihood through mainstreaming migration into the climate change and disaster risk management policies/strategies in Lesotho.

7.1.1. Policy/Strategy framework

■ **Design national green growth economic strategy for green and sustainable jobs and climate resilience:** Given the growing impact of climate change and COVID-19, a shift to green economy has been widely recognized as a key growth strategy to recover and build back better and resilient societies. In taking cues from Rwanda¹⁸ and Senegal,¹⁹ the Government could consider developing an integrated national green growth strategy to mainstream or guide the green transition across the different sectors of the economy and for sustainable and inclusive growth.

Other than a shift to conservation agriculture (including organic farming), greening the power sector through renewable energy can provide the greatest potential to create thousands of green jobs. Currently, Lesotho derives only 72 MW of hydropower from the Muela Hydropower Plant and other hydropower plants in Mantsonyane, Mokhotlong, Tsoelike and Semonkong, which are still unable to meet the domestic demand for electric energy. Yet the country has the potential to produce 450 megawatts from hydropower and more energy from other renewable sources.

As Lesotho is already endowed with water resources and topography, hydroelectric power generation from both existing dams and the construction of new dams will allow for the generation and extension of electricity to rural areas. The construction and production of hydropower will provide direct and indirect green jobs to returnees, labour migrants and rural dwellers. These jobs will include dam construction workers, drivers, electrical and mechanical engineers, technicians, wildlife habitat specialists/managers, security personnel, recreation planners/managers and natural resources managers.

On the other hand, the development of solar energy as part of the ongoing Lesotho Renewable Energy and Energy Access Project will boost job creation. Developing solar energy in Lesotho will require engineers, photovoltaic installers, servicing technicians and marketing services. As exemplified in the case of the National Programme of Biodigester of Burkina Faso,²⁰ which was developed as part of the bigger Africa Biogas Partnership Programme,²¹ another option could be to strike a

¹⁸ See www.rema.gov.rw/rema_doc/RGG&CRS%202011/Rwanda%20Green%20Growth%20Strategy%20FINAL%20high%20res.pdf.

¹⁹ See https://archive.un-page.org/files/public/rapport_snpev_version_final.pdf.

²⁰ See https://ndcpartnership.org/sites/default/files/Country_Brief-Burkina_Faso_How_to_Create_Climate_Resilient_Development_in_Rural_Areas_%28English%29-November-2020.pdf.

²¹ See <https://snv.org/project/africa-biogas-partnership-programme-abpp>.

public–private partnership to encourage the production of biogas through the use of animal droppings and organic waste as clean domestic fuel and for lighting. The effluents from the biogas could be used as potent organic manure for conservation agricultural production or for export.

Besides contributing to reducing greenhouse gas emission, the construction of biodigesters, maintenance and marketing can also unleash thousands of jobs and climate-resilient development in rural communities. A policy focus on mainstreaming green growth strategies as part of the draft National Migration and Development Policy and upcoming national development planning would accelerate the creation of green and sustainable jobs that are not only decent, but will promote inclusive growth and sustainable development. The ability to take up the green jobs created will mean the need for green skills availability and development.

7.1.2. Programming/Operationalization of existing strategies

■ **Promote skills training for returnees and labour migrants to enhance their employability and address skills gaps:** A major issue that has been a constraint to sustainable reintegration of returnees is the lack of (marketable) skills or skills mismatch within the labour market upon return. While some of the returnees come back with skills, the majority are often low-skilled migrants who have been working mainly in the informal sector or as farm or factory hands in South Africa. Even for mineworkers who may have acquired some skills by working in the mines, their skills often tend to be a mismatch in the job market in Lesotho. In the context of NSDP II, the Government has earmarked the need to strengthen human capital through investment in health, nutrition, skills development, social protection and migration. Thus, as part of a restructuring of the education sector and curricula, the Government could partner with the private sector and development partners to pursue vigorous skills training and development through technical and vocational education and training.

Given the potential of the green economy to create thousands of green jobs, this would also imply the need to develop a sectoral green skills intelligence mechanism for ascertaining the skills gaps and developing green skills to fill up the green jobs that would be created. To this end, special attention could be extended to vulnerable groups like women, young people and persons with disabilities. As exemplified in Senegal (see Text box 7), attention could be given to returnees, as well as women, youth and persons with disabilities as the most vulnerable groups to climate change impact. Like the *Emplea Verde* and *Emprende Verde* (Green Entrepreneurship) programmes in Spain (see European Centre for the Development of Vocational Training (Cedefop), 2018:24), the support for the vulnerable groups mentioned could be in the form of promoting incubation hubs for green start-ups, financed apprenticeships and capital (financial and tools/equipment) to start up after their training.

Text box 7. Focusing on vulnerable groups to promote decent work, just and inclusive growth

SNEV Strategy (2015–2020) of Senegal is a government-led strategy to increase the creation of green and sustainable jobs across the different sectors in Senegal. The aim is to accelerate job creation and build a resilient economy for the future. One of the priorities of the Strategy is the development of green skills and employment for young people and women in the country. SNEV Strategy had targeted the creation of 5,000 green jobs by 2022. But by mid-2019, more than 2,000 green jobs were created for youth and women (ILO, 2019).

Among other initiatives like the distribution and maintenance of mobile kiosks with solar panels, SNEV Strategy has provided skills training and capacity-building for people, with a specific focus on youth and vulnerable groups like women and poor households. In view of the considerable impact that SNEV Strategy has had in Senegal, it is being adopted as a good frame of reference by countries like Burkina Faso and Ghana in guiding efforts at promoting green jobs and sustainable development (Future Policy, n.d.).

Empowering both returnees (internal migrants and international migrants) and migrant workers with (marketable) skills would allow for them to venture into alternative livelihoods, increase their employability in the green economy and enhance climate resilience in the medium to long term. In this regard, PPF²² – which is being implemented within the framework of LNDC – could be fine-tuned to give priority funding to green (agro-based) start-ups with the potential to create jobs and contribute to sustainable development.

■ **Establish a special desk for investment promotion and support centres for the diaspora and returning Basotho at the district levels:** Given the high levels of unemployment and vulnerability of the agricultural sector, the LNDC could consider establishing a desk with a focal point within the investment and trade promotion section and support centres across the districts to provide information, guidance and counselling on strategic investment for sustainable businesses and job creation. As already outlined in NSDP II, the strategy is to attract investment and accelerate the ease and days (such as five days) with which to obtain permit or licence to trade or do business in Lesotho.

The idea of the special desk and support centres is to advise or provide counselling to returnees from Basotho diaspora who are planning to return and immigrants on how to invest their money for sustainable and profitable businesses. As part of the mandate of this special desk within LNDC, the focus should be to first develop

²² See www.lndc.org.ls/content/project-preparation-facility.

a collaborative legislation and mechanisms with South Africa and other SADC countries to facilitate the transfer or portability of social security benefits (pensions/compensations) to Lesotho. With the support of the Government, the various embassies of Lesotho could serve as a medium to facilitate the process of transfers or allow for cash deposits that could directly be picked without any charges at the proposed investment support centres at the district level.

On the other hand, this special desk and district-based support centres could offer information to Basotho diaspora who may not be planning to return but wish to invest towards the economic development of the country. The provision of information and advice could be complemented with a grant or loan schemes in the frame of the PPF for those who may have viable business ideas that would also allow for environmental conservation and job creation as avenues for promoting climate resilience in rural areas. These support centres at the district level could harbour incubation hubs for (green) micro-, small and medium-sized enterprises development. With women increasingly migrating because of climate change impact and leaving children behind, the target of the proposed grant and loan scheme will be to support women in engaging in small-scale businesses to allow for financial empowerment and income to support household provisioning.

7.1.3. Institutional framework

■ **Ensure stronger cooperation and coordination between the different ministries and key actors, and mainstream MECC into sectoral programming to enhance adaptation capacities:** Vulnerable populations often have some capacity to cope with the adverse effects of climate change and environmental degradation. However, this capacity is fairly limited when it comes to adapting to the long-term consequences of ecological change. Those capacities can only be enhanced if a stronger cooperation and coordination between different policy fields is achieved; this includes, among others, environment, climate change, migration, rural development and urban planning.

While the issues of mainstreaming climate change impact, migration and gender have been reiterated, the observation is that government agencies, ministries and different sectors tend to work in silos without recourse to what others are doing – in terms of enhancing an integrated approach to DRR and mobility dimensions of crisis. Other than adopting a whole-of-government approach to allow for cooperation and synergy across the different government agencies and actors, MECC could be effectively mainstreamed as part of departmental programming by making sure to involve relevant agencies and integrate issues of MECC and gender when designing projects and programmes. However, it is not only about vertical cooperation; likewise, the cooperation between regional/international, national, subnational and local actors needs to be improved.

While effectively mainstreaming MECC across the different national agencies would also entail capacity-building and awareness creation among actors, the Government should first consider conducting a thorough capacity and needs assessment for MECC across the different national agencies. In this regard, the DRR and Climate Change Adaptation Integrated Human Mobility Assessment Tool developed by IOM, CADRI, Platform on Disaster Displacement, the NRC and UNHCR could be deployed for this assessment with the support of IOM and CADRI.

Aside from the work of the National Climate Coordination Committee, the Government could consider setting up an interdepartmental working group or technical working group to solely superintend mainstreaming MECC across the different agencies. In addition, the role of SADC in providing the framework for negotiations to promote safe and orderly cross-border human mobility within the region will be of essence, given the economic role of labour mobility and the ecological consequences of (return) migration.

■ **Enhance (shock-responsive) social protection and proactive responses to climate change and disaster impact:** The majority of the population of Lesotho residing in rural areas are highly dependent on rain-fed agriculture and the natural resource base, and hence high vulnerability. But with the increasing occurrence of extreme climatic events and the associated impact on the population, existing social protection schemes should look to increase support and cash transfers in enhancing poverty reduction and also facilitate accelerated recovery in the immediate aftermath of a natural disaster. The Ministry of Social Development, the Department of Gender and the DMA should be resourced and given the capacity to effectively respond to disaster impact and needs of the poor.

Hence, other than cash transfers or provision of relief items, a proactive approach should be taken to construct water reservoirs, furrows to divert surface run-off and the siting of food storage facilities in rural communities. Alternatively, infrastructural development could be to channel water from dams that have been constructed as part of LHWP to local communities for irrigation agriculture. Besides the Ministry of Agriculture, the Government could partner with the private sector to sensitize farmers on climate-smart agriculture, improved and climate-resilient seeds and provide the needed farm inputs for agriculture.

■ **Improve overall education and mainstreaming of climate, environment and sustainability into national development and sectoral planning:** Lesotho is severely challenged by the adverse effects of climate change and environmental degradation. However, the knowledge on these issues among the local population and officials is often rather limited. In addition to awareness creation on the causes and impacts of climate change and land degradation, the strategy should be to have community-based environmental and biodiversity conservation and rangeland

management. While these issues could already be integrated into educational curricula at the basic school level, the community-based climate adaptation projects, sensitization and environmental conservation should be participatory by involving all key stakeholders at the local level.

As piloted in the Niger, within the context of World Bank's Community Action Program,²³ the Government could – as a long-term climate adaptation measure – collaborate with development partners and the private sector to undertake aggressive afforestation. Aside from planting economic trees to restore degraded lands and for rural dwellers to derive direct benefits from them, they could also be used to sell carbon credits to generate income that will directly benefit farmers or pursue development projects for local communities. A project of this nature could focus on engaging locals and returning migrants to undertake planting and maintenance of the trees. The tree planting could be carried out in the form of *fato-fato* to gain some income or more like a working-for-food approach. This could help in restoring degraded lands, carbon sequestration, while providing alternative livelihoods, food and direct income from the sale of carbon credits. In all of this, a significant consideration or priority should be on the vulnerable groups – particularly in unlocking the potential and role of women in contributing to environmental conservation and poverty reduction in rural communities.

7.1.4. Data collection/availability for planning

■ **Improve the data capture and availability for planning, climate adaptation and sustainable (re)integration:** As in many countries or in regional and subregional contexts, data on mobility processes into and out of Lesotho is quite limited. However, a better collection of disaggregated data concerning various migration types and their social, economic or ecological effects would be an essential precondition for the other policy recommendations discussed. The same is valid for green jobs: local and context-specific data on the potential for green jobs creation (green skills intelligence or anticipation) in various sectors, as well as for better planned relocation or resettlement outcomes.

Although most planned relocation/resettlement exercises in Lesotho are often development-induced, the observation is that most of them are often done without recourse to the socioeconomic implications for the affected persons and the local or destination communities. Aside from the inability to integrate because of weather and environmental differences between the destination and places of origin, affected persons are often unable to cope or access resources to continue with their livelihoods. This often causes resentment and also tensions with local population in the destination, as well as pressure on the environment – hence, exacerbating land degradation. In this light, adequate collection and availability of empirical data could allow for planning, disaster response or targeted skills training/interventions

²³ See <https://blogs.worldbank.org/nasikiliza/niger-crazy-idea-restore-degraded-land-pays>.

for specific sections of the population. This could prove vital to enhancing successful integration of persons being relocated or resettled in the local communities, as well as long-term climate resilience.

To enhance social cohesion and inclusion between local populations and populations being relocated, the relevant authorities could – as part of the relocation process – integrate community entry in the planning phase. This could be in the form of consultation with local chiefs and opinion leaders, as well as community sensitization on peaceful coexistence. Facilities or incentives being offered as part of the relocation exercise could be extended or designed to include or also be of benefit to the local population. This could promote social cohesion and by extension, sustainable integration of persons being relocated as a climate adaptation strategy.

On the regular collection of data, relevant national agencies like the Statistics Bureau, the DMA and Department of Environment could develop and include indicators on climate change, disasters and human mobility dimensions as part of their data collection processes. The collection of disaggregated data on human migration, return and motivations, as well as skills intelligence, socioeconomic and ecological implications could be integrated as part of censuses, labour surveys, DHS and data being collected by the immigration department. These data could be pooled in a common database for informed planning and response. In terms of data at the regional level, the DMA and other Southern African countries could collaborate within the framework of SADC to design common or homogenous indicators and predetermined forms for data collection, labour migration and skills transfer. This could allow for orderly labour migration and skills transfer for sustainable development and poverty reduction across countries.

7.2. Areas for IOM programming

- Support the Government in mainstreaming MECC and operationalizing measures at addressing mobility dimensions of climate change and gender across sectors and agencies. By this, IOM could support the Government by way of first undertaking capacity assessment, prioritization of areas and capacity-building. In this regard, the IOM Integrated Human Mobility Assessment Tool developed in collaboration with CADRI could be deployed as part of the proposed assessment. This would allow for adequate knowledge on capacities of national agencies, gaps, needs and priority areas for intervention in adequately mainstreaming and addressing issues of MECC and (re)integration in Lesotho.
- Extend social support and sensitization campaigns, and facilitate skills training and capacity development for enhanced community disaster response in local communities. In the context of proposed planned

relocation as DRR and climate adaptation strategy, IOM could provide support in the form of psychosocial support and skills training for both local communities, and vulnerable populations being relocated, as well as returning migrants.

Efforts at promoting community cohesion and inclusion could be modelled in the form of public community engagements, training and capacity development for local government authorities or administrators on strategies to promote sustainable (re) integration. While these initiatives could be modelled in similarity to the IOM–Central Emergency Response Fund support project implemented for the Migrant Workers Association of Lesotho, the training could be designed in the frame of CADRI training for local authorities, community members, vulnerable populations being relocated, as well as returning migrants – on disaster management, addressing the mobility dimensions of disaster with a focus on gender.

Ultimately, the training should translate into the formation of community response and protection committees across the local communities. While direct support could be extended to migrants, the skills training component could, with the mediation of IOM, be linked with PPF being rolled out by LNDC. The provisions of PPF could be revised to include support to skills trainees to start-up income-making ventures under the direct guidance and supervision of the proposed special desk (at LNDC) and district-based support centres. This would help promote sustainable (re)integration, community inclusion and ultimately climate resilience across the districts.

Annexes

Annex 1. Research participants

(a) List of stakeholders/research participants

Position	Gender	Institution	Type of institution
1. Principal Environment Officer	Female	Department of Environment	Government
2. Climate Change Officer	Male	LMS	Government
3. District Disaster Manager	Male	DMA	Government
4. Projects Coordinator	Male	Ministry of Local Government and Chieftainship	Government
5. Administration Manager	Female	Ministry of Local Government and Chieftainship (District Administrator, Maseru)	Government
6. Director of Consular Affairs	Male	Ministry of Foreign Affairs and International Relations	Government
7. Unidentified position	Female	Ministry of Home Affairs	Government
8. Principal Labour Officer	Female	Ministry of Labour and Employment	Government
9. Economist	Male	Ministry of Development Planning	Government
10. Chief Research Officer	Male	Ministry of Agriculture –Department of Agricultural Research	Government
11. Senior Research Officer	Male	Department of Science and Technology	Government
12. Senior Statistician	Male	Bureau of Statistics	Government
13. Natural Resources Management Expert	Female	Integrated Catchment Management Programme – GIZ	Development partner
14. Senior Biodiversity Officer	Female	Lesotho Highlands Development Authority	Parastatal
15. Chief Executive Officer	Female	Lesotho Electricity Generation Company	Parastatal
16. Senior Programme Officer/Head of Office	Female	IOM	United Nations agency
17. National Coordinator	Female	United Nations Development Programme – Global Environment Facility Small Grants Programme	United Nations agency

Position	Gender	Institution	Type of institution
18. Sustainable Development Specialist	Male	United Nations Development Programme	United Nations agency
19. National Programme Officer	Male	Food and Agriculture Organization of the United Nations	United Nations agency
20. Programme Manager	Male	Lesotho National Farmers Union	NGO
21. Executive Director	Male	Migrant Workers Association of Lesotho	NGO
22. National Coordinator	Female	Geography and Environment Movement	NGO
23. Associate Professor/Senior Lecturer	Male	National University of Lesotho	Academic
24. Lecturer	Female	National University of Lesotho	Academic
25. Independent consultant	Male	Independent consultant	Independent consultant

(b) List of vulnerable research participants interviewed

Gender	District	Village and community council
1. Male	Mafeteng	Lecoop, Urban Council
2. Male	Mafeteng	Tajane
3. Male	Mafeteng	Ha Leburu
4. Male	Mafeteng	Ts'akholo, Metsi-Maholo Community Council
5. Female	Mafeteng	Thabana-Morena, Makoabating Community Council
6. Female	Mafeteng	Motse-Mocha, Qibing Community Council
7. Female	Mafeteng	Motse-Mocha, Qibing Community Council
8. Female	Mafeteng	Thabana-Morena, Makoabating Community Council
9. Female	Mafeteng	Ha Ramokhele
10. Female	Mafeteng	Ha Maphoka
11. Female	Mafeteng	Tajane
12. Female	Mafeteng	Mafeteng
13. Female	Mafeteng	Makhanyeng
14. Female	Mafeteng	Ha Ramotoho
15. Female	Mafeteng	Ha Lebenkele
16. Female	Mohale's Hoek	Ha Maphohloane
17. Female	Mohale's Hoek	Ha Maphohloane
18. Male	Quthing	Aiskop
19. Male	Quthing	Tele
20. Female	Qacha's Nek	Ha Belebese, Tsoelikane Community Council
21. Female	Qacha's Nek	Ha Semenyane, Tsoelikane Community Council

(c) List of participants: Key stakeholder focus group discussion

Position	Gender	Institution	Type of institution
1. Principal Environment Officer	Female	Department of Environment	Government
2. Climate Change Officer	Male	LMS	Government
3. Project Assistant	Male	LMS	Government
4. Projects Coordinator	Male	Ministry of Local Government and Chieftainship	Government
5. Refugee and Migration Liaison Officer	Female	Ministry of Home Affairs	Government
6. Senior Statistician	Male	Bureau of Statistics	Government
7. Senior Biodiversity Officer	Female	Lesotho Highlands Development Authority	Parastatal
8. National Programme Officer	Male	Food and Agriculture Organization of the United Nations	United Nations agency
9. National Coordinator	Female	Geography and Environment Movement	NGO

(d) List of vulnerable research participants: Focus group discussions 1 and 2

Gender	District	Village and community council
Focus group discussion 1 – Mafeteng		
1. Male	Mafeteng	Lecoop, Urban Council
2. Male	Mafeteng	Tajane
3. Female	Mafeteng	Thabana-Morena, Makoabating Community Council
4. Female	Mafeteng	Motse-Mocha, Qibing Community Council
5. Female	Mafeteng	Motse-Mocha, Qibing Community Council
6. Female	Mafeteng	Thabana-Morena, Makoabating Community Council
7. Female	Mafeteng	Ha Ramokhele
8. Female	Mafeteng	Ha Maphoka
9. Female	Mafeteng	Tajane
10. Female	Mafeteng	Mafeteng
11. Female	Mafeteng	Makhanyeng
Focus group discussion 2 (Four southern districts of Mafeteng, Mohale's Hoek, Quthing and Qacha's Nek)		
1. Female	Mafeteng	Ha Lebenkele
2. Female	Mohale's Hoek	Ha Maphohloane
3. Female	Mohale's Hoek	Ha Maphohloane
4. Male	Quthing	Aiskop
5. Male	Quthing	Tele
6. Female	Qacha's Nek	Ha Belebese, Tsoelikane Community Council
7. Female	Qacha's Nek	Ha Semenyane, Tsoelikane Community Council
Total participants: 18		

Annex 2. Questionnaires/Consent form

(a) Questionnaire for national stakeholders

Part I: Personal and contact information

1. Respondent information:
 - 1.1. Gender/sex of respondent: _____
 - 1.2. Job title of respondent: _____
 - 1.3. Affiliation of respondent: _____
 - 1.4. Location: _____
 - 1.5. Email/Tel. no. _____
 - 1.6. To what extent do you know about climate and environmental change and their impacts?

 Quite a lot A little bit Not at all

 (If not at all, please skip to Part III.)
 - 1.7. To what extent do you know about migration and (re)integration processes?

 Quite a lot A little bit Not at all

 (If not at all, please skip to Part IV.)

Part II: Climate change and environmental degradation impact on migration and reintegration in Lesotho

2. Based on your perceptions of climate and environmental change, how would you assess the severity of the impact of climate change/related hazards and other environmental degradation processes in the country? (Please circle/tick number in box below as appropriate.)

No/hardly any impact	Little impact	Medium impact	Severe/significant impact	Very severe/devastating impact
1	2	3	4	5

- 2.1. Please provide reason(s) or explanation for the choice you have made in Q.2 above.

3. What are the current/recurring climate change (risks/hazards/events) and other environmental degradation processes in the country? (Please check/tick box as appropriate.)

Current/recurring climate change (risks/hazards/events) and other environmental degradation processes in the country	Frequency in the past two decades (2000–2020)		
	1. Does not/hardly occurs ²⁴	2. Occasionally ²⁵	3. Occurs frequently and severe ²⁶
Drought	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heatwave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flash flood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landslide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Snowfall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Irregular rainfall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Land degradation (e.g. rangeland degradation, loss of soils, reduction in soil fertility)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biodiversity loss (e.g. deforestation, loss of wild species of animals and plants, loss of habitats and ecosystems)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others (please mention them):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General comments, if any:			

²⁴ “Does not/hardly occurs” – not occurring at a regular interval, not often, seldom, rarely.

²⁵ “Occasionally” – occurring from time to time, now and then, once in a while, irregularly at infrequent intervals.

²⁶ “Occurs frequently” – frequent intervals.

4. Are you aware of any scientific projections and/or any observed patterns on the nature and impacts of climate change and other environmental degradation processes in Lesotho?

1) Yes 2) No (If no, please skip to Q5.) 3) Do not know

- 4.1. If yes, please describe (and list and share relevant documents if available).

- 4.2. Do you know if these scientific projections acknowledge mobility patterns (i.e. migration, displacement, planned relocation) as being influenced by climate change and other environmental degradation processes?

1) Yes 2) No (If no, please skip to Q4.4.) 3) Do not know

- 4.3. If yes, how do these scientific projections link climate change and/or other observed environmental degradation processes to human mobility? Please explain.

- 4.4. In the case of any observed patterns, why and how would you link them to mobility patterns? Please explain.

5. Which communities or villages do you think are most vulnerable to the impacts of climate change and/or other environmental degradation processes? Please mention them.

6. Why do you think the communities or villages mentioned in Q.6 are vulnerable? Please explain.

6.1. Which groups of people or sections of the population do you think are most vulnerable to the impacts of climate change and/or other environmental degradation processes and why? Please give reasons.

Part III: Migration and reintegration processes affected and/or caused by the impacts of climate change and/or other environmental degradation processes

7. List examples of cases (or instances, if any) of human mobility (migration, displacement, relocation, (re)integration, other mobility processes) affected or associated with the impacts of climate change and/or other environmental degradation processes at the national level, based on the following information:

a. Migration

Climate event and/or environmental degradation process that led to the migration	Communities involved: Place of origin – final destination	Which measures were put in place to support affected persons or migrants (irrespective of length of stay)?	How sustainable were the measures? Please provide some explanations and/or reasons.
General comments, if any:			

7.1. How did these measures (mentioned above) address vulnerable groups? Please explain.

Vulnerable group	Measures	Comments/Remarks/Explanation (if any)
Women		
Children		
Elderly persons and persons with disabilities		
Vulnerable economic groups (e.g. fisherfolks, small holders, informal sector)		

b. Displacement

Climate event and/or environmental degradation process that led to the migration	Communities involved: Place of origin – final destination	Measures were put in place to support affected persons or migrants (irrespective of length of stay)?	How sustainable were the measures? Please provide some explanation and/or reasons.

7.2. How did these measures address vulnerable groups? Please explain.

Vulnerable group	Measures	Comments/Remarks/ Explanation (if any)
Women		
Children		
Elderly persons and persons with disabilities		
Vulnerable economic groups (e.g. fisherfolks, small holders, informal sector)		

c. Planned relocation

Climate event and/or environmental degradation process) that led to the migration	Communities relocated (Place of origin – final destination)	Who initiated the relocation and planning process?

7.3. What measures were put in place to support affected or displaced persons who were being relocated to sustainably integrate into the local community (if any)? Please mention them.

- 7.4. What measures were put in place to support or address the likely impact on the local community to which persons had been relocated (if any)? Please mention them.

- 7.5. In your opinion, how sustainable were the response measures put in place to support both affected persons being relocated and the local or host community? Please explain.

- 7.6. How did these measures address vulnerable groups? Please elaborate.

Vulnerable group	Measures	Comments/Remarks/ Explanation (if any)
Women		
Children		
Elderly persons and persons with disabilities		
Vulnerable economic groups (e.g. fisherfolks, small holders, informal sector)		

8. In what way does/can climate and environmental change affect (re)integration of migrants [returnees (from abroad, labour migrants and internal migrants)]? Please explain.

Part IV: Immediate and long-term needs of returnees, labour migrants and internal migrants to become resilient to current and predicted climate change impacts and environmental degradation processes

9. Rank the most significant impacts of climate change and/or other environmental degradation processes (episodes) the country has experienced in the past five years. (Please check/tick boxes as appropriate.)

Natural hazards/ degradation process	Impact was not (really) severe	Moderate impact	Severe impact	(Since) when did the hazard occur (if possible, please provide first time, month and year of occurrence)?	What was the nature/type of impact? (Please explain/ elaborate, e.g. loss of livestock.)
Heavy rain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Drought	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Heatwave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Flash flood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Landslide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Fires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Water scarcity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Snowfall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Strong winds/ storms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Land degradation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Biodiversity loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Others: (Please mention.)					
Comments on impacts of hazards/degradation, if any:					

9.1. On such occasions (of the events selected above), are you aware or did national authorities take any measures to assist affected individuals and/or communities? (Please check/tick box as appropriate.)

1) Yes 2) No 3) Do not know

9.2. If yes, please explain.

9.3. If no, why was there no form of assistance? Please explain.

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9.4. How did these measures address the needs of vulnerable groups? Please mention and elaborate where necessary.

Vulnerable group	Measures	Comments/Remarks/Explanation (if any)
Women		
Children		
Elderly persons and persons with disabilities		
Female-headed households (due to migration of male spouse or death)		
Vulnerable economic groups (e.g. pastoralists/herders, small holder farmers, informal sector-workers in garment industry)		

9.5. In your opinion, what are the immediate and long-term needs of returnees, internal migrants and diaspora to help them sustainably reintegrate into local communities or places of origin and become resilient to current and predicted impacts of climate change and/or other environmental degradation processes? Please explain.

Category	Needs (Please explain)	
	Immediate	Long-term
Returnees		
Internal migrants		
Diaspora (those who may have intentions to return)		

Part V: Best practices in terms of schemes, programmes and policies that support the adaptation of returning workers to climate change and environmental degradation, as well as support the (re)integration of (labour) migrants/returnees into local or national labour markets and/or host communities in Lesotho

10. Does the country have any specific policy and legal frameworks dealing with migration and related issues?

1) Yes 2) No (If no, please skip to Q11.) 3) Do not know

10.1. If yes to Q10 above, please name them.

10.2. Do these national policy/legal frameworks recognize and address mobility patterns associated with the impacts of climate change and/or other environmental degradation processes?

1) Yes 2) No 3) Do not know

10.3. If yes to Q10.2 above, in what context and how?

10.4. If no to Q10.2 above, please explain in your opinion the reasons why these frameworks do not recognize or address the human mobility dimensions of climate and environmental change.

10.5. Do these national policy/legal frameworks support the adaptation of (returning) migrants to the impacts of climate change and/or other environmental degradation processes?

1) Yes 2) No 3) Do not know

10.6. If yes, how? Please explain.

10.7. If no to Q.10.5, please explain in your opinion the reasons why these frameworks do not support the adaptation of (returning) migrants.

10.8. Do these national policy/legal frameworks support the (re)integration of return(ing) migrants, labour migrants or displaced persons into local or national labour markets in Lesotho or local (host) communities?

1) Yes 2) No 3) Do not know

10.9. If yes, how? Please explain.

10.10. If no to Q.10.8 above, please explain in your opinion why these frameworks do not support the (re)integration of return(ing) migrants, labour migrants, diaspora or displaced persons into local or national labour markets in Lesotho or local (host) communities.

11. Do the existing national policy/legal frameworks make provision or provide opportunities for the development of the green economy for sustainable and decent jobs?

1) Yes 2) No (If no, please skip to Q11.2.) 3) Do not know

11.1. If yes, kindly explain how these frameworks support or make provision for the development of green economy for sustainable and decent jobs.

11.2. Are you aware of any green jobs programmes in Lesotho?

1) Yes 2) No (If no, please skip to Q11.4.) 3) Do not know

11.3. If yes, please mention or list them.

11.4. Do these national policy/legal frameworks support reskilling and/or upskilling of (returning) migrants and populations at risk for alternative livelihoods or green jobs?

1) Yes 2) No 3) Do not know

11.5. If yes, please explain in your opinion how these frameworks support reskilling and/or upskilling of (returning) migrants and populations at risk for alternative livelihoods or green jobs.

11.6. If no, please explain in your opinion why these frameworks do not support reskilling and/or upskilling of returnees.

12. Are there any existing best practices and/or programmes in the country that support the adaptation of returning workers (diaspora) to the impacts of climate change and/or other environmental degradation processes?

1) Yes 2) No (If no, please skip to Q11.2.) 3) Do not know

12.1. If yes, please mention or list them.

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12.2. If no, what measures or strategies in your opinion could be instituted to help returning diaspora to sustainably integrate? Please explain.

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13. Are there any existing best practices and/or programmes that support the integration of incoming labour migrants/returnees (from abroad and internal migrants) and displaced persons into local or national labour markets and/or host communities?

1) Yes 2) No (If no, please skip to Q14.) 3) Do not know

13.1. If yes to Q.13, please mention and elaborate on the practices and/or programmes below:

Best practice/programme	Category (returnees) [Kindly elaborate]	
	Internal migrants	Returnees from abroad/diaspora

14. What (sustainable) measures or recommendations will you propose to address the impact of climate change on:

Vulnerable group	(Sustainable) Measures (Kindly elaborate)
Vulnerable communities/displaced persons	
Women	
Elderly persons and persons with disabilities	
Youth/Children	
Vulnerable economic groups (e.g. pastoralists/herders, small holder farmers, informal sector workers in garment industry)	

15. Do you have any questions, opinions and suggestions about the study (including on climate change and environmental degradation)? If yes, please provide them.

Thank you.

(b) Questionnaire for vulnerable populations

Location

* To be filled before the start of the interview

1. Location information:

1.1. Village/Town: _____

Part I: Respondent information

2. Respondent information:

Sex/ Gender	Age (in years)	Marital status	Relationship to household head	Highest level of education
1 = Male 2 = Female		1 = Married 2 = Single (never married) 3 = Divorced 4 = Widowed	1 = Head (himself/herself) 2 = Spouse 3 = Son/Daughter 4 = Grandchild 5 = Other relative	1 = Tertiary 2 = High school 3 = Secondary 4 = Primary 5 = Vocational/Technical 6 = No education/ uneducated 7 = Others

2.1. Occupation _____

3. Do you come from this community?

1) Yes 2) No 3) Do not know

3.1. If no, where did you come from? _____

4. How long have you lived in this location?

1) Since birth 2) Months/Years 3) Do not know

5. What are your main sources of income?

Part II: Climate change and/or other environmental degradation processes impact on livelihoods

6. Have you experienced any climate/environmental change–related extreme event(s) or hazards in the past 5–10 years?

1) Yes 2) No (If no, please skip to Q9.)

6.1. If your answer to Q.6 is yes, please answer the following in terms of occurrence, significance, severity and month and year for each of the mentioned natural hazard in the past five years. [Please check or tick boxes as appropriate.]

(Natural) hazards/ Climatic events/ Environmental process/ impacts	Did not occur	Occurred, but the impact was not severe	Occurred – moderate impact	Occurred – severe impact	(Since) when did the hazard occur (first) (month and year)?	What was the nature of impact (type)? [Please elaborate the nature of impact.]
Heavy rainfall						
Drought						
Heatwave						
Flash flood						
Landslide						
Fires						
Snowfall						
Storms/strong winds						
Land degradation						
Biodiversity						
Water scarcity						
Others:						
General comments:						

6.2. What is the impact of climate/environmental change (ranked in Q6.1. above) on you and your household and the coping/adaptation strategies employed?

Climate/ Environmental change event/hazard	Household/Member [Kindly elaborate]		
	Impact	Coping/Adaptation strategy	Assistance received
General comments:			

Part III: Migration as an adaptation/coping strategy to the impacts of climate change and/or other environmental degradation processes

7. Have you ever migrated or decided to relocate for any reason?
 1) Yes 2) No

7.1. If yes, what circumstances informed the decision? Please explain.

7.2. If no, what informed the decision not to migrate or move? (Skip to Q7.3 if the answer is yes.)

7.3. Where did you migrate or relocate to? Please mention the place of destination.

7.4. Of all the reasons you mentioned, could you please rank the top three most important factors?

- a) First: _____
- b) Second: _____
- c) Third: _____
- d) Do not know

8. Do you know of anyone (or family) who migrated or who left due to climate/ environmental change impact or related hazards?

- 1) Yes 2) No (If no, please skip to Q8.2.) 3) Do not know

8.1. Where did they go? _____

8.2. What do you think is/are the impact(s) of migration on households and livelihoods? Please elaborate.

Impact of migration	
Household	Livelihood

9. How, in your opinion, will migrant returnees (internal and from abroad) affect home communities, labour markets and climate change adaptation in Lesotho?

Impact of returnees		
Home/Local communities	Labour markets	Climate change adaptation

10. How in your opinion will climate and environmental change affect returnees/ migrants (internal migrants, from abroad and labour migrants). Please elaborate.

11. Has there been or are you aware of any planned relocation programme(s) initiated in Lesotho?

- 1) Yes 2) No (If no, please skip to Q11.2.) 3) Do not know

11.1. If yes, kindly mention and explain how this/these programmes contributed to climate adaptation and resilience in Lesotho.

11.2. Do you think migration or planned relocation (resettlement) could contribute to climate change adaptation and resilience in Lesotho?

1) Yes 2) No (If no, please skip to Q14.2.)

3) Do not know

11.3. If yes, please explain in your opinion how migration or planned relocation (resettlement) could contribute to climate change adaptation and resilience in Lesotho?

11.4. If no, please explain in your opinion and/or reasons why migration or planned relocation(resettlement) would not contribute to climate change adaptation and resilience in Lesotho.

11.5. In what ways will or does planned relocation programmes affect local communities receiving persons being relocated? Briefly explain.

Part IV: Immediate and long-term needs of returnees (from abroad (diaspora), labour migrants and internal migrants) to adapt or become resilient to ongoing environmental degradation and predicted climate change impacts

12. What measures do you think could be instituted to enhance adaptation to ongoing environmental change impact and promote resilience to climate change risks/hazards in the short to long term in Lesotho? Please elaborate.

Climate/Environmental change event/hazard	Suggested measures	
	Immediate/Short term	Long term

13. What measures do you think could be developed to facilitate the (re)integration of returnees (from abroad, labour migrants or returning internal migrants) back into their communities or host communities?

Measures		
Category (returnees) (Kindly elaborate)		
Internal migrants	Returnees from abroad/diaspora	Labour migrants (immigrants)

14. What specific recommendations will you make to help address ongoing climate change and environmental change impact on vulnerable groups?

Vulnerable group	(Sustainable) Measures (Kindly elaborate)
Women	
Single/female-headed households	
Elderly persons and persons with disabilities	
Young people/children	
Vulnerable economic groups (e.g. pastoralists, small holders, informal sector)	
Vulnerable communities/displaced persons	

15. Do you have any questions, comments or suggestions? Please share or provide below.

Thank you.

(c) Guide for focus group discussions

Introduction

Opening:

- Introduce the topic, purpose and objective of the study.
- Express appreciation for participation and state clearly their freedom to opt out if they change their mind, as well as assurance of anonymity and confidentiality of information to be collected.
- Ask for permission to record discussion for only analytical purposes.
 - * Maximum number – 8 (Ensure representation for different categories: age, sex and occupation)

Objective: This study seeks to provide the evidence to facilitate the design and development of policies and conditions to mainstream sustainable (re)integration and planned relocation in both Lesotho and Mauritius in the face of return, climate and environmental change impact in Lesotho and Mauritius.

Questions

Theme I: Climate and environmental change

1. What are your perceptions or opinions about the nature of climate and weather patterns in the country over the last the last 10–30 years? (Have there been any observed changes?)
2. What in your opinion are the impacts of ongoing climate change at the national level and on communities and households?
3. What do you think are the major processes of environmental degradation and causes?

4. In your observation, how do these environmental degradation processes affect communities?
5. From your observations, which communities are most vulnerable or affected by the impacts of climate change and/or other environmental degradation processes?
6. For these communities mentioned, which population groups are particularly vulnerable or most affected by the impacts of climate change and environmental degradation (and why)?
7. What do you think: In what ways do affected or vulnerable people respond to climate and environmental change risks and hazard impacts?

Theme II: Migration, return and reintegration – Climate/Environmental change and human mobility

8. What in your view is the nature or impact of climate and environmental change on:
 - Migration (How is migration related to climate and environmental change)
 - Displacement (Explain the relationship and under what circumstances persons may be displaced or considered displaced)
 - Planned relocation (Have there been instances of relocation in the community or any part of the country? Under what circumstances or events were persons relocated instances), by who and to where) Which communities were involved?)
9. What measures were implemented to support affected persons under the different dimensions of movement outlined? (Were there any provisions made to address vulnerable categories (e.g. women, children, elderly and persons with disabilities?)
10. For persons who may be returning (from abroad or internal migrants) or wish to come back to the community, what do you think are their needs which should be addressed to help with their reintegration into local communities and to effectively adapt to climate and change risks and hazards?
 - (Same for persons who have or are being relocated; or labour migrants/immigrants who may be coming in to live and work in the country)
11. What programmes or initiatives could be instituted to promote decent and sustainable jobs in the green and blue economy?
12. Are you aware or do you know of any existing best practices and/or programmes that support the integration of incoming labour migrants/returnees (from

abroad and internal migrants) and displaced persons into local or national labour markets and/or host communities that could be adopted in the country and communities?

13. What measures or recommendations do you propose or think could be instituted by government, local authorities and civil societies to facilitate the sustainable (re)integration of returnees (both internal migrants and from abroad), labour migrants (both internal migrants and immigrants) and persons being relocated under planned relocations schemes?
14. Are there any further comments, suggestions or opinions about the study and topic you may want to share? (Please do so.)

Thank you.

(d) Informed consent to participate in research study

General information

The project aims to conduct a study to support the governments of Mauritius and Lesotho in mainstreaming environmental dimensions into integration, reintegration and relocation programmes. The focus on these two countries is motivated by their different geographical characteristics (an island/coastal), on the one hand, and a landlocked (mountainous) country on the other) that may influence the impacts of environmental degradation and climate change on migration and migrants in these countries and, ultimately, the types of policies and support responses needed. Both Lesotho and Mauritius are important countries of origin and destination of migrants that experience challenges resulting from climate and environmental change.

To this end, the study will undertake data collection through interviews with relevant stakeholders across ministries, United Nations agencies, NGOs, academia, private sectors and other CSOs active in the field of environmental and climate change and displacement and reintegration. Alongside interviews with local populations, migrants and diaspora, complementary desk review will be conducted to analyse existing literature on the relationships between climate change, migration and (re)integration in Lesotho and Mauritius, as well as to identify relevant “green” and “blue” economy projects in the two countries.

By participating in this project, you will be filling in or responding to the attached questionnaire. You may subsequently be invited to attend a feedback workshop to share the findings with you. As part of the research, you may be asked questions about the role of your agency and its relation to (or your views on) policy frameworks

relating to migration, climate and environmental change and (re)integration. Your insights would be translated into a comprehensive report. The preliminary findings would be presented to you and other participants for validation prior to their integration into the consolidated national report.

Risks and benefits: There are no risks or direct benefits to participating in this study.

Anonymity: IOM will not include names or other identifiable information in the publications that result from this research project.

Confidentiality: Every effort will be made to keep any information collected about experts confidential. To keep information safe, study data will be kept or stored according to IOM's data privacy standards. Following the conclusion of the research project, audio recordings, digital and paper notes from the interview process will be destroyed.

Rights as an expert participant: Participation in this study is strictly voluntary at all times. As research participant, you can choose to opt out during the research or interview, or ask that some part of the interview not to be reported at any point. If you decide not to participate or withdraw during the research, there will be no effect on your relationship with the researchers or any other negative consequences. At any point, if you wish or decide that you no longer want to take part in this study, please feel free to immediately inform the researchers of their decision. Thanks.

Contacts in the case of doubts about the research project:

Stephen Adaawen

Lead researcher

Phone number: _____

E-mail: _____

Masoai Dennis

IOM Project Lead

Phone number: _____

E-mail: _____

Consent of participant

I, _____, hereby authorize the International Organization for Migration (hereinafter, "IOM") and any authorized person or entity acting on behalf of IOM to collect, use, disclose and dispose of the data from my interview for the following purposes:

Collect and analyse data to support Government of Lesotho to mainstream environmental dimensions in integration, reintegration and relocation programmes. This will contribute to the sustainability of integration, reintegration and planned relocation programmes as adaptation strategies to climate change in Lesotho.

I agree that the data from my interview may be disclosed to the following third parties for the above purposes:

The report will be made public following validation from participants. The study will be available to IOM, government and relevant stakeholders.

I volunteer to participate in this research project: “Mainstreaming Environmental Dimensions into (Re)integration Support to Reduce the Impacts of Climate Change on Migration in Lesotho and Mauritius”, under the auspices of IOM. I understand that the project is designed to gather information about migration governance, climate and environmental change policies and ongoing initiatives at facilitating sustainable reintegration in the wake of climate and environmental change impact, the COVID-19 pandemic and return migration and displacement in Lesotho.

I have been informed about the specific and additional purposes for which the data from my participation will be collected, used and disclosed, as described above.

I hereby confirm that:

1. I understand that the data from my participation may be used and disclosed for secondary purposes that are necessary to achieve the above described specified purposes.
2. I understand that I have freely and voluntarily agreed to participate in this assessment, and that I may withdraw and/or discontinue my participation at any time without penalty.
3. I understand that if I feel uncomfortable at any time, I have the right to decline to answer any question and/or to end my participation.
4. I understand that my participation in this assessment will be kept confidential, and that the researchers will not identify me by name in any reports using information obtained from this interview/questionnaire.
5. I understand that my information and involvement will remain confidential if I decline to participate or withdraw from the study.
6. I understand that I may access and rectify any data from my interview on request by contacting IOM.
7. Where applicable, I may be audio recorded as part of this study if I give permission.

Please indicate (if only applicable) whether you agree to be audio recorded as a part of this study:

- Yes (If you change your mind about this at any point, please let the researcher know.)
- No

8. I hereby release, discharge and agree to hold or absolve IOM, its officers, employees and agents from any liability or damage caused, directly or indirectly, to me in connection with this authorization by virtue of the use or disclosure of the data from my interview for the specified purposes as described above.
9. I have read and understood the explanation provided to me, and I have been given a copy of this consent form.
10. I voluntarily make this declaration and freely consent to the collection and processing of the data from my interviews by IOM.

Research participant (signature): _____

On (date): _____

Signed at (location): _____

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