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Tesfai, Redae; Parrini, Francesca ; Moehlman, Patricia D.; Young, Nicholas E.; Evangelista, Paul H.

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Climate change aggravating migration and health issues in the African context: The views and direct experiences of a community of interest in the field

Ursula Trummer [a,*], Thowaiba Ali [b], Davide Mosca [a,c], Blessing Mukuruva [d], Hadijah Mwenyango [e], Sonja Novak-Zezula [a]

[a] Center for Health and Migration, Austria
[b] University of Tennessee at Chattanooga, Economics and Finance Department, USA & Interstate Network to Develop Equity and Eliminate Disparities (INDEED) Grant, USA
[c] Lancet Migration: Global Collaboration, United Kingdom
[d] African Centre for Migration and Society, School of Social Sciences, University of the Witwatersrand, South Africa
[e] Edinburgh Napier University, School of Health and Social Care, United Kingdom

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ABSTRACT

Climate change is an increasingly important theme in Africa, where a large majority of its people depend on livestock and agricultural activities for livelihood. Concurrently, the topic of health of migrants and people on the move is rapidly raising both in the health debate and migration governance agenda in the Region. The link with climate change from the perspective of health and migration experts needs to be systematically addressed.
Objectives: The article aims to contribute to the discourse on the interrelation of climate change, migration, and health by providing contributions of experts in the field of health and migration directly working with migrant and refugee communities in Africa.
Methods: A webinar was conducted to collect and discuss first-hand experience with 25 participants from a postgraduate online course on health and migration funded by the Austrian Government and implemented in a co-operation of the Center for Health and Migration, Austria, with Makerere University, Uganda, the International Organization for Migration – UN Migration, and Lancet-Migration. As a result from the discussions, two cases from Sudan and Zimbabwe were selected to be further analysed with desk research to illustrate and underpin the points made.
Results: All webinar participants reported to encounter climate change effects on health and migration in their professional practice. In their experience, climate change aggravates issues of health and migration by fueling forced migration and displacement, increasing health care needs, and deteriorating access to health care. Specific health challenges were identified for mental health problems caused by effects of climate change-induced migration, which remain widely undiagnosed and untreated, and the special affectedness of women and girls, with their mental, sexual and reproductive health severely deteriorated in insecure environments. The case studies from Sudan and Zimbabwe underline these observations.
Conclusions: The interplay of effects of climate change, (internal) migration, and health is reported by a community of experts in the field of health and migration who are residing in Africa and working with migrant communities. Webinars prove to be an easy to implement tool to collect first hand evidence from practice experts, to foster exchange of experiences, and to get people engaged in further collaboration and discussion.

1. Introduction: Climate change in Africa

Though Africa is a continent already experiencing the negative effects of climate change, climate change debates more often use the future tense to describe its possible harmful consequences. Negative effects are particularly experienced in the context of health and

* Corresponding author at: Center for Health and Migration, Wasagasse 12/3/5; 1090 Vienna, Austria
E-mail address: ursula.trummer@c-hm.com (U. Trummer).

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migration, yet robust evidence and research in this particular field is lacking. The need to build a community of interest to address this gap is much felt.

Climate change is an increasingly important theme in Africa, where a large majority of its people depend on livestock and agricultural activities for livelihood. Concurrently, the health of migrants and people on the move is rapidly raising in both the health debate (WHO African Region, 2018) and the migration governance agenda in the region (African Union, 2018). Traditionally, African climates are characterised by the annual cycle of wet and dry seasons. This trend has started to shift to drier and warmer changes than in its preindustrial era, with desert zones in the Sahara expanding, the Central African forest zone shrinking and an increase in frequency and intensity of drought in the West African Sahel due to anthropogenic climate change (Tischler and Haltermann, 2020).

Although Africa's Greenhouse gas (GHG) emissions are minor when compared with those of developed nations (United Nations Development Programme, 2021), many countries in the continent are particularly vulnerable to climate change impacts. Changing weather patterns, changing water levels, extreme weather events such as droughts and floods, etc. impact crop production, trade, mobility, and livelihood, and have associated social, cultural, economic and political impacts resulting in communities' vulnerability. Many regions in Africa are particularly vulnerable to detrimental environmental factors with associated social determinants of health due to socioeconomic stressors such as poverty, unstable political circumstances, or infrastructural constraints (Tischler and Haltermann, 2020). Climate change is also a threat to African communities because of their high dependence on the natural environment and yet with limited protection of modern technological infrastructure in comparison with Western societies (Tischler and Haltermann, 2020).

The effects of climate change on migration and health should be considered in the broader development debates in Africa. Changes in climate patterns affect food supply as well as the spread of disease, migration, the timing of military campaigns, political cycles, and religious practices (Tischler and Haltermann, 2020). In the past African societies have tried to cope using indigenous knowledge. It is anticipated however that African populations will no longer be able to cope with escalating climatic conditions as they have in the past due to the growth of globalised markets and conflicts, mass urbanisation, population growth, and land use change. Moreover, many regions in Africa also lack resources such as weather stations and expertise for addressing climate related issues.

The African poor are even at higher risk of health and death due to climate change. This is as Piguet and Laczko (2014) confirm that difficulty in accumulating enough money in depleted areas inhibits people to migrate out of areas with unfavourable climatic conditions (Piguet and Laczko, 2014).

This is not to suggest that environmental stresses are the only events that influence migration and health. Individual characteristics such as gender, class and ethnicity as of significant. In most cases, these also determine who does and does not migrate and ends up in worse-off health situations (Tischler and Haltermann, 2020). Tischler and Haltermann (2020) assert that climate change increases inequalities, including those based on gender. The unequal provision of economic, cultural, and social capital between genders also determines vulnerability and resilience and since adaptation is a collective process, unequal power relations and cultural conditions lower women's ability to adapt (Tischler and Haltermann, 2020).

In countries with ongoing lasting conflicts such as Somalia and South Sudan, combatting climate change is vital for realising peace, stability and future prosperity. Evidence shows that climate crises and land resource degradation had largely fuelled conflict and extremism in Somalia (United Nations Development Programme, 2021). There are several principal policy developments on climate change and migration at the regional level that are crucial to this debate. Article 24 of the African Charter on Human and Peoples' Rights which nearly all African countries have ratified establishes the basis for the promotion and protection of a universal satisfactory environment. This provision could be used to argue for the duty of African states to make arrangements for people whose right to health is disrupted by climate change. In October 2009, African states adopted the Kampala Convention also known as the African Union (AU) Convention for the Protection and Assistance of Internally Displaced Persons in Africa as another mechanism to protect internally displaced persons (IDPs). Building upon the 1998 United Nations Guiding Principles of Internal Displacement, humanitarian and refugee law relevant for internal displacement it sets out specific obligations of state parties and international organisations concerning protection and assistance to the displaced populations. This convention is significant in analysing the relationship between climate change, forced displacement and health. Article 5 (4) states that "States Parties shall take measures to protect and assist persons who have been internally displaced due to natural or human made disasters, including climate change."

Although this has been in force since December 2012 with the crucial 15 ratifications, its implementation and impact at domestic levels are difficult to assess (Popp, 2014).

The Organization of African Unity (OAU) Convention Governing the Specific Aspects of Refugee Problems in Africa (1969) specifically addresses displacement issues in refugee situations. This covers broader aspects that include events seriously disturbing public order which could be stretched to comprise environmental factors/climate change (Popp, 2014).

The Heads of State and Government of the Organization of African Unity (OAU) meeting at the Thirty-sixth Ordinary Session of their Assembly in Lome, Togo from 10 to 12 July 2000 pledged to tackle the root causes of displacement. The Declaration required the establishment of new legal measures to protect vulnerable migrants (such as women, youth, children, and disabled people) displaced by climate change. Despite this adoption, it is affirmed that no further steps have been taken to transform its exhortations into action (Popp, 2014).

In line with Sustainable Development Goal (SDG) 13 (United Nations, n.d.), the African Union aims at enhancing regional resilience toward the negative impacts of climate change. This requires an extensive transformation of society and its institutions. As a party to the Paris Agreement, African countries must establish Nationally Determined Contribution (NDC) indicators, which must be updated every five years (United Nations, 2021). With this realisation, many African governments have taken bold steps to respond to climate change challenges by developing and implementing ambitious national policies and strategies. For example, Zimbabwe revised its NDC and committed to pursuing a just transition to a climate-resilient, low-carbon economy (WHO African Region, 2018; United Nations Development Programme, 2021). Rwanda has also committed to cutting emissions across key sectors of its economy by 38 percent by 2030 (United Nations, 2021). The Ugandan Government in 2018 launched Africa's first NDC Partnership Plan (2018-2020) aimed at strengthening gender-responsive policies and institutional frameworks for effective climate governance, increased funding for climate action, institutional monitoring, reporting and verification systems for GHG emissions, and capacity (Partnership in Action, 2021).

Yet many African countries face constraints in developing and implementing their NCDs, including inadequate finance, capacity, insufficient political commitment and most recently, the impact of economic downturn related to the pandemic of COVID-19.

2. Objectives

Interrelations of climate change, migration, and health, need to be observed and analysed in many ways. One approach is to collect views and experiences from experts in the field of health and migration who are directly working with migrant and refugee communities in Africa.

The objective of this text is to provide an insight into views on climate change linked to migration and health from a community of interest in the field.

3. Material and methods

To collect and discuss the first-hand views and direct experiences of practice experts in the field of health and migration, a webinar on the interrelation of climate change, migration, and health was organized. Experts invited to take part in the webinar were facilitators and participants of two online courses on health and migration.

These courses were developed and implemented in a co-operation of the Center for Health and Migration, Vienna, Austria, with the Makerere University, Department of Social Work and Social Administration (SWSA), School of Social Sciences, Kampala, Uganda, the International Organization for Migration – UN Migration (IOM). In 2021, plans and funding (main funding source: Austrian Government, Federal Ministry of the Interior) was at hand to implement two courses with a total of 130 participants from 11 countries (Uganda, Democratic Republic of Congo, Sierra Leone, Somalia, South Africa, Sudan, South-Sudan, Tanzania, Zambia, Zimbabwe, Turkey) with lectures from 20 facilitators from 11 countries and support from Lancet-Migration (Orcutt et al., 2020), due to the Covid-19 Pandemic as online courses.

The curriculum was based on previous courses developed with the International Organization for Migration (IOM) in 2014 and on a stakeholder analysis and needs assessment done in 2021. The needs assessment, done within four identified stakeholder groups (governments, international organisations like WHO and IOM, academia, NGOs) identified core topics relevant to health and migration. Climate change initially was not among the raised topics and therefor was not covered in the course with a dedicated lecture. However, along with the implementation of the courses, the discussions around health and migration topics continuously raised climate change issues concerning infectious as well as non-infectious diseases, sexually transmitted diseases, gender-based violence, physical and mental health. Climate change emerged as a cross-cutting issue relevant to migrant health.

It was therefore decided to organise a webinar on the topic and invite course participants and facilitators.

An invitation was sent out by email to participants and facilitators of the courses on October 20 and in a reminder email on October 27, 2021.

Twenty participants and five facilitators accepted the invitation and took part in the webinar. Fifteen participants are males, ten females.

Webinar participants are affiliated with international organizations, governmental organizations, non-governmental organizations and universities. Ten participants are engaged in research and teaching, three in policymaking, six participants work as health and social care providers for migrants, and six work in programme management in health and migration, e.g in food assistance programmes.

Majority of participants is from Uganda, others are from Ethiopia, Kenia, South Sudan, Sudan, Zambia and Zimbabwe. The names of the participants can be found in the list of authors and in the acknowledgement.

The two-hour webinar was moderated by two of the authors, Ursula Trummer and Sonja Novak-Zezula. It took place on the 3rd of November 2021 on ZOOM.

Participants gave consent for the webinar to be recorded. Documentation of the webinar includes the recordings of the session, the chat protocol and notes taken by the moderators. The material is with the authors and available upon request.

To start discussions, three questions were asked to the participants in the beginning: “In your field of work, 1) do you experience climate change, (2) do you see health being affected, and (3) do you see an impact on migration?”, with answers (1=yes; 0 =no) to be typed into the chat-box. A kind instruction was given to use past experiences, the context within own country, region and surrounding environment. The result was unanimous: all participants experienced climate change, see health effects and an impact on migration.

The three guiding questions also structured the subsequent open discussion. For each question, participants were asked to share their observations, experiences and knowledge.

In the cause of the discussion, two of the participants referred to specific cases to illustrate their experiences. One of these cases was about climate change effects on health and migration in the Sudanese regions of Darfur and Kordofan. The other one was on the case of Cyclone Idai in Chimanimani and Chipinge, Zimbabwe and its impact on health and migration. Following up and deepening these contributions, the two participants prepared case studies on basis of desk research for this article.

The definition of dimensions to structure results from the webinar was done in four steps.

In step 1, the two moderators directly after the webinar went through their notes together to capture the discussion points when they were still fresh on the minds.

In step 2, the two moderators independently consulted the recordings and the chat protocol and for themselves clustered discussion points thematically.

On this basis, step 3 was a synthesis and deriving of dimensions for a first topical classification of webinar results by the moderators.

In step 4, the classification was discussed within the group of authors in an online meeting. The group agreed upon the following dimensions to be used for a systematization of webinar results: (1) health determinants, (2) sexual and reproductive health, (3) mental health and (4) environmental health.

4. Results

4.1. Results from the discussion at the webinar

Regarding the four dimensions (1) health determinants, (2) sexual and reproductive health, (3) mental health and (4) environmental health, discussed factors can be summarized as follows:

In the discussion, climate change was addressed as an additional cause for migration and an additional burden for migrants with its direct effects on (1) health determinants like nutrition, water supply, hygiene, housing, and safe environments. Immediate effects of deterioration of those health determinants on physical health were described, e.g. diarrhea, scabies, and dehydration.

An important topic brought up was (2) sexual and reproductive health. Discussions pointed at the special affectedness of women and children, with their sexual and reproductive health severely deteriorated in insecure environments through the threat of being raped and the need to give sex for food and water. Access to condoms and other contraceptives for basic protection against sexually transmitted diseases and unwanted pregnancies was reported to be highly limited. The link between climate change and sexual and reproductive health is also illustrated in the case study of Cyclone Idai in Chimanimani and Chipinge, Zimbabwe, below. It shows that climate change caused natural disasters can create living circumstances which expose girls and women to gender-based violence and force them into transactional sex. Participants observe that this causes an increase of sexually transmitted diseases and teenage pregnancies.

The traumatic experience of floods and the sudden loss of shelter and the possibility to take care of basic needs as well as the hardship described above also affect (3) mental health. It was mentioned that stress disorders and depression are common, yet not diagnosed and left untreated.

(4) Environmental health was another topic raised. This addressed the contamination of water, deforestation, as migrants and displaced people need to cut trees for firewood for cooking, and mismanagement of waste. It was reported that environmentally displaced populations settle in virgin areas and rather depend on the environment to meet their survival needs such as shelter, fuelwood for cooking, agriculture,

grazing and income generation. As their stay becomes protracted, they entirely depend on the host environment to sustain their livelihood which further degrades the environment. These findings touch the vicious cycle of climate change reducing resources (food, water, a safe environment) causing and aggravating conflicts that lead to an increase of migration and an increased vulnerability concerning health, and leading to additional environmental deterioration.

4.2. Results from the case studies

To illustrate and deepen the general points made above, two cases referring to local and regional circumstances and effects of climate change on migration decisions and health are presented in what follows. The first case describes the situation in two Sudanese regions, Darfur and Kordofan, and illustrates the interrelation between climate change and conflict, pointing at public health concerns in migrants and refugees. The second case from Zimbabwe and the two regions of Chimanimani and Chipinge illustrates how a specific climate change related natural disaster impacts on health and displacement.

4.2.1. Case of regions of Darfur and Kordofan: a witness to the results of world global climate change on Sudan's resources, health, and migration patterns

Sudan's Initial National Communication analysis (INC, 2003) to the UNFCCC indicates that average temperatures are expected to rise significantly relative to the baseline (1961-1990). By 2060, average temperatures are expected to rise from between (1.1-1.5 oC) and (2.1-3.1 oC) above the baseline. Average rainfall is expected to drop by about 6 mm per month during the time of year. Such changes in temperature and precipitation are likely to undermine the developing process that's occurring in many sectors in Sudan even more (UNEP, 2009).

Rainfall is very variable and is becoming increasingly unpredictable. In Sudan, the rainfall differs from north to south, indicating that rainfall is incredibly variable in time and space (showing both temporal and spatial changes and irregularities). During the period (1981-2012), the rainfall within the full country was significantly lower as compared to the (1971-2000) period. This was very clear within the central and northern parts of the country, while the southern parts experienced less decrease. There was a vicinity within the southern parts of central Sudan, where the rainfall increased during the last ten years.

Almost all the States saw variability within the number and distribution of rainfall, decrease in annual rainfall, change within the number of rainy days, delay within the beginning of the season, and an increase in dry spells during the year (SNC, 2013).

On another note, historically, nomadic tribes inhabited the drier North of Darfur and relied on limited water resources such as wells and rely upon farming for themselves and their herds. During the season, they may travel south with their animals into the more rich and spacious Southern farmlands and would migrate back North with the onset of the rains. These tribes use high degree mobility to pander to the unpredictable local climate. Due to the worsening conditions with drought what had started as a traditional seasonal migration pattern involving mostly adult men eventually became a permanent migration involving whole families (de Ramaix, 2011).

Agricultural resources saw desertification, soil erosion and soil exhaustion, in part due to climate change induced conflict, hence we can see the strong link between local conflict and environmental degradation of rangeland and rain-fed agricultural land in the drier parts of Sudan- north Darfur in this case (Debnath, 2019). Taking an example from one instance of conflict in the region of Darfur that was elicited by climate crisis: The Arab-Fur war of 1987-1989, where the environmental causes of the Arab-Fur war subsume the droughts of 1984-1985 and of the early 1970s, and the migration from North Darfur to other parts of the region, which put more pressure on the farming communities to manage their resources (Brow, 2010).

The conflict, on the other hand, has impacted the migration and nomadic seasonal mobility, which restricted the movement of people (International Organization for Migration, 2019) and contributed to even more loss of livelihood strategies, assets, properties and livestock. And consequently, aggravating the climate change damage further (Joseph et al., 2017).

Another major factor to be considered when talking about resources is livestock growth rate. In northern and central Sudan alone, it is estimated to have increased by over 400 percent between 1961 and 2004. Moreover, Sudan has an overall population growth rate of over 2.6% percent per annum (Tanner, 2009), which would be higher in case of large-scale in-migration, such as migration from north to south Darfur and Kordofan. These factors put big pressure on the state of the environment in the region and the sustainability of resources.

Public Health concerns:

The health sector can be described as one of the foremost vulnerable sectors to the negative impacts of worldwide global climate change. It has been illustrated that malaria transmission had increased and can potentially rise substantially by 2030 and 2060 in Kordofan State with the foreseen increase in temperature. The correlation between temperature and precipitation of malaria, meningitis (Shirber, 2022), and leishmaniasis diseases that afflict plenty of individuals throughout the country is evident. Just as important, changes in climate might alter the distribution of major vector species and increase the spread of diseases (such as Malaria and Kala-Azar) to new areas. Additionally, it may also bring new and unexpected ones. We can expect to see the spread of waterborne diseases (such as Bilharzia), as well as diseases that spread because of lack of water and it's decreased quality (such as trachoma, skin diseases). For several of the States, the spread of malnutrition can be identified as an outcome of food deficiency caused by climate changes resulting in food insecurity. Public health issues associated with these diseases in Sudan could be expected with a significantly increased risk of malaria under climate change (Zakieldeen, 2009).

4.2.2. Climate change, displacement and health: a case of Cyclone Idai in Chimanimani and Chipinge, Zimbabwe

The March 2019 Cyclone Idai, which devastated and displaced tens of thousands of people and households in Southern Africa, highlights the complex intersection of climate change, health, and migration at different phases of the migration cycle. In the pre-migration phase, climate change generates weather hazards that initiate migration due to displacement and adaptive migration to safer places. In Zimbabwe, the cyclone affected over 270 000 people, displaced at least 51 000 people, over 340 people dead and left many missing (Chatiza, 2019). Chimanimani and Chipinge districts were hit the hardest with 115 000 people affected in Chimanimani and 122 000 in Chipinge (Zinyange and Wachiaya, 2019). The cyclone damaged homes, fields, schools, roads and of particular interest to this case study is the damage of about 250 boreholes, 18 urban and peri-urban water supply systems and 13 healthcare centres which had direct consequences on the displaced people. The cyclone disrupted livelihoods which resulted in large-scale migrations that far exceeded the management capacities of governments and humanitarian actors (Chapungu, 2020).

In response to the disaster, the Zimbabwean government with the assistance of non-governmental originations resettled the displaced masses at temporary campsites in Chimanimani and Chipinge. In these camps, challenges were ranging from inadequate safe shelter, food, health care services amongst others. At this point, climate change-induced Cyclone Idai intersects with the migration cycle by creating and exacerbating vulnerabilities in the displaced populations. These challenges disproportionately affected populations with pre-existing vulnerabilities such as women and children. Women and girls in the camps faced dangers such as inadequate housing, gender-based violence (GBV), and poor coping techniques such as transactional sex (Chapungu, 2020). Musasa Project a Zimbabwean NGO reported about 49 cases of physical woman abuse, five of rape and 26 of sexual abuse, showing that the disaster exposed women survivors to GBV (Chatiza,

2019). The story of Maria Ndagurwa (35), a mother of five from Old Location in Chimanimani epitomizes the vulnerability of women. She narrated how one male relief food distributor demanded sex in exchange for food from her and other women, she remarked, "One woman confided in me that she had slept with the man in the bushes for a 2 litre bottle of cooking oil" (Zinyange and Wachiaya, 2019). Transactional sex became a means of survival for the displaced women in Chimanimani.

Furthermore, the concentration on the immediate healthcare needs induced by the cyclone resulted in the suspensions in services that provide prevention and treatment for HIV and other sexually transmitted infections also had a greater impact on women (United Nations Population Fund (UNFPA), 2019). More so, the cyclone's effects in other sectors had a direct impact on the health sector, for instance, losses in agriculture weakened food and nutrition security in affected areas, increasing risks of malnutrition (Chapungu, 2020).

Lastly, climate change interacts with migrants at the post-migration phase of the migration cycle mainly by increasing the pre-existing vulnerabilities amongst migrant and displaced populations. This is highlighted by the effects of Cyclone Idai on Tongogara Refugee Camp in Chipinge District. It is Zimbabwe's largest refugee camp hosting about 20,000 refugees and asylum-seekers from mainly Mozambique, Rwanda, the Democratic Republic of Congo and Somalia. Approximately over 2,000 houses, over 600 latrines and water boreholes were destroyed affecting about 5300 refugees and asylum seekers directly. The precarious conditions of the refugees were highlighted by the story of one of the survivors Deborah Kibangu, 44, who fled to Tongogara to escape conflict in the Democratic Republic of the Congo who said, "My children don't even have a single pair of shoes. Everything was washed away by the rains. Before the cyclone, my life was hard. Now it's just gotten worse" (Zinyange and Wachiaya, 2019).

Several explanations have been thrown in as reasons that exacerbated the conditions of the displaced people in Chimanimani and Chipinge. During the pre-cyclone period, the communities in Chimanimani and Chipinge did not benefit much from Meteorological Services Department of Zimbabwe warnings because the information was encrypted through language and terminological barriers (Chapungu, 2020). This created a barrier that heightened the vulnerability of the displaced people since the information did not effectively help them.

Chatiza (2019) argues that migration is a positive adaptation strategy in the context of climatic change because migration can reduce population pressure in places prone to climate risks and lessens strain on limited resources while alleviating other risks related to overpopulation, offering those who stay better economic opportunities that will increase their resilience to climate-induced impacts. However, there was a lack of migratory capacity among affected communities before and after the cyclone. Lastly, Zinyange and Wachiaya (2019) argue that the lack of an accepted definition of an environmental refugee means that, unless people are relocated by extreme weather events, their displacement does not trigger any access to financial grants, food aid, tools, shelter, schools or clinics.

5. Discussion and conclusions

The findings from the webinar and the two cases from Sudan and Zimbabwe provide initial anecdotal evidence of the close connection between climate change, migration, and health, in the African context and beyond.

From the experience of the webinar participants who are experts in the field of health and migration and who encounter climate change effects on health and migration in their professional practice, it could be stated that climate change aggravates issues of migration health by putting additional strain on already vulnerable communities when limited resources are additionally reduced and access to much-needed health care is extremely limited. People on the move in Africa increasingly start their journey when the effects of climate change are already felt on their physical and mental well-being at the departure stage, while the conditions they encounter along their journey tend to become increasingly hostile.

An additional need for health care is evident both for physical health as well as for mental health, with people affected by post-traumatic stress widely left without diagnoses and treatment.

Many issues raised in the discussion in the webinar are underlined in literature. For example findings from the discussions in the webinar regarding the specifical affectedness of women and children are in line with recent research findings (Mwenyango, 2020; Mwenyango, 2021) and also for the situation of refugees, where a study of the gendered dimensions of health in refugee situations in Nakivale refugee settlement, Uganda examined sexual and gender-based violence and found that women faced intimate partner violence, survival sex to meet basic needs such as food and to receive favors like construction of temporary shelter and sexual violence in the form of rape (Mwenyango, 2021).

Another example refers to aspects of environmental health: The observations shared on environmental health is in line with reports demonstrating that more than 95% of refugees and Ugandan host communities depend on forest biomass for firewood, timber and charcoal which affects air, water, soil and biodiversity (UNHCR, 2017). As livelihoods become unstainable resulting from depletion of environmental resources, conflicts arise and the migration cycle continues.

To conclude, the findings reveal a need for improvement in climate change governance and programming to ensure sustainable development and achieve global targets.

A low threshold way of starting discussions and collaboration towards building capacity for climate change governance seem to be webinars as the one which is presented here. Webinars prove to be an easy to implement tool to collect first hand evidence from practice experts, to foster exchange of experiences, and to get people engaged in further collaboration and discussion

6. Recommendations

Participants in the webinar were in consensus that improvements in climate change governance only can be realized through collaborative efforts between developed and developing countries, with cross-sectional approaches involving different stakeholders from various policy and practice levels, and with interdisciplinary research and evidence-building that brings together research and practice experts from the fields on health, migration, and climate change.

Concerning collaboration between developed and developing countries and ear-marking of resources, major precedence was set in the recent COP26 Conference, when The NDC Partnership (Nationally Determined Contributions (NDC) Partnership, 2021) launched the Partnership Action Fund (PAF), with a commitment of $33 million accessible for developing countries to implement their NDCs (such as the unmet need for technical expertise, capacity building and mobilization of finance for developing countries to implement their NDCs (Nationally Determined Contributions (NDC) Partnership, 2021).

While this seems to be a limited budget given the challenges to be met, resource challenges should not be used as an excuse to evade consideration of climate change and its implications for vulnerable populations. African states should mainstream climate change in national development policies and programming to balance the need for survival and sustainable environment protection. Further research and information gathering is also key to sensitizing policy makers about the impact of climate change and the interrelation to health and migration.

In this context, a raising issue at the policy level in the views of field actors and health and migration observers is the legitimate claim for international protection and asylum of a growing number of African populations forcibly displaced by climate changes they have not caused. This debate is likely to occupy the policy debate scene in years to come.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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