



# Environmental Migration and Gender

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## ABSTRACT

Climate change is causing strong internal migration, and by 2050, 216 million people living in six regions of the world are expected to be forced to leave the area where they live and move to other areas. In particular, the number of environmental migrants is predicted to be 86 million in sub-Saharan Africa, 49 million in East Asia and the Pacific, 40 million in South Asia, 19 million in North Africa, and 17 million in Latin America after 27 years<sup>1</sup>. Among these regions, Central Asia and more than 5 million people living there prove that this problem is very urgent for the countries of the region<sup>2</sup>.

Migration is one strategy for adapting to climate change, and women and men experience migration differently. The experiences, needs and priorities of eco-migrants vary by gender. Women in society may be more affected by climate change because they are less financially well-off, less educated, physically weaker than other members of society, and have limited access to or ownership of natural resources. Achieving gender equality in the field of migration is difficult without specific time-bound strategies and “roadmaps”. The strategy of achieving gender equality has been adopted in our country, and this strategy plays an important role in the development of migration policy. After all, gender remains the most discussed issue of climate change.

## Keywords:

women, gender, vulnerable, human rights, climate change, displacement, migration policy, consequences, natural disasters, environmental migration, men, Uzbekistan

## Introduction

“If one girl in the family studies, has a higher education, a modern profession, the atmosphere in the house changes completely”<sup>3</sup>.  
President of the Republic of Uzbekistan Shavkat Mirziyoev

The ability to adapt and withstand changes due to environmental migration is also a directly gendered process. Individuals' ability to adapt depends to a large extent on their access to social and economic, educational, health and natural resources. Women are

<sup>1</sup> Clement, Viviane; Rigaud, Kanta Kumari; de Sherbinin, Alex; Jones, Bryan; Adamo, Susana; Schewe, Jacob; Sadiq, Nian; Shabahat, Elham. 2021. Groundswell Part 2: Acting on Internal Climate Migration. © World Bank, Washington, DC.

<http://hdl.handle.net/10986/36248>

<sup>2</sup> [https://uza.uz/uz/posts/markaziy-osiyoda-iqlim-ozgarishi-muammolari-echimlar-qanday\\_484141?q=%2Fposts%2Fmarkaziy-osiyoda-iqlim-ozgarishi-muammolari-echimlar-qanday\\_484141](https://uza.uz/uz/posts/markaziy-osiyoda-iqlim-ozgarishi-muammolari-echimlar-qanday_484141?q=%2Fposts%2Fmarkaziy-osiyoda-iqlim-ozgarishi-muammolari-echimlar-qanday_484141)

<sup>3</sup> Ўзбекистон Республикаси Президенти Шавкат Мирзиёевнинг Халқаро хотин-қизлар кунига бағишланган тантанали маросимдаги нутқи <https://president.uz/uz/lists/view/6013>

disproportionately affected by environmental migration, given that they are generally disadvantaged, poorly educated, physically weak, and have limited direct access to or ownership of natural resources<sup>1</sup>. For example, climate change is now predicted to negatively impact food production and the availability of natural resources such as water. The impact of this situation on women is enormous in developing countries, where the economic and social gender division is deeper.

There is very little research on environmental migration, and its impact on women is understudied. Climate change may not only affect women directly through environmental changes such as sea level rise or temperature rise, but may also make them more vulnerable due to the interaction of socio-cultural factors (The Government Office for Science, 2011). For example, unequal gender relations and access to resources may make women more vulnerable to climate change than men<sup>2</sup>.

In recent years, several studies have examined the relationship between climate change, migration and gender using concrete phenomena. A number of studies have been conducted using data obtained from long-term follow-up data covering a period of ten years in the country of Nepal<sup>3</sup>. Although the focus is solely on the impact of environmental degradation on out-migration, gender issues are central to all studies. A decrease in agricultural productivity increases the likelihood of local migration. Therefore, **climate change-related migration of women has been proven to be closely related to the degradation of natural resources.**

<sup>1</sup> Demetriades J and Esplen E 2010 The gender dimensions of poverty and climate change adaptation Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World ed R Mearns and A Norton (Washington DC: The World Bank)

<sup>2</sup> Masika R 2002 Editorial Gender Dev. 10 2–9

<sup>3</sup> Shrestha S S and Bhandari P 2007 Environmental security and labor migration in Nepal Popul. Environ. 29 25–38

Massey D, Axinn W and Ghimire D 2007 Environmental Change and Out-Migration: Evidence from Nepal (Ann Arbor, MI: Population Studies Center, University of Michigan Institute for Social Research) Bohra-Mishra P and Massey D S 2010 Environmental Degradation and Out-

## Environmental migration and gender - analysis of the numbers

At the international level, measures to reduce the impact of human activity on the environment are being actively developed and implemented in order to reduce and eliminate the consequences of environmental problems. However, insufficient attention is paid to the protection of the rights of environmental migrants who are forced to move outside their usual place of residence. At the beginning of the 21st century, about 20-25 million internal migrants were recorded for environmental reasons<sup>4</sup>, and during the 2-year period from 2008 to 2010, about 95 million people were forced to displace as a result of natural disasters<sup>5</sup>.

We can observe that the situation of environmental migration has been dynamic in Uzbekistan for several years. Deterioration of the ecological situation in the Aral Sea and a number of regions of the republic is causing irregular settlement of people in more favorable regions of the country. This factor creates a lack of jobs, increases the unemployment rate in regions and cities with high population density, and creates difficulties for the urban housing stock. In fact, the situation in the Aral Sea continues to create new environmental migrants<sup>6</sup>. The Aral Sea has dried up over the years and has now turned into a desert of sand and harmful salts, covering 40,000-50,000 square kilometers. More than 100,000 of the nearly 2 million people living in the Republic of Karakalpakstan have already left the region after the Aral Sea basin dried up. Fishing, which was once the main source of the Republic's

Migration: New Evidence from Nepal (Princeton, NJ: Office of Population Research, Princeton University)

<sup>4</sup> Forced Migration Review, №20, May 2004, p. 40. URL: <http://www.fmreview.org/sites/fmr/files/FMRdownloads/en/sustainable-livelihoods.pdf>

<sup>5</sup> Displacement due to natural hazard-induced disasters. Global estimates for 2009 and 2010, June 2011, P. 14-15. Norwegian Refugee Council's Internal Displacement Monitoring Centre (NRC-IDMC). URL: [https://www.preventionweb.net/files/20220\\_idmcnaturaldisasters200920101.pdf](https://www.preventionweb.net/files/20220_idmcnaturaldisasters200920101.pdf)

<sup>6</sup> <https://migrants-refugees.va/country-profile/uzbekistan/>

economy, has now fallen behind the cultivation of cotton, rice and cotton.

Scientific and prognostic hypotheses about the existence of a real threat of increasing statistics of environmental migrants are presented in the reports of international intergovernmental<sup>1</sup> and non-governmental organizations<sup>2</sup>, as well as in the doctrine of international law<sup>3</sup>.

At the same time, the possibility of determining not only the exact number of environmental migrants in our country, but also an approximate calculation or even a forecast **remains problematic**. After all, although the Statistics Agency, the Ministry of Ecology, Environmental Protection and Climate Change, and the Main Directorate of Migration and Citizenship of the Ministry of Internal Affairs have general statistical information on their activities, **they do not have** accurate and detailed statistics on the causes of migration or other criteria. This is explained by the insufficiency of studies on migration processes in our country in connection with ecological problems, and also by the fact that the relevant state agencies do not keep a report form on environmental migration. However, despite the lack of statistics on environmental migration, it is commendable that the official website of the Statistics Agency pays special attention to the gender aspects of general migration. For example, according to him, in 2022, the total

number of people who immigrated to Uzbekistan was 214,821, of which 85,564 were men and 129,257 were women. During the same period, the total number of people who emigrated from Uzbekistan was 221,319, of which 88,500 were men and 132,819 were women<sup>4</sup>.

In the 1st quarter of 2023, the total number of immigrants was made up 51.5 thousand people, of which 21.3 thousand were men, 30.2 thousand were women, 44.7 thousand were in urban areas, 6.8 were in rural areas. The main part of those who immigrated to the Republic of Uzbekistan from foreign countries are the Russian Federation (30.3% of all immigrants from abroad), the Republic of Kazakhstan (25.9%), the Republic of Tajikistan (17.7%), the Kyrgyz Republic (6.2%), Ukraine Republic (1.2%) and other countries (18.7%). During the same period, the number of emigrants was 54,600, of which 22,900 were men, 31,700 women, 45,500 in urban areas, 9,100 in rural areas<sup>5</sup>.

The analysis of total emigrants in the months of January-December 2022 by the regions of the Republic of Uzbekistan shows that Takhtakopir district with the highest migration coefficient is 54.9 per thousand, Zangiota district 39.2 per thousand, Sergeli district 33.4 per thousand, Qibray district 32.2 per thousand and Chilonzor 28.9 per thousand<sup>6</sup>.

<sup>1</sup> Бирлашган Миллатлар Ташкилотининг Инсон Хуқуқлари Кенгаши (УНХП), 10-сессия (2009 йил 15 январ). Бирлашган Миллатлар Ташкилотининг Инсон хуқуқлари бўйича Олий комиссари бошқармасининг иқлим ўзгариши ва инсон хуқуқлари ўртасидаги муносабатлар ҳақидаги ҳисоботи: расмий. матн // A/HRC/10/61. § 55. URL:

<https://undocs.org/ru/A/HRC/10/61>

<sup>2</sup> Human Tide: the Real Migration Crisis, May 2007. A Christian Aid Report, p. 22. URL:

<https://www.christianaid.org.uk/sites/default/files/2017-08/human-tide-the-real-migration-crisis-may-2007.pdf>

<sup>3</sup> Westra L. Environmental Justice and the Rights of Ecological Refugees. – London: Earthscan, 2009, p. 149; Myers N. Environmental Refugees in a Globally Warmed World // BioScience, December 1993. – Volume 43. – No. 11. – P. 758; Gemenne F. Climate-Induced Population Displacements in a 4° C + World // Philosophical Transactions of the Royal Society A, 2011. – Volume 369. – P. 182; The World Bank. Accommodating Migration to Promote Adaptation to Climate Change by Jon Barnett and

Michael Webber, 2010. - P. 4. URL:

<https://openknowledge.worldbank.org/bitstream/handle/10986/3757/WPS5270.pdf?sequence=1&isAllowed=y>; Stern N.

The Economics of Climate Change: The Stern Review – Cambridge: Cambridge University Press, 2007, p. 77.

<sup>4</sup> Ўзбекистон Республикаси Президенти ҳузуридаги Статистика агентлигининг расмий сайти:

[https://stat.uz/uz/?preview=1&option=com\\_dropfiles&format=&task=frontfile.download&catid=401&id=2736&Itemid=1000000000000](https://stat.uz/uz/?preview=1&option=com_dropfiles&format=&task=frontfile.download&catid=401&id=2736&Itemid=1000000000000)

<sup>5</sup> Ўзбекистон Республикаси Президенти ҳузуридаги Статистика агентлигининг расмий сайти:

[https://stat.uz/uz/?preview=1&option=com\\_dropfiles&format=&task=frontfile.download&catid=412&id=2797&Itemid=1000000000000](https://stat.uz/uz/?preview=1&option=com_dropfiles&format=&task=frontfile.download&catid=412&id=2797&Itemid=1000000000000)

<sup>6</sup> Ўзбекистон Республикаси Президенти ҳузуридаги Статистика агентлигининг расмий сайти:

[https://stat.uz/uz/?preview=1&option=com\\_dropfiles&format=&task=frontfile.download&catid=401&id=2736&Itemid=1000000000000](https://stat.uz/uz/?preview=1&option=com_dropfiles&format=&task=frontfile.download&catid=401&id=2736&Itemid=1000000000000)

It is no coincidence that Takhtakopir district is the highest among these districts, because this region of the Republic of Karakalpakstan is known for its unstable ecological situation. Based on this point of view, we can conclude that environmental migration is increasing in our country in proportion to other causes of migration.

The results of the research conducted by the World Bank can clearly confirm our observations. In particular, according to a number of scholars, including Vivian Kleman, Kanta Kumari Rigo, Alex de Shirbinin, Brian Jones, Suzanne Adamo, Niyan Sadiq and Ilhom Shabahat, up to **5.1 million** environmental migrants may appear in Eastern Europe and Central Asia by 2050, which means **2.3% of the projected population**. Almost half of them - **2.4 million people** belong to Central Asian countries. The Fergana Valley, the outskirts of Tashkent and the lowlands of southern Tajikistan, as well as densely populated cities in the north of Kazakhstan, may become a zone of environmental migration. This is explained by water supply and crop productivity in these areas. Due to the decrease in water supply and crop productivity in the regions of southern Kazakhstan, Uzbekistan and Tajikistan adjacent to the Fergana Valley, as well as in the areas around Bishkek, there is a possibility that the regions of Eastern Turkmenistan and southern Uzbekistan located along the Amudarya River will become a potential outlet for environmental migrants<sup>1</sup>.

### **International Mechanisms and Practice**

Climate change poses different migration challenges depending on the scale of the problem. The consequences of migration are not the same for men and women, especially when the effects of climate change are gradually felt when a family member, usually a man, is forced to migrate in search of alternative livelihoods.

<sup>1</sup> Clement, Viviane; Rigaud, Kanta Kumari; de Sherbinin, Alex; Jones, Bryan; Adamo, Susana; Schewe, Jacob; Sadiq, Nian; Shabahat, Elham. 2021. Groundswell Part 2: Acting on Internal Climate Migration. World Bank, Washington, DC. <http://hdl.handle.net/10986/36248>

<sup>2</sup> UNFPA 2009 State of World Population 2009—Facing a Changing World: Women, Population, and Climate (New York: United Nations Population Fund)

Even if women are not forced to move from one place to another for livelihood, migration caused by climate change will affect them negatively. Similarly, as more men migrate from mountainous areas and rural areas to newly built cities, more and more women remain in flood-prone areas, becoming heads of households that are most vulnerable to climate-related disasters<sup>2</sup>.

Experts from the Intergovernmental Panel on Climate Change believe that climate change will affect people's livelihoods by reducing human health, food security and the efficiency of natural resources<sup>3</sup>. Recognizing the urgency of this problem, the Conference of the Parties to the **United Nations Framework Convention on Climate Change (UNFCCC)** in 2010 and 2011 included issues such as displacement, migration and planned resettlement as a result of climate change. In addition, the urgency of the problem is also justified in other documents, including Article 14(f) of the **Cancun Adaptation Framework**, which calls for a deeper study of the impacts of climate change on humanity and the inclusion of migration-related measures in migration policies and national adaptation strategies.

According to the UNFPA report<sup>4</sup>, migration requires economic and physical capabilities that are not available in any country. Women, children, and the elderly are generally vulnerable to environmental crises due to issues of capacity, resources, and security. Therefore, further analysis of women's vulnerability to climate change migration is needed to understand the gender dimensions of climate change migration drivers and the differential impact of climate change migration processes and outcomes on women.

In addition to environmental degradation and reduced access to natural resources, climate change and natural disasters also affect

<sup>3</sup> Intergovernmental Panel on Climate Change (IPCC) 2001 Climate Change 2001: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change

<sup>4</sup> UNFPA 2009 State of World Population 2009—Facing a Changing World: Women, Population, and Climate (New York: United Nations Population Fund)

women's likelihood of migration. A survey conducted by Bateman and Edwards (2002)<sup>1</sup> among coastal North Carolina residents following the devastating 1999 Hurricane Bonnie found that **women were more likely than men to need to evacuate after the disaster**. Conclusions from the above studies show that<sup>2</sup> women tend to migrate more than men because of family obligations, socially constructed gender differences, low economic status, special medical needs, and family care responsibilities. However, in some countries where the development of women's social activity is very limited, women are more likely to not be evacuated and die due to natural disasters<sup>3</sup>. Therefore, even voluntary migration of women due to climate change is highly dependent on social norms. Also, like other internally displaced women, climate-induced migrant women are at high risk of sexual violence<sup>4</sup>. It can be observed that women suffer more from the psycho-social effects of natural disasters than the migration of men<sup>5</sup>. It also found that temporary camps provided by emergency workers were not designed to meet the needs of women and children. In these camps, there were no facilities for women's safety, mental and reproductive health<sup>6</sup>. In order to feel the urgency of the problem, we can cite the example of India-Bangladesh migration due to the rising water level. Illegal migrant women from Bangladesh are either victims of human trafficking or denied any protection due to their illegal status<sup>7</sup>. Thus, climate change-induced migration can trap

women in poverty or force them to leave their homes permanently.

**The consequences of environmental migration are expressed differently in gender aspects.** On the one hand, this may appear to empower women, but on the other hand, it may actually worsen their socio-economic status. Women who are highly exposed but have very low adaptive capacities may be forced to move permanently. We can take as an example women affected by various typhoons who could not return due to lack of housing assistance and lack of employment. In this way, the negative consequences of natural disasters and climate change in the context of forced displacement also have an impact on the issue of gender.

In this way, the negative consequences of natural disasters and climate change in the context of forced displacement also have an impact on the issue of gender<sup>8</sup>. In particular, the negative impact of environmental disasters on the use of natural resources, land resources and information is **expressed differently in men and women**.

The nature of vulnerability and socio-economic conditions resulting from gender disparities in the household make migration the only means of survival for disaster-affected populations. For example, after a drought in some sub-Saharan African countries, labor migration of men increases, while marriage migration of women decreases. In particular, men and boys in herding communities are forced to migrate to neighboring areas in search of pasture and water. This has negative consequences such as

<sup>1</sup> Bateman J M and Edwards B 2002 Gender and evacuation: a closer look at why women are more likely to evacuate for hurricanes *Natural Hazards Rev.* 3, 107–17

<sup>2</sup> Bateman J M and Edwards B 2002 Gender and evacuation: a closer look at why women are more likely to evacuate for hurricanes *Natural Hazards Rev.* 3, 107–17

<sup>3</sup> Fothergill A 1996 Gender, risk and disaster *Int. J. Mass Emerg. Disasters* 14, 33–56.

<sup>4</sup> Brown O 2008 Climate change and forced migration: observations, projections and implications Background Paper for the 2007 Human Development Report (Geneva: United Nations Development Programme)

<sup>5</sup> Mitchell T, Tanner T and Lussier K 2007 *We Know What We Need: South Asian Women Speak Out on Climate*

*Change Adaptation* (Brighton: ActionAid and Institute of Development Studies (IDS) at the University of Sussex)

<sup>6</sup> Mitchell T, Tanner T and Lussier K 2007 *We Know What We Need: South Asian Women Speak Out on Climate Change Adaptation* (Brighton: ActionAid and Institute of Development Studies (IDS) at the University of Sussex)

<sup>7</sup> Ramachandran S 2005 Indifference, impotence, and intolerance: transnational Bangladeshis in India *Global Migration Perspectives* (Geneva: Global Commission on International Migration) no. 42.

<sup>8</sup> Хеннебри Дж., Х. Кей Си и К. Уильямс, Гендер и данные о миграции: Руководство по управлению миграцией на основе фактических данных и с учетом гендерных аспектов. Международная организация по миграции (МОМ). Женева, 2021.

deterioration of traditional way of life and frequent conflicts with other communities due to competition for resources. The women of labor migrants suffer from the burden of certain responsibilities, as well as the increase in the volume of household work as a result of the departure of their husbands. They also face a number of discriminations in female-headed households. At the same time, insufficient statistical and other analytical data on the impact of post-disaster migration on men and women, children and youth can create certain problems. Even more worrying is the lack of funds to move women who are left without care or opportunity<sup>1</sup>. **In addition, women temporarily displaced by a natural disaster find it difficult to return to their neighborhoods and re-adapt even after the environmental hazards have been removed.** For example, women are clearly at a disadvantage compared to men when it comes to recovering lost documents, obtaining shelter and assistance, or compensation for damaged property. For example, women are clearly at a disadvantage compared to men when it comes to recovering lost documents, obtaining shelter and assistance, or compensation for damaged property.

In 2019, the government of Madagascar conducted a gender analysis to assess the impact of climate change on men and women. In order to eliminate the inequality between them, it is recommended to introduce new services and extend the existing ones to women as well<sup>2</sup>. Gendered environmental migration requires concrete policy measures. Such measures cannot be effectively designed or implemented without the collection and use of gender-specific and gender-specific data<sup>3</sup>.

In order to fully and effectively implement the rights of women, the issue of introducing a

gender-oriented approach in climate activities at the local, national, regional and international levels was emphasized in Resolution No. 38/4 of the Human Rights Committee of July 5, 2018, which clearly confirms the objective necessity of research in this regard. According to him, taking into account the gender approach in the policy to combat climate change serves to improve the effectiveness of climate change mitigation and adaptation. For this purpose, the Committee on Human Rights put forward the idea of holding an analytical study and expert discussion on this topic<sup>4</sup>.

In this study, the Office of the UN High Commissioner for Human Rights has considered the impact of climate change on women, defined the obligations of countries to introduce gender-oriented approaches, and has drawn up relevant conclusions and recommendations, giving examples of exemplary practices.

So, although most women can expand their rights and opportunities due to migration, it can also sometimes create specific threats for them. In particular, as a result of environmental migration, in many cases, women remain highly likely to become victims of sexual and gender-based violence. At the same time, the economic consequences of climate change may increase the number of victims of human trafficking and forced marriage among women and children<sup>5</sup>.

In this way, the negative consequences of climate change encourage people to migrate, as well as affect gender dynamics, reinforcing traditional gender roles or, conversely, perpetuating existing inequalities. For example, male migration due to a natural disaster can increase and expand women's decision-making power in agriculture. But while income from agriculture accounts for a fraction of income from other sectors, the growing role of women

<sup>1</sup> Virginie Le Masson, Sheri Lim, Mirianna Budimir, Jasna Selih Podbo. Disasters and violence against women and girls: can disasters shake social norms and power relations? Overseas Development Institute, 2016. – 21 p.

<sup>2</sup> Хеннебри Дж., Х. Кей Си и К. Уильямс, Гендер и данные о миграции: Руководство по управлению миграцией на основе фактических данных и с учетом гендерных аспектов. Международная организация по миграции (МОМ). Женева, 2021.

<sup>3</sup> Chindarkar N. Gender and climate change-induced migration: proposing a framework for analysis // Environmental Research Letters, Volume 7, Number, 2, 2012. DOI 10.1088/1748-9326/7/2/025601

<sup>4</sup> <https://www.ohchr.org/ru/climate-change/human-rights-council-resolutions-human-rights-and-climate-change>

<sup>5</sup> Human Rights Watch, "Marry before your house is swept away: child marriage in Bangladesh", 9 June 2015.

in the agricultural sector exacerbates gender inequality<sup>1</sup>.

### **Suggestions and recommendations (as conclusion)**

An 80 percent reduction in environmental migration can be achieved by taking urgent and concerted action worldwide to reduce various harmful substances and support green, inclusive and sustainable development<sup>2</sup>. The negative consequences of climate change require the mobilization of certain efforts by countries for the effective implementation of women's rights. In particular, the following urgent measures may be recommended:

to mitigate the negative consequences of climate change at all levels and ensure the full, equal and constructive participation of women from different levels of society (providing safe transportation and taking care of the children of working women)<sup>3</sup>;

promoting equal rights and opportunities for women in agriculture, strengthening their rights to land;

expanding women's access to credit and finance, information and communication technologies, infrastructure and other resources and improving their working conditions;

taking into account age, social status, disability, nationality and other similar characteristics in researching the impact of climate change on women from a human rights perspective;

taking effective measures to prevent and solve problems related to sexual and gender-based violence in environmental migration by reducing natural hazards and ensuring the effective participation of women in the implementation of migration policies;

the experiences, needs and priorities of eco-migrants vary by gender and that governments

consider these differences so that they are fair when making policies;

that governments, donor organizations and civil society institutions take responsibility to initiate efforts to promote women's education, health, agricultural knowledge and rights that reduce the impact of climate change on women; when researching the challenges of climate change-related migration in developing countries, researchers focus on the fact that women are one of the most vulnerable groups in this process;

conduct interdisciplinary research on environmental migrants that articulates the experiences and impacts of men and women to further understand gender criteria;

creation of a single database on migrants that takes into account the gender aspects of migration policy;

to achieve gender equality through flexible mechanisms, in particular time-bound strategies and "Roadmaps" instead of laws;

mobilizing all available resources to reduce emissions at the global level and achieve the goals of the Paris Agreement on Climate Change; taking into account the factor of internal environmental migration in long-term planning of sustainable development;

making internal migration one of the adaptation strategies and preparing for each stage of migration in this regard;

investing in foundational research aimed at uncovering the essence of the driving forces of internal environmental migration in order to formulate sound policies<sup>4</sup>.

<sup>1</sup> FAO, The State of Food and Agriculture: Migration, Agriculture and Rural Development (2018), [www.fao.org/3/I9549EN/i9549en.pdf](http://www.fao.org/3/I9549EN/i9549en.pdf)

<sup>2</sup> Clement, Viviane; Rigaud, Kanta Kumari; de Sherbinin, Alex; Jones, Bryan; Adamo, Susana; Schewe, Jacob; Sadiq, Nian; Shabahat, Elham. 2021. Groundswell Part 2: Acting on Internal Climate Migration. © World Bank, Washington, DC. <http://hdl.handle.net/10986/36248>

<sup>3</sup> Analytical study on gender-responsive climate action for the full and effective enjoyment of the rights of women : report

of the Office of the United Nations High Commissioner for Human Rights // A/HRC/41/26 <https://digitallibrary.un.org/record/3807177?ln=en>

<sup>4</sup> Clement, Viviane; Rigaud, Kanta Kumari; de Sherbinin, Alex; Jones, Bryan; Adamo, Susana; Schewe, Jacob; Sadiq, Nian; Shabahat, Elham. 2021. Groundswell Part 2: Acting on Internal Climate Migration. World Bank, Washington, DC. <http://hdl.handle.net/10986/36248>