doi:10.1017/aju.2025.10001

SYMPOSIUM ON FINANCING CLIMATE MOBILITY

# CLIMATE IMPACTS ON HUMAN MOBILITY: INNOVATIVE APPROACHES TO FINANCE THE RESPONSE

*Lindsay Jenkins*[*]

Climate shocks and stresses increasingly contribute to migration and displacement, at a time when global humanitarian and development needs continue to far surpass available foreign assistance. This essay outlines how innovative finance strategies and diverse financial networks are crucial for addressing climate change's impact on human mobility. It highlights three relevant approaches—debt swaps, blended finance, and diaspora financing—that leverage the power of individuals, partnerships, and the private sector to advance climate action, individual dignity, and local solutions.

Whether due to extreme weather events, loss of livelihoods, food and water insecurity, rising sea levels, or conflict exacerbated by the climate crisis—people face decisions of whether to remain in their communities or seek stability elsewhere. This is a challenge not only for those within their home countries but also for refugees and migrants who have already crossed borders. Financing climate actions that allow people to remain in their home communities or to stabilize and thrive in their new ones while becoming agents of climate mitigation, adaptation, and resilience, is not an ideal—it is an imperative.

Broadly speaking, climate action has been financed through traditional public finance (bilateral and multilateral). Yet the state of humanitarian and development assistance globally has long suffered a severe imbalance: the needs dramatically outpace the availability of resources. The scale and scope of the impacts of climate change will only exacerbate this deficit, including in relation to migration and displacement. With major donor countries like the United States stepping back from foreign assistance, public finance cannot carry the day alone.

Over the past twenty-five years, local to global actors have built a diverse set of tools to finance climate, humanitarian, and development efforts. These include innovative instruments that mobilize capital beyond aid and empower those impacted—communities, refugees, vulnerable groups—as investment partners. Solutions addressing climate change impacts on human mobility can tap into this toolbox and attract private, philanthropic, and individual funding to close gaps and support sustainable responses. This essay briefly lays out three such approaches: debt swaps, blended finance, and diaspora finance.

The first two are considered "innovative finance" approaches, meaning they not only draw in new funding and investors beyond traditional public financing but can also be more efficient and accountable.[1] The third is more a traditional finance flow, though with great potential to catalyze climate action investments with the right incentives. Each leverages partnerships with private actors and the private sector to multiply impacts. All have the potential to promote the inclusion of displaced people and migrants as agents of adaptation and resilience

* *Former Senior Advisor, Bureau of Population, Refugees, and Migration, U.S. Department of State, Washington, D.C., United States.*

[1] Stuart Davies & Jose Palacin, *Innovative Financing Mechanisms and Solutions*, UNITED NATIONS ECONOMIST NETWORK (2022).

© The Author(s) 2025. Published by Cambridge University Press for The American Society of International Law. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution and reproduction, provided the original article is properly cited.



https://doi.org/10.1017/aju.2025.10001 Published online by Cambridge University Press

alongside their new communities and to advance dignity and locally driven solutions. In some cases, these models are already deployed at the intersection of climate change and human mobility.

*State of Play: Need Versus Availability in Financing the Climate Change-Human Mobility Nexus*

Climate impacts carry an increasingly heavy cost—for disaster response, infrastructure, lost livelihoods, health and social impacts, and beyond. By some estimates, this could be up to $39 trillion annually by 2050.[2] Developing countries face significant climate action costs due to limited resources and high debt. Developed countries have committed to annual climate finance goals to support developing nations' efforts to address climate impacts.[3] Meeting those goals requires a whole-of-society approach to commitments and contributions.

Thus far, most climate finance has come via public sources—bilateral grants, multilateral sources such as climate funds and, as Melissa Johns explores more in her essay, multilateral development banks (MDBs).[4] Private capital mobilized via public funding has increased as a portion of meeting that goal in recent years, owing largely to investment in sectors like clean energy, agriculture, and resilience.[5] But as donor countries reduce availability of public funding for development and humanitarian assistance, including for climate action, non-public sources will be ever more critical to meet climate finance imperatives.

As Janka Deli details elsewhere in this volume, currently there is no global accounting of climate finance toward actions addressing the impact of climate change on human mobility.[6] Such actions could include building adequate climate resilient housing in receiving communities; developing community disaster preparedness that includes migrants and displaced persons; increasing green livelihoods for migrants, refugees, and host communities; conducting environmental restoration projects in receiving communities; building climate resilience in fragile and conflict settings (FCS); and perhaps even planned relocation efforts, among others.

Given the scope of these efforts and the limited pool of public climate finance, innovative financing approaches and partnerships are essential to meeting the moment: they have the potential to be both more efficient and more responsive to local realities. As discussed below, particularly blended finance and diaspora finance can empower those impacted—refugees, migrants, and their communities—to respond to climate impacts at the local level and build resilience and stability. Innovative approaches can also foster coordination among a range of partners, thereby promoting efficiency and strengthening impact—all essential considerations in a resource-constrained world.

[2] Rebecca Newman & Ilan Noy, *The Global Costs of Extreme Weather That Are Attributable to Climate Change*, 14 NATURE COMMS. 6103 (2023).

[3] *See* Organisation for Economic Co-operation and Development (OECD), *Climate Finance Provided and Mobilised by Developed Countries in 2013–2022, Climate Finance and the USD 100 Billion Goal* (2024). *See also* UN Framework Convention on Climate Change, Decision 1/CM.6, paras. 7–8, New Collective Quantified Goal on Climate Finance, UN Doc. FCCC/PA/CMA/2024/17/Add.1 (Nov. 2024) (setting a "new collective quantified goal" (NCQG) of $300 billion annually from developed countries, and $1.3 trillion annually from all sources, by 2035).

[4] *See also* Lawrence Huang, Ravenna Sohst & Camille Le Coz, Financing Responses to Climate Migration: The Unique Role of Multilateral Development Banks, MIGRATION POL'Y INST. (Nov. 2022).

[5] *See* OECD, *supra* note 3.

[6] In establishing the NCQG, the UNFCCC "urge[d] . . . the inclusion and extension of benefits to vulnerable communities and groups in climate finance efforts, including . . . *migrants and refugees*, climate-vulnerable communities and people in vulnerable situations." UNFCCC, *supra* note 3, para. 26 (emphasis added).

https://doi.org/10.1017/aju.2025.10001 Published online by Cambridge University Press

*Approach 1: Debt Swaps for Countries Impacted by Climate Change and Human Mobility*

Under a debt swap (or debt "conversion"), a portion of a country's sovereign debt is refinanced—at lower interest rates or otherwise on more favorable terms—in return for a commitment to invest part of the resulting savings in specific social or environmental initiatives.[7] Debt swaps involve a range of parties including governments, development finance actors, MDBs, civil society, philanthropic actors, and the private sector.[8] These arrangements present a win-win: decreasing debt while driving impact. For these reasons, debt swaps present unique potential to finance large scale actions to address climate impacts on human mobility.

Successes with debt-for-nature[9] and debt-for-development swaps[10] have inspired proposals for debt-for-adaptation[11] and debt-for-humanitarian action swaps.[12] Either proposal could be tailored to address climate mobility in debt-burdened countries. For instance, debt swaps could fund climate action in communities at risk of out-migration, helping them instead to stabilize in place. These actions could include strengthening coastal defenses to rising sea levels, green energy access, or drought-resistant agriculture. Debt swaps could also finance support for displaced populations and their host communities, including climate resilient housing or microfinance for climate-adaptive enterprises.

Take as an example refugee host countries. Globally, 40 percent of refugees are hosted in highly climate vulnerable countries.[13] Special concessional financing and grant instruments already support developing countries that host refugees, with the aim of promoting refugee inclusion in development opportunities.[14] Many of these same countries increasingly must respond to growing climate shocks, such as water scarcity, drought, increased storm intensity, and other impacts. This compounding pressure is difficult for even middle-income developing countries.[15] Debt swaps could help address this dual imperative, without driving up debt burdens.

[7] Int'l Monetary Fund, Strategy, Policy & Rev. Dep't & World Bank, *Debt for Development Swaps: An Approach Framework* (Policy Paper No. 2024/038, 2024).

[8] Debt swaps allow development finance actors and multilateral banks to reduce debt risk, enabling private refinancing at lower interest rates and saving funds over time. Philanthropies and non-governmental organizations are also often involved, whether contributing capital or overseeing the social or environmental impact components.

[9] In 2023, Ecuador refinanced $1.6 billion in debt through a "debt-for-nature" swap, committing $450 million to marine conservation in the Galápagos. *See* U.S. Int'l Dev. Fin. Corp., *Financial Close Reached on Largest Debt Conversion for Marine Conservation to Protect the Galápagos* (Mar. 9, 2023). A subsequent swap secured $800 million in net savings for Ecuador, in exchange for a $450 million investment in a program to protect the country's Amazon ecosystems. *See* The Nature Conservancy, *Ecuador Announces Debt Conversion for Amazon Conservation Through TNC's Nature Bonds* (Nov. 7, 2023).

[10] Indonesia secured a €75million "Debt2Health" conversion in return for investments in combating malaria. *See* The Global Fund, *Germany and Indonesia Sign Landmark Debt Conversion Agreement* (Dec. 16, 2024).

[11] Zuhaib Anwar et al., *Debt-for-Adaptation Swaps: A Financial Tool to Help Climate-Vulnerable Nations*, Brookings (Feb. 9, 2024).

[12] *See, e.g.*, Int'l Rescue Comm'n, *Humanitarian Debt Swaps*, Airbel Impact Lab (last visited Mar. 17, 2025).

[13] *See* UNHCR & UN Office of the High Comm'r for Human Rights, Climate Change, Displacement and Human Rights (2022). At the end of 2023, 90 million of the world's *total* forcibly displaced—refugees *plus* asylum seekers, internally displaced persons, and stateless persons—lived "in countries with high-to-extreme exposure to climate-related hazards." *See* FN 27, at p. 9.

[14] Instruments include the World Bank's International Development Association (IDA) Window for Refugees and Host Communities (WRH) for low-income countries and the Bank's Global Concessional Finance Facility (GCFF) for middle-income countries. Many projects already fund climate actions. *See* World Bank, *Window for Host Communities and Refugees, IDA19 Replenishment*; World Bank, *Global Concessional Finance Facility*.

[15] The Hashemite Kingdom of Jordan established its Climate/Refugee Nexus Initiative to draw attention to these dual pressures. *See* Shada El-Sharif & Marwan Muasher, *Jordan's Climate Change Adaptation Commitments* Carnegie Endowment for Int'l Peace (May 2024).

https://doi.org/10.1017/aju.2025.10001 Published online by Cambridge University Press

This also helps ensure that both host communities and refugees benefit from climate action, thereby reducing secondary displacement.

*Approach 2: Blended Finance at the Intersection of Climate Change and Human Mobility*

Blended finance incentivizes private capital investment in otherwise risky financial environments, to achieve both financial return as well as development or environmental outcomes. This approach "crowds in" resources from a range of partners, such as governments, MDBs and international financial institutions (IFIs), philanthropy, non-profit entities, and the private sector.

Whether by investing in local small- or medium-sized businesses, or bringing in outside private sector enterprise at scale, blended finance investments at the nexus of climate change and human mobility can generate positive, locally driven economic development for displaced people, migrants, and their host communities. These investments also can incentivize laws and policies that promote social inclusion and a stable business environment, while improving funder coordination—an essential consideration in resource-limited fields like climate mobility financing.

Many investment opportunities in developing countries—including in humanitarian contexts—already are responsive to climate impacts. Whether through climate smart agriculture,[16] renewable energy providers,[17] electric motorbike companies,[18] circular economy enterprises,[19] or even mangrove restoration efforts,[20] displaced people and their communities are often climate entrepreneurs by necessity. This can set a ready—and growing—investment pipeline for blended financing to mobilize private capital in support of green business development at the intersection of climate change and human mobility.

One example is the International Finance Corporation's (IFC) Kakuma Kalobeyei Challenge Fund (KKCF), which uses blended finance to spur private sector investment in Turkana County, Kenya, a major refugee-hosting region.[21] Partnering with the Africa Enterprise Challenge Fund, Turkana County, and the UN Refugee Agency (UNHCR), and with support from European development agencies, KKCF provided concessional finance and technical assistance. Through a business competition model, it attracted several refugee-led enterprises, including renewable energy and green technology.[22] By investing in these businesses, KKCF met local market needs, promoted green growth, and improved livelihoods, both for refugees and the host community. The model aligned donor and investor efforts to empower refugees as drivers of climate action and economic development, helping reduce climate-related displacement pressures.

*Approach 3: Catalyzing Diaspora Finance for Climate Action*

Diaspora finance, including remittances and structured investments, for climate action can help stabilize people in home countries and communities. Diaspora funds also can support climate action in host countries, building resilience among migrants and refugees while promoting social cohesion with their new communities. These funds can be more risk-tolerant and are often driven by local demand. Diaspora communities already

[16] UN Dev. Programme, Fostering Food Security and Increasing Water Use Efficiency Through Hydroponic Farming.

[17] Ashden, *Refugee Energy Access*.

[18] Ashden, *Gogo Electric's Motorbikes Are Greening Travel in Kenya*.

[19] Int'l Water Mgmt. Inst., *New Project Offers Circular Economy Solutions for Refugee and Host Communities in East Africa*.

[20] UNHCR, Mangrove Conservation Brings a Brighter Future for Fishing Community in Colombia.

[21] Kakuma Kalobeyei Challenge Fund (KKCF), *Who We Are*.

[22] *Id.*

https://doi.org/10.1017/aju.2025.10001 Published online by Cambridge University Press

increasingly are funding green initiatives in home countries.[23] Developing financial incentives to amplify the diaspora's impact can help bridge funding gaps for climate mobility.

Diaspora remittances are a major source of global financial flows, often rivaling official development assistance and foreign direct investment in low- and middle-income countries.[24] In 2024, several top remittance-receiving countries faced significant climate risks.[25] This includes many FCS countries,[26] where traditional climate finance is limited.[27] To encourage individual remittance investments in climate adaptation and resilience projects, governments, financial services providers, and donors can offer climate-focused financial products—lower transfer fees, discounted credit lines, or forms of insurance for green investments.[28]

Pooled remittances can support larger-scale climate action, as seen during the 2022 Pakistan floods, when the diaspora rapidly mobilized philanthropic aid for disaster response and recovery.[29] As with individual remittances, governments and private actors can incentivize pooled remittance investments in projects that meet climate action priorities. For instance, governments and philanthropic actors could "match" pooled remittances to fund larger scale adaptation and resilience projects in home communities.[30]

Whereas remittances are more personal transactions, diaspora investments are formal, structured financing, more along the lines of traditional business ventures. Opening opportunities for diaspora investment in green enterprises in home countries—such as climate-resilient infrastructure and renewable energy—can strengthen climate-impacted communities' ability to remain in place. Private, philanthropic, and development finance actors can identify good practices and design programs to catalyze eager diaspora investors. Combining diaspora investment with blended finance can bridge funding gaps, as seen with Ghanaian diaspora participation in a crowd-lending platform for green businesses.[31]

[23] *See* Jason Gagnon, David Khoudour & OECD, *Diasporas: The Invisible Heroes of Climate Action* (Dec. 20, 2023). The International Organization for Migration's "Diaspora for Climate Action" captures green financing good practices between Bangladesh, Ghana, Jamaica, and their diasporas in the United Kingdom. *See* Int'l Org. for Migration (IOM), *Diaspora 4 Climate Action Research Brief: The Opportunities and Challenges of Engaging the Diaspora in Climate Action* (July 4, 2024).

[24] Dilip Ratha, Sonia Plaza & Eung Ju Kim, *In 2024, Remittance Flows to Low- and Middle-Income Countries Are Expected to Outpace FDI and ODA Combined*, World Bank (Jan. 23, 2024).

[25] These include mountainous countries like Tajikistan (45% of GDP) and Nepal (26%), small island states like Tonga (38%) and Samoa (26%), and Central American "dry corridor" countries of Honduras (25%) and El Salvador (24%). *Id.*

[26] These fragile and conflict-affected (FCS) countries include Comoros, Haiti, Somalia, and South Sudan. *See* Soukeyna Kane, Dilip Ratha & Michal Rutkowski, *Remittances to Countries in Fragile and Conflict-Affected Settings Bounce Back in 2022*, World Bank Blogs (Dec. 13, 2022).

[27] Many FCS countries cannot access traditional climate finance due to perceived risks, leaving climate impacts unaddressed. This can exacerbate vulnerability, instability, and conflict, contributing to forced displacement. *See* UN High Comm'r for Refugees (UNHCR), No Escape: On the Frontlines of Climate Change, Conflict and Forced Displacement (Nov. 2024).

[28] For an in-depth initial look at the role of diaspora funds in financing climate resilience in sub-Saharan Africa, see Int'l Fund for Agricultural Dev. & UN Convention to Combat Desertification, Migrant Remittances and Diaspora Finance for Climate Resilience (Oct. 2024).

[29] Diaspora Emergency Action and Coordination (DEMAC), *Pakistan's Diaspora Steps Into Action* (Sept. 2022).

[30] Moldova's DAR3+1 program uses government funds to match diaspora investments for social and environmental impact projects. *See* Kane, Ratha & Rutkowski, *supra* note 26. Under Mexico's 3x1 program (2002–2019), government at the federal, state, and local levels matched pooled remittance investments in community welfare and social infrastructure projects. *See* Rodolfo García Zamora & Selene Gaspar Olvera, *Remittances and Development in Mexico 2000–2022*, *in* Moving Up the Economic Ladder: 20 Years of Financial Inclusion of the Mexican Migrant Community in the U.S., 57 (Carlos Serrano Herrera & Rafael Fernández de Castro eds., 2024).

[31] SNV Netherlands Development Organisation, *GrEEn – Boosting Green Employment and Enterprise Opportunities in Ghana.*

https://doi.org/10.1017/aju.2025.10001 Published online by Cambridge University Press

*Conclusion*

Meeting the moment to address the ways climate change drives and shapes human mobility requires a comprehensive, whole-of-society effort. This holds true not only for the policies and programs addressing those impacts, but also for the financing approaches necessary to get there. The impact of limited foreign assistance requires leveraging a range of actors as investors and stakeholders in actions to address climate mobility—be they from the private sector, diaspora, non-profit and philanthropic institutions, or impacted individuals and communities themselves.

The approaches put forth in this essay—debt swaps, blended finance, and diaspora investments—can expand the pool of available financing to address climate mobility beyond foreign assistance and sovereign debt. They have the added potential to drive inclusive economic growth and development and enhance responsiveness to local realities. Adopting these and other innovative approaches will help countries and communities impacted by climate mobility find stability, build resilience, and thrive in a changing world.

https://doi.org/10.1017/aju.2025.10001 Published online by Cambridge University Press