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RETHINKING YEMEN'S ECONOMY

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UNLOCKING CLIMATE FINANCE FOR FRAGILE STATES: THE CASE OF YEMEN

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EXECUTIVE SUMMARY

Yemen is vulnerable to climate change and affected by ongoing conflict, facing worsening environmental crises such as water scarcity, degradation of arable land, and an increasing frequency of extreme weather events. The country's capacity to address the impact of climate change is severely hampered by limited access to international climate finance. Obstacles include the absence of clear criteria for fund distribution, bureaucratic complexities that exceed local institutional capacity, an emphasis on mitigation over adaptation measures, and a preference for providing loans over grants. Fragmented governance and a decade-long climate data gap further undermine the country's eligibility for funding. Yemen lacks accredited national institutions capable of directly accessing climate funds, which forces it to rely on international non-governmental organizations (INGOs). This reliance introduces additional layers of bureaucracy and high transaction costs.

This policy brief, based on a desk review and a two-day workshop held in Amman, Jordan, in November 2024, examines Yemen's climate finance barriers and explores opportunities for improving its access to climate finance. The paper highlights funding allocation disparities, in which climate-vulnerable and fragile states receive disproportionately low shares of climate finance. For instance, Yemen received a mere US$0.60 per capita in adaptation finance between 2015 and 2021, compared to over US$100 per capita in stable countries during the same period.[1]

The paper draws lessons from other countries, including Rwanda, Somalia, and Bangladesh, which improved access by utilizing national climate funds, engaging in diplomatic advocacy, and implementing community-based data initiatives. Recommendations emphasize urgent actions for Yemen's government, including establishing a multi-stakeholder climate task force and climate fund, finalizing Nationally Determined Contributions (NDCs), and enhancing regional cooperation. For international actors, reforms such as simplifying accreditation processes, prioritizing grants, and supporting climate diplomacy are critical.

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INTRODUCTION

Climate change represents one of the most significant challenges affecting vulnerable, conflict-affected countries. The impact of climate change adds a layer of fragility to countries already struggling with chronic conflict and economic instability, further undermining their ability to cope. Climate change disrupts vital sectors such as water management and agriculture through rising temperatures, prolonged droughts, erratic rainfall, and extreme weather events like floods and cyclones. Global temperatures have risen 1°C[2] since the pre-industrial era. While this increase may seem small, its effects are already proving devastating in many countries, including Yemen.[3]

Yemen is already experiencing severe water scarcity, as groundwater levels decline by 3-8 meters annually. Arable land is shrinking by 3-5 percent each year,[4] while extreme weather events are increasing. Widespread health crises, loss of life, and displacement across Yemen highlight the urgent need for access to climate finance aimed at supporting climate change mitigation and adaptation efforts.

The global response to climate change has led to multiple agreements under the United Nations Framework Convention on Climate Change (UNFCCC). These are built on two main pillars: mitigation and adaptation. These efforts are largely supported by finance, technology, and capacity-building.[5] In the Sharm el-Sheikh Pact, the Loss and Damage Fund was introduced as a third pillar.[6] Efforts have been made to support developing economies through different climate finance mechanisms, including multilateral funds, bilateral arrangements, and private sector investments. A 2009 funding target under the Copenhagen Agreement to provide developing countries with US$100 billion annually[7] was not reached until 2022, when developed nations donated US$116 billion.[8] Access to funding is challenging due to the absence of criteria governing the distribution of funds, bureaucratic requirements that exceed the institutional capacity of developing countries, particularly fragile states, and financial mechanisms that favor loans over grants.[9]

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[1] Abeer S. Ahmad, "Closing climate security gaps requires more reliable data on climate finance," Stockholm International Peace Research Institute, February 12, 2025, https://www.sipri.org/commentary/blog/2025/closing-climate-security-gaps-requires-more-reliable-data-climate-finance. Accessed March 10, 2025.

[2] "Climate Change and Global Temperature," Climate.gov, January 18, 2024, https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature. Accessed March 10, 2025.

[3] Temperatures are expected to reach 1.69°C above pre-industrial levels by 2050. See: "Yemen Country Climate and Development Report [AR]," World Bank, November 20, 2024, https://www.albankaldawli.org/ar/country/yemen/publication/yemen-country-climate-and-development-report. Accessed March 11, 2025.

[4] "Climate Change Impacts on Yemen and Adaptation Strategies," PreventionWeb, July, 2023, https://www.preventionweb.net/publication/climate-change-impacts-yemen-and-adaptation-strategies. Accessed March 13, 2025.

[5] "The Paris Agreement," UN Climate Change, n.d., https://unfccc.int/process-and-meetings/the-paris-agreement. Accessed April 11, 2025.

[6] "The Third Pillar of International Climate Change Policy: On 'Loss and Damage' after the Paris Agreement," Morten Broberg and Martinez Romera, (Eds.). Routledge, 2021. https://doi.org/10.4324/9781003132271. Accessed April 15, 2025.

[7] "Climate Finance and the USD 100 Billion Goal," OECD, May 27, 2024, https://www.oecd.org/en/topics/climate-finance-and-the-usd-100-billion-goal.html. Accessed March 11, 2025.

[8] Natalia Alayza and Gaia Larsen, "How to Reach $300 Billion — and the Full $1.3 Trillion — Under the New Climate Finance Goal," World Resources Institute, February 20, 2025, https://www.wri.org/insights/ncqg-climate-finance-goals-explained. Accessed April 09, 2025.

[9] Irene Casado Sanchez and Jackie Botts, "A Program Meant to Help Developing Nations Fight Climate Change is Funneling Billions of Dollars Back to Rich Countries," May 22, 2024, https://www.reuters.com/investigates/special-report/climate-change-loans/. Accessed March 14, 2025.

Like many Least Developed Countries (LDCs), Yemen faces bureaucratic challenges in navigating climate finance mechanisms. Conflict exacerbates the situation as the country's instability, weak governance, and low human and institutional capacity pose major obstacles. An even more pressing issue is the absence of accredited national institutions or banks that can directly access climate funds. As a result, Yemen is largely dependent on international NGOs, adding additional layers of bureaucracy and high transaction costs. According to the Yemen Climate Finance Country Program,[10] between 2018 and 2022, Yemen was only able to secure five projects through bilateral/public climate finance, which, even together, do not come close to addressing the situation. The same challenges hinder Yemen's access to multilateral funds, such as the Green Climate Fund (GCF), the largest under the UNFCCC. The application process remains beyond the country's technical capacity, and the approval process is lengthy and complex.

Against this backdrop, this policy brief aims to examine climate finance barriers and explore potential opportunities with a focus on Yemen. It is based on a desk review and the findings of a two-day workshop on Climate Finance in Yemen, held from November 25-26, 2024, in Amman, Jordan.[11] It draws insights from other fragile countries that have improved their access to climate financing, providing practical recommendations tailored to the Yemeni context. This focus is particularly relevant in light of the New Collective Quantified Goal (NCQG) announced at COP29, which sets a climate finance target of US$300 billion annually by 2030.[12] Given the worsening impact of climate change, Yemen requires substantial financial support. This funding is crucial not only as an environmental imperative but also as a fundamental component of the country's path toward stability, recovery, sustainability, and development, especially as other financial sources, such as development and humanitarian aid, continue to shrink.

[10] "Yemen Country Programme," Green Climate Fund, October 22, 2024, https://www.greenclimate.fund/sites/default/files/document/yemen-country-programme.pdf. Accessed March 10, 2025.

[11] Part of the Rethinking Yemen's Economy (RYE) initiative, the two-day workshop focused on Yemen's difficulties in accessing climate funds and explored ways to improve the country's ability to manage and benefit from climate funding. The event brought together government officials, business leaders, representatives of civil society organizations, climate finance experts, and international donors. For more information see: "Climate finance in Yemen: Tackling Urgent Challenges," Rethinking Yemen's Economy, December 5, 2024, https://devchampions.org/press-releases/22/. Accessed March 10, 2025.

[12] Carl J. Fleming and Shah Jahan H. Khandokar, "Baku Breakthrough? COP29 Sets a $300 Billion Goal as Part of a $1.3 Trillion Climate Finance Ambition," McDermott Will & Emery, November 26, 2024, https://www.mwe.com/insights/bakubreakthrough-cop29-sets-a-300-billion-goal-as-part-of-a-1-3-trillion-climate-finance-ambition/. Accessed April 03, 2025.

GLOBAL CLIMATE FINANCE AND LDCS

From Pledges to Debt Traps

Despite the increase in climate finance over the years, climate interventions face multiple challenges regarding their quality and effectiveness. These challenges hinder their ability to help countries reduce emissions and prepare for, prevent, recover from, and adapt to the impact of climate change. The tendency to use loans or concessional loan instruments for climate finance is one of the primary obstacles. From 2016 to 2020, more than two-thirds of climate finance was provided in the form of loans, while less than one-third was allocated as grants.[13] For highly-indebted low-income countries, the share of loans as a percentage of climate finance commitments rose from 2 to 30 percent between 2013 and 2020.[14] This trend places an additional burden on lower-middle and low-income economies and imposes what has been referred to as "climate finance colonization" by countries of the Global North, which were primarily responsible for historical industrial emissions.[15]

The preference for returnable finance (i.e., loans and other debt instruments) is reflected in the prioritization of mitigation projects compared to adaptation projects, an approach that benefits stable countries. In 2022, low and middle-income economies received no more than 37 percent[16] of total funding for climate change adaptation. Although the majority of funds are allocated to mitigation, fragile countries receive only around 15 percent[17] of mitigation finance due to the clear preference for stable environments to receive these funds. This imbalance between adaptation and mitigation has added another challenge for LDCs. Between 2018 and 2022, Yemen was only able to secure funding for one mitigation project according to the Yemen Climate Change Country Program.[18]

[13] Beata Cichocka and Ian Mitchell, "Climate Finance Effectiveness: Six Challenging Trends," Center for Global Development, December 2022, https://www.cgdev.org/sites/default/files/climate-finance-effectiveness-six-challenging-trends.pdf. Accessed April 11, 2025.

[14] Ibid.

[15] Emily Ghosh, Zoha Shawoo, and Anisha Nazareth, "Decolonial climate finance in practice: assessing proposed reforms," Stockholm Environment Institute, January 16, 2025, https://doi.org/10.51414/sei2025.003. Accessed March 19, 2025.

[16] "Multilateral Development Banks Provide Record Climate Finance of Close to USD 61 Billion for Low and Middle-Income Economies in 2022," New Development Bank, October 13, 2023, https://www.ndb.int/news/multilateral-development-banks-provide-record-climate-finance-of-close-to-usd-61-billion-for-low-and-middle-income-economies-in-2022/. Accessed April 04, 2025.

[17] Beata Cichocka and Ian Mitchell, "Climate Finance Effectiveness: Six Challenging Trends," Center for Global Development, December 2022, https://www.cgdev.org/sites/default/files/climate-finance-effectiveness-six-challenging-trends.pdf. Accessed April 11, 2025.

[18] "Yemen Country Programme," Green Climate Fund, October 22, 2024, https://www.greenclimate.fund/sites/default/files/document/yemen-country-programme.pdf. Accessed March 10, 2025.

Bureaucratic Gridlock and Climate Finance Inequity

Accessing climate funds is not straightforward; the approvals process and fund distribution face significant delays due to bureaucratic obstacles.[19] For example, with GCF, while the average approval timeline is around two years, the pre-approval preparation phase alone can take up to six months, especially for countries with limited technical capacity. Typically, projects from LDCs undergo five to seven rounds of review by the GCF Secretariat or the Independent Technical Advisory Panel. Even after approval, multiple conditions must be met, including legal and fiduciary agreements. Additionally, adaptation approval can be challenging due to requirements linked to baseline data and vulnerability studies that are often beyond the capacity of LDCs.

These can delay implementation significantly. For instance, Malawi's climate project (FPOO2) was approved in 2015, yet by 2021, only 59 percent of the allocated funds had been disbursed. An assessment of GCF in 2021 reveals that approvals for LDCs take longer than for other countries—often exceeding 21 months. Despite their urgent needs, LDCs received only 29 percent of total GCF financing, which amounts to US$8.8 billion.[20] Although the timelines in the GCF's new strategy (2024–2027)[21] have been shortened, the long procedural approach still prevails.

Under the UNFCCC, some global finance mechanisms are meant to prioritize climate-vulnerable countries, such as the GCF, LDC Fund (LDCF), and Global Environment Facility (GEF). The LDCF, having dispersed US$1.65 billion over 20 years, focuses solely on LDC adaptation projects, operating with equitable access principles and funding caps of US$20 million per replenishment period (every four years) and a cumulative cap of US$60 million per country. While broader in scope, the GEF prioritizes LDCs with minimum allocations of US$2 million, compared to US$1 million for other countries,[22] but only 30 percent of its funds go to LDCs. Furthermore, the small group of climate funds prioritizing LDCs represents only a fraction of climate finance, most of which goes to countries less affected by climate change.[23] This highlights the unequal access to climate finance, representing an average of US$2.04 per capita across all LDCs.[24] Conflict-affected countries receive a much smaller share. Yemen received only US$0.60 per capita in adaptation finance between 2015 and 2021, compared to over US$100

[19] Komna Djabare, Kouassigan Tovivo, and Koffi Koumassi, "Five Years of the Green Climate Fund: How Much Has Flowed to Least Developed Countries?," Climate Analytics, November 2, 2021, https://climateanalytics.org/publications/five-years-of-the-green-climate-fund-how-much-has-flowed-to-least-developed-countries. Accessed March 12, 2025.

[20] Ibid.

[21] "Strategic Plan for the Green Climate Fund 2024–2027," Green Climate Fund, n.d., https://www.greenclimate.fund/sites/default/files/document/strategic-plan-gcf-2024-2027.pdf. Accessed March 19, 2025.

[22] "Climate change: LDC Fund and Other Mechanisms," UN, n.d., https://www.un.org/ldcportal/content/climate-change. Accessed April 09, 2025.

[23] "Annual finance for climate action surpasses USD 1 trillion, but far from levels needed to avoid devastating future losses," Climate Policy Initiative, November 2, 2023, https://www.climatepolicyinitiative.org/press-release/annual-finance-for-climate-action-surpasses-usd-1-trillion-but-far-from-levels-needed-to-avoid-devastating-future-losses/. Accessed May 28, 2025.

[24] Komna Djabare, Kouassigan Tovivo, and Koffi Koumassi, "Five Years of the Green Climate Fund: How Much Has Flowed to Least Developed Countries?" Climate Analytics, November 2, 2021, https://climateanalytics.org/publications/five-years-of-the-green-climate-fund-how-much-has-flowed-to-least-developed-countries. Accessed March 12, 2025.

per capita in non-conflict-affected countries.[25] Over the past ten years, Yemen has received only US$3.5 million in total from multilateral climate funds despite its high vulnerability and pressing needs.[26]

Accreditation Barriers

Accreditation and direct access[27] funding channeled to national institutions and entities involves a complex process that requires meeting strict technical and financial management standards, often exceeding the capacity of many developing countries, especially fragile ones. Only 25 percent of accredited institutions under the GCF are from LDCs.[28] Although the accreditation process in Yemen was initiated last year, the government has not yet accredited any national entities under the climate fund. Obtaining credentials for Direct Access Entities (DAEs) is one of the three objectives of Yemen's Climate Finance Country Program, but there has been limited progress toward this goal: The Environmental Protection Authority (EPA) has assessed the management capacity of national stakeholders, and CAC Bank was pre-selected to undergo capacity-building with GCF funding.[29] The bank is currently in the process of filling its capacity gaps to meet financial management and policy requirements, aiming to apply for GCF accreditation by 2026.

By 2020, only 7 percent[30] of overall climate finance was channeled through national budgets, with the majority being distributed through project-based funding managed by international intermediaries such as the World Bank and UN agencies. This approach weakens country ownership and bypasses national policies. Many of these projects are implemented without full coordination with the relevant authorities and based on strategies that may be in the interests of the donor or the implementing parties but out of sync with national strategies, affecting the projects' operation and sustainability. Donors justify this approach by citing weak institutional capacity in reporting, fund management, and implementation, as well as concerns about corruption and lack of trust, issues that are more pronounced in fragile and conflict-affected states like Yemen.

[25] Abeer S. Ahmad, "Closing climate security gaps requires more reliable data on climate finance," Stockholm International Peace Research Institute, February 12, 2025, https://www.sipri.org/commentary/blog/2025/closing-climate-security-gaps-requires-more-reliable-data-climate-finance. Accessed March 10, 2025.

[26] Figure cited by Abdulwahed Arman, Head of the Climate Change Unit in Yemen, at the November 25-26, 2024, Rethinking Yemen's Economy climate finance workshop in Amman, Jordan.

[27] "GCF in Brief: Direct Access," Green Climate Fund, December 1, 2021, https://www.greenclimate.fund/document/gcf-brief-direct-access. Accessed March 24, 2025.

[28] Komna Djabare, Kouassigan Tovivo, and Koffi Koumassi, "Five Years of the Green Climate Fund: How Much Has Flowed to Least Developed Countries?," Climate Analytics, November 2, 2021, https://climateanalytics.org/publications/five-years-of-the-green-climate-fund-how-much-has-flowed-to-least-developed-countries. Accessed May 28, 2025.

[29] According to the Climate Change Unit team at the November 25-26, 2024, Rethinking Yemen's Economy climate finance workshop in Amman, Jordan.

[30] Beata Cichocka and Ian Mitchell, "Climate Finance Effectiveness: Six Challenging Trends," Center for Global Development, December 2022, https://www.cgdev.org/sites/default/files/climate-finance-effectiveness-six-challenging-trends.pdf. Accessed March 24, 2025.

CHALLENGES AND OPPORTUNITIES TO ENHANCE CLIMATE FINANCE IN YEMEN

Conflict Risk Associated with Climate Finance

The ongoing conflict in Yemen presents significant obstacles to accessing the already complex global climate finance system and related procedures, strategies, planning, and action. As a high-risk country, Yemen has seen a decline in donors' willingness to support development and climate-related projects.[31] Moreover, much public multilateral climate funding is offered in the form of loans, which are more difficult for fragile countries like Yemen to obtain and pay off, thus limiting Yemen's ability to benefit from these resources. Like many fragile countries, Yemen has a poor credit rating and lacks reliable institutions to manage debt. As a result, it is often ineligible for concessional loans or subject to unfavorable terms. Reforming the global climate finance architecture to better accommodate fragile and conflict-affected states should be a priority for advocacy efforts.

Bridging Data Gaps and Enhancing Climate Finance Access Through Regional/Global Cooperation

Obtaining climate change data represents a major challenge in Yemen. Over a decade of conflict has fragmented state authority, dividing Sana'a—home to the country's primary climate monitoring infrastructure—from the internationally recognized government, now based in Aden. This fragmentation has significantly disrupted data collection efforts, which are further hampered by weak coordination between the authorities and the continued reliance on manual data archiving. As a result, Yemen faces a 10-year gap in climate data—one of the largest among developing countries—making it difficult to meet eligibility criteria for climate finance, such as those set by the GCF, which requires robust, evidence-based justifications in funding proposals.[32]

Yemen has developed an action plan[33] to navigate climate finance, including projects to strengthen climate data collection and early warning systems. However, this is only a partial solution to the larger issue of addressing the data gap. It is therefore critical to build capacity by establishing a management information system (MIS). Strengthening regional cooperation with initiatives like the Arab Center for the

[31] According to participants at the November 25-26, 2024, Rethinking Yemen's Economy climate finance workshop in Amman, Jordan.

[32] Pia Treichel, Michai Robertson, Emily Wilkinson, and Jack Corbett, "Scale and access to the Green Climate Fund: Big Challenges for Small Island Developing States," Global Environmental Change, Volume 89, December 2024, https://doi.org/10.1016/j.gloenvcha.2024.102943. Accessed March 24, 2025.

[33] "Action Plan for Yemen's Climate Finance Country Program 2025-30," Climate Change Unit, Ministry of Water and Environment, February 2025, unpublished document.

Studies of Arid Zones and Dry Lands (ACSAD)[34] and the Regional Centre for Mapping of Resources for Development (RCMRD)[35] is crucial, as they could assist in providing climate data and expertise as part of their research efforts in the region.

Regional cooperation could improve the development of proposals in partnerships between countries facing similar climate vulnerabilities. This approach would help mobilize more funds, given the tendency of multilateral development banks (MDBs) to fund groups of countries rather than country-based projects. To maximize the cumulative expertise available within contexts similar to Yemen, it is essential to leverage the knowledge of the LDC Expert Group (LEG).[36] Additionally, collaborating with the International Institute for Environment and Development (IIED), which specializes in conducting comprehensive research on community-based adaptation and providing support to LDCs, will greatly enhance climate data efforts.

In a positive step, Yemen recently joined a coalition of 12 fragile countries established during COP29,[37] aimed at amplifying the voices of the world's most vulnerable nations and improving their influence in bilateral climate negotiations and funding processes. Recent studies[38] show that the allocation of climate finance funding differs from that of traditional development aid, typically involving a wide array of a donor country's ministries and programs. Efforts to strengthen bilateral relationships through embassies and diplomatic missions could be crucial in mobilizing additional climate finance for Yemen.

Governance, Coordination, and National Climate Policies and Strategies

Weak environmental and climate change strategies, coupled with poor coordination among national institutions, further complicate access to climate funds. Recognition of this problem is not new. A National Climate Change Committee (NCCC) was launched in 2009 with the responsibility to oversee the Climate Change Coordination Mechanism (CCCM). It consists of three components: the high ministerial committee, the technical committee, and the sub-technical committees, specializing in climate change adaptation and mitigation issues. Due to the war, the committee has been ineffective. Reactivating the National Climate Change Committee (NCCC) and Climate Change Coordination Mechanism (CCCM) is essential for addressing current

[34] "About the Center," Arab Center for Studies of Dry Areas and Arid Lands (ACSAD), n.d., https://acsad.org/en/لمحة-عن-المركز/. Accessed April 02, 2025.

[35] "Homepage," Regional Centre for Mapping of Resources for Development (RCMRD), n.d., https://rcmrd.org/en/. Accessed April 02, 2025.

[36] "Least Developed Countries Expert Group," United Nations Climate Change, n.d., https://unfccc.int/LEG. Accessed March 19, 2025.

[37] Chloé Farand, "'Forgotten' Fragile States Unite to End Climate-Finance Blind Spot," Climate Home News, March 18, 2025, https://www.climatechangenews.com/2025/03/18/forgotten-fragile-states-unite-to-end-climate-finance-blind-spot/. Accessed March 19, 2025.

[38] Lauri Peterson and Jakob Skovgaard, "Bureaucratic Politics and the Allocation of Climate Finance," World Development, Volume 117, May 2019, https://doi.org/10.1016/j.worlddev.2018.12.011. Accessed April 03, 2025.

coordination gaps and facilitating government decision-making. Over the past 20 years, national policies have not been integrated or implemented. While other countries are already processing their Nationally Determined Contributions (NDCs) under the Paris Agreement for a second time, Yemen's NDCs is still under development, with the potential for submission next year.[39] Developing an adaptation plan is also crucial for improving access to adaptation funds. In a recent positive development, the first adaptation project, aimed at improving water management in the Tuban Delta (in Aden and Lahj governorates), has been approved.[40] Nonetheless, further efforts are necessary to address Yemen's escalating needs.

Demonstrating a strengthened commitment to climate governance, Yemen's Ministry of Water and Environment and EPA established a Climate Change Unit in 2024[41] and appointed a dedicated GCF officer to enhance capacity and facilitate access to funds. Bilateral funding from the Netherlands has been secured to strengthen the capacity of the Climate Change Unit (CCU).[42] However, this funding must be utilized effectively to achieve meaningful improvements, particularly in navigating and complying with funding requirements, including reporting and evaluation. The CCU and EPA developed a Climate Change Country Action Plan following multiple workshops focused on identifying priorities for mitigation and adaptation.[43] The plan outlines eight urgent projects for implementation between 2025 and 2030, with a proposed budget of US$330 million, aimed at increasing access to GCF, building institutional capacity, and developing effective policies.[44]

This action plan represents an important step toward navigating climate finance; however, it will require substantial effort to implement effectively. This includes developing professional project proposals, building institutional and technical capacities, and enhancing diplomatic efforts to facilitate access and approval of funding.

Building climate diplomacy capacity is essential for Yemen. Climate priorities should be recognized as a core national interest and aligned with global climate policies and the peace-building agenda. The Ministry of Foreign Affairs can play a vital role in articulating Yemen's evolving mitigation and adaptation needs in international forums and dialogues. Appointing a dedicated climate envoy, supported by the foreign ministry, would enhance Yemen's visibility and strategic engagement in global climate negotiations. Such a position could also help strengthen institutional coordination

[39] "Yemen," NDC Partnership, n.d., https://ndcpartnership.org/country/yem. Accessed April 09, 2025.

[40] "Increase the Climate Change Resilience to Water Scarcity and Flooding in the Tuban Delta," Adaptation Fund, n.d., https://www.adaptation-fund.org/project/increase-the-climate-change-resilience-to-water-scarcity-and-sea-level-rise-related-challenges-in-the-tuban-delta/. Accessed April 09, 2025.

[41] Although the Climate Change Unit was officially established on June 13, 2024, under Ministerial Decision No. 10, it was already operating within the EPA framework prior to this decision.

[42] According to representatives of the Climate Change Unit and the Embassy of the Netherlands to Yemen at the November 25-26, 2024, Rethinking Yemen's Economy climate finance workshop in Amman, Jordan.

[43] "Action Plan for Yemen's Climate Finance Country Program 2025-30," Climate Change Unit, Ministry of Water and Environment, February 2025, unpublished document.

[44] According to representatives of the Climate Change Unit at the November 25-26, 2024, Rethinking Yemen's Economy climate finance workshop in Amman, Jordan.

across ministries. Training diplomats and negotiators is critical for effective climate diplomacy.[45]

Another major challenge lies in empowering the national technology sector to meet the country's adaptation and mitigation needs. As highlighted in the Technology Needs Assessment (TNA) report,[46] vital sectors such as water, energy, and agriculture urgently require technological interventions. For instance, technologies like seawater desalination and rainwater harvesting are crucial to addressing water insecurity. At the same time, clean energy solutions and agricultural practices such as drip irrigation and soil conservation play a central role in improving resilience and preserving livelihoods.

The line between adaptation and mitigation has become increasingly blurred in Yemen, posing a challenge under rigid climate finance structures that often require projects to fit neatly into one of these categories. However, this overlap also presents a significant opportunity to promote integrated, development-oriented climate solutions that address multiple vulnerabilities simultaneously. For example, the acute need for energy, driven by infrastructure deterioration and weak access to fossil fuels, makes clean energy not only a mitigation tool (reducing emissions by replacing fossil fuels) but also essential for adaptation (ensuring critical services like water and energy access and agricultural productivity). This dual impact strengthens the case for cross-cutting proposals that deliver measurable emission reductions while advancing development co-benefits—an approach increasingly favored by the GCF's cross-cutting project window and blended finance instruments supported by bilateral partners. The TNA emphasizes that securing the necessary technologies requires access to climate finance, particularly through innovative mechanisms such as blended finance, which combines public and private resources. Achieving this will demand well-crafted proposals, strong institutional coordination, and dedicated efforts.

[45] Bubu Pateh Jallow and Brianna Craft, "Engaging Effectively in Climate Diplomacy: Policy Pointers from the Gambia," International Institute for Environment and Development, 2014, https://www.jstor.org/stable/resrep01588?seq=1. Accessed April 09, 2025.

[46] "Yemen: Technology Needs Assessment Report, Adaptation & Mitigation," UNEP-CCC, UN Environment and UCT, November 2022, https://unfccc.int/ttclear/TNA/YEM-TNA-TNA_2022.pdf. Accessed March 25, 2025.

LESSONS LEARNT FROM OTHER COUNTRIES

Although LDCs struggle to access climate finance, there are successful experiences within this bloc. One notable example is the Rwandan government's establishment of the Rwanda Green Fund (FONERWA) as a national investment fund. This fund mobilizes resources from international partners, the government, and the private sector. Through cooperation with the Rwanda Development Bank, it is implementing a pioneering investment facility called Ireme Invest,[47] which seeks to encourage green investments. In 2023, it successfully mobilized €300 million[48] for climate resilience initiatives in collaboration with the European Investment Bank (EIB) and the International Finance Corporation (IFC).

Other national climate funds, like those of Brazil, Ethiopia, and Indonesia,[49] work on developing institutional policies to attract more donors. This includes strengthening the fiduciary system and ensuring transparency. Building a strong track record of impact through effective reporting and visibility also helps build donor trust.

In Nepal and Bangladesh, community-based monitoring of climate data has been implemented using mobile applications and text messaging after training local farmers.[50] This simple initiative assists data collection and adaptation strategies. Additionally, affordable technologies like drones are used for local data collection, along with remote sensors on satellites. Malawi has collaborated with international partners[51] to analyze satellite data and monitor crops, leading to better food security policies.

In fragile contexts such as Somalia, there are also valuable lessons to be learned. Despite its challenges, Somalia has increased its access to climate finance. The GCF approved US$94 million[52] in funding for Mogadishu, reflecting multiple strategic steps taken by the country. These include a strong political will to prioritize climate action and adaptation, integrating climate efforts with national socioeconomic development plans to attract donors, and active participation in global initiatives such as the UK

[47] For more information, see the Ireme Invest website: https://iremeinvest.rw/. Accessed April 08, 2025.

[48] "Rwanda and Partners Pioneer New Financing to Crowd in Private Investment for Climate Resilience," Press Release, International Finance Corporation (IFC), June 22, 2023, https://www.ifc.org/en/pressroom/2023/rwanda-and-partners-pioneer-new-financing-to-crowd-in-private-investment-for-climate-resilience. Accessed April 08, 2025.

[49] Rishikesh Ram Bhandary, "The Role of Institutional Design in Mobilizing Climate Finance: Empirical Evidence from Bangladesh, Brazil, Ethiopia, and Indonesia," PLOS Climate 3, no. 3, March 19, 2024, https://doi.org/10.1371/journal.pclm.0000246. Accessed April 11, 2025.

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[52] "Somalia," Green Climate Fund, n.d., https://www.greenclimate.fund/countries/somalia. Accessed March 12, 2025.

Taskforce on Access to Climate Finance.[53] In this initiative, pioneer countries work closely with development partners, donor countries, and climate finance institutions to identify barriers to accessing climate finance, test solutions, and develop replicable climate finance models.

Additionally, Somalia has effectively advocated in international forums and participated in COP summits to enhance its image.[54] A similar approach has been taken by Bhutan, which actively engages in international forums. Bhutan is one of the 11 founding countries of the Climate Vulnerable Forum (CVF) and the G-Zero Forum, both of which amplify the collective voice of vulnerable countries in climate negotiations.[55]

As traditional climate finance mechanisms are often unfavorable for fragile countries like Yemen, issuing SDG or green bonds could be a potential alternative, inspired by experiences such as Benin's. Benin successfully issued the first international SDG bond in Africa on July 15, 2021, raising US$500 million to support sustainable development and green projects.[56] Although Yemen's low credit rating may deter investors, a blended finance approach, combining concessional finance from international donors, could help attract private sector investment.

[53] Hannah Binci, "The Taskforce on Access to Climate Finance," UK FCDO Power Point presentation, n.d., https://unfccc.int/sites/default/files/resource/FCDO%20UK%20-%20Hannah%20Binci.pdf. Accessed April 09, 2025.

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CONCLUSION

Yemen has suffered significant economic losses and damage due to the effects of climate change. Although it is among the countries most vulnerable to climate degradation, Yemen receives some of the lowest levels of climate finance. To date, the country has secured no more than US$15 million from all multilateral climate funds combined, including a recently approved project from the Adaptation Fund. This amount is very small compared to Yemen's direct and indirect climate-related losses. For instance, the losses and damages from the 2018 Cyclone Luban were estimated at US$700 million in Al-Mahra.

Accessing climate funds presents a significant challenge, particularly given Yemen's political context and institutional fragility. Yet, despite such hurdles, several similar countries have managed to secure the necessary funding. Addressing the multifaceted challenges of climate finance necessitates a dual approach. Reforming the global climate finance framework is critical to better accommodate the unique needs of fragile, climate-vulnerable, and conflict-affected states. Concurrently, Yemen must learn from the experiences of other countries and strengthen its domestic frameworks. This includes establishing a national climate fund, finalizing its Nationally Determined Contributions (NDCs), enhancing climate data collection and management, mitigating financial risks, building technical capacity, and strengthening civil society engagement. Additionally, efforts are needed to develop the capacity of national institutions and entities to become accredited for climate finance.

To achieve this, cooperation with regional and international actors and diplomatic engagement are equally important. Yemen must prioritize coordination with countries responsible for providing these funds to advocate for equitable access and tailored support. Climate finance is not only an environmental imperative but also one of the cornerstones of Yemen's stability and recovery. Integrating climate resilience into peace-building and development agendas will require sustained political will, transparent governance, and global solidarity.

RECOMMENDATIONS

For the Yemeni Government:

- Establish a Climate Task Force that comprises a diverse group of stakeholders, including government officials, NGOs, and local leaders.[57] This body will coordinate climate priorities and project design while addressing institutional fragmentation. It could include the establishment of a national climate fund, with a clear mandate, robust governance structure, and appropriate fiduciary standards to serve as the primary national mechanism for climate finance coordination. The task force can attract donors and private sector investment to improve co-financing, increase opportunities for funding access, and foster cooperation with civil society and academic researchers to ensure that local needs are met.
- Expedite ratification of the 2015 Paris Agreement to facilitate access to climate finance mechanisms linked to the agreement (e.g., GCF and Adaptation Fund pipelines) and strengthen Yemen's position in international climate negotiations.
- Advocate for recovery and climate resilience as a pillar of peace talks to unlock funding. Work on climate finance diplomacy and engagement with international networks to share experiences, access resources, and gain visibility for climate finance and initiatives.
- Enhance Yemen's visibility in COP summits, UNFCCC negotiations, and international forums. Join global networks that amplify the voices of vulnerable countries. Additionally, apply to participate in global initiatives, such as the UK's Taskforce on Access to Climate Finance, which aim to foster access to climate finance and support the unique needs of vulnerable nations.
- Invest in building the capacity of the Climate Change Unit (CCU) and relevant ministries to improve access to climate finance mechanisms, increase transparency in financing, and enhance capacity in reporting and monitoring projects to build donor trust.
- Strengthen civil society engagement and work to develop the capacity of national institutions and entities to be accredited for climate finance funds. Build their capacities and empower them to play a more active role in climate finance processes, including project identification, implementation, and monitoring. Their local knowledge and community connections can enhance the effectiveness of climate finance initiatives.
- Finalize the Nationally Determined Contributions (NDC) and National Adaptation Plan (NAP), and work to integrate climate change into development and strategic

[57] The National Climate Committees could be adapted to this purpose.

plans. These plans should articulate Yemen's climate priorities, adaptation needs, and implementation pathways, serving as key tools for engaging with international climate finance providers.

- Mainstream climate change by integrating the concept into economic recovery and development plans on the national and sectoral levels.
- Map climate change donors and increase efforts to apply for funding opportunities, as climate funding is highly fragmented.
- Invest in the development and enhancement of climate data systems, including the modernization of meteorological infrastructure and institutional capacity-building, to improve climate planning and enable national stakeholders to design evidence-based policies and interventions.
- Develop a Climate Finance Tracking System to track climate-related expenditures across administrations to enhance transparency and demonstrate commitment to effective climate finance management. This system could initially be simple and refined over time as capacity increases.
- Appoint a dedicated climate envoy under the Ministry of Foreign Affairs to lead climate diplomacy efforts, ensuring strong inter-ministerial coordination, alignment of national priorities with global climate goals, and peacebuilding agendas.
- Integrate climate education and engage national media to raise awareness, build public support, and amplify Yemen's climate priorities, strengthening domestic resilience and international advocacy.

For Climate Funds and International/Regional Communities:

- Review and adapt fund accreditation requirements and project approval processes to better accommodate the realities of developing, climate-impacted, and conflict-affected countries like Yemen, through reduced bureaucratic climate finance barriers, expedited procedures, or modified fiduciary standards.
- Meet climate finance pledges, including the Loss and Damage Fund, that help address some of the fragile countries' climate finance access challenges.
- Allocate specific resources for building Yemen's climate finance readiness, including institutional capacity development, technical assistance for proposal development, and support for establishing necessary systems and processes.
- Develop regional climate finance initiatives and mechanisms that can support Yemen and other vulnerable countries in the region, through pooled funding arrangements or regional accreditation approaches.

- Scale up climate finance grants for developing countries, ensuring funding is tied to adaptation goals.
- Prioritize more effective funding approaches that promote peace, development, and humanitarian efforts in fragile countries. This includes prioritizing projects that can be implemented quickly and effectively locally, demonstrating tangible benefits and building community ownership.
- Support climate finance diplomacy and facilitate Yemen's participation in global climate forums and negotiations, ensuring its voice is heard in discussions about climate finance priorities and modalities.

For Experts and Research Centers:

- Conduct targeted research on barriers Yemen faces in accessing climate finance, generating evidence to inform policy responses and institutional reforms.
- Document and share success stories to build confidence among potential funders and demonstrate Yemen's capacity to utilize climate finance effectively.
- Develop context-specific climate finance models and approaches tailored to Yemen's unique context, drawing on experiences from other conflict-affected countries and adapting global best practices to local realities.
- Build technical capacity and develop targeted training programs for Yemeni professionals in climate finance-related fields, including proposal development, project management, and monitoring and evaluation.
- Facilitate knowledge exchange between Yemen and other LDCs that have successfully navigated climate finance challenges, creating opportunities for peer learning and transferring applicable approaches and solutions.

KEY TERMS

Accreditation Barriers: Challenges faced by national institutions to meet the technical/fiduciary standards required to directly access climate funds.

Adaptation Finance: Funding designated for projects that help communities adapt to climate impacts (e.g., water management and drought-resistant crops).

Blended Finance: Combining public, private, and concessional funds to de-risk climate investments.

Climate Adaptation: Efforts seeking to reduce people's vulnerability to the impacts of climate change that are already happening or are expected to occur, regardless of mitigation efforts (e.g., coastal defenses, early warning systems).

Climate Data Gap: Lack of reliable climate data due to conflict or institutional weaknesses, undermining funding eligibility.

Climate Finance: Financial resources mobilized to support actions aimed at addressing climate change, including efforts to reduce greenhouse gas emissions (mitigation) and to adapt to the impact of climate change (adaptation).

Climate Finance Colonization: Critique of Global North dominance over climate finance mechanisms, marginalizing vulnerable nations.

Climate Mitigation: Efforts aimed at reducing or preventing the emission of greenhouse gases (GHGs) into the atmosphere (e.g., renewable energy, sustainable transportation).

Climate-Vulnerable Countries: Nations impacted by climate change due to geographic, economic, or social fragility.

Conflict-Affected Countries: Nations destabilized by ongoing or recent armed conflict, hindering governance and development.

Direct Access Entities (DAEs): Accredited national institutions eligible to receive climate funds directly.

Fragile and Conflict-Affected States (FCS): Countries with conflict, weak governance, instability, and high vulnerability to shocks.

Green Bonds/SDG Bonds: Financial instruments to raise capital for sustainable development or climate projects.

High-Risk Country: A country deemed risky for investment due to instability, weak institutions/finance system, or conflict.

Loss and Damage Fund: A UNFCCC mechanism to address irreversible climate harms (e.g., displacement, infrastructure loss).

Mitigation Finance: Funding aimed at reducing greenhouse gas emissions (e.g., energy efficiency projects, sustainable agriculture).

Nationally Determined Contributions (NDCs): National climate action plans under the Paris Agreement.

RETHINKING YEMEN’S ECONOMY

The Rethinking Yemen’s Economy (RYE) Initiative and its associated Development Champions Forum aim to contribute to and support the advancement towards inclusive and sustainable development and peace by seeking to achieve the following: **a)** the enabled inclusive engagement of Yemenis in economic peacebuilding; **b)** an improved understanding of crucial policy areas related to economic peacebuilding and development in Yemen. The RYE initiative is implemented by DeepRoot Consulting, the Sana’a Center for Strategic Studies and CARPO. It is funded by the European Union.

For more information and previous publications: www.devchampions.org

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Implementing Partners

The project is implemented by a consortium of the following three partners:

The Sana’a Center for Strategic Studies is an independent think-tank that seeks to foster change through knowledge production with a focus on Yemen and the surrounding region. The Center’s publications and programs, offered in both Arabic and English, cover political, social, economic and security related developments, aiming to impact policy locally, regionally, and internationally.

www.sanaacenter.org

DeepRoot Consulting is a dynamic social enterprise passionate about Yemen’s development. DeepRoot aims to help international development actors, the private sector, local civil society organizations and the Yemeni Government anchor their interventions in a deep understanding of Yemen’s national and local contexts, and international best practices. Our leadership team and advisory board has decades of combined experience working in Yemen and internationally in the public, private and nonprofit sectors.

www.deeproot.consulting

CARPO is a Germany-based organization whose work is situated at the nexus of research, consultancy and exchange with a focus on implementing projects in close cooperation and partnership with stakeholders in the Middle East. The CARPO team has long-standing experience in the implementation of projects in cooperation with partners from the region and a deep understanding of the Yemeni context.

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