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# Hard Talk Adaptation: Insights for an Evolving Adaptation Landscape

Shaping innovation and  
private sector adaptation  
through development  
cooperation

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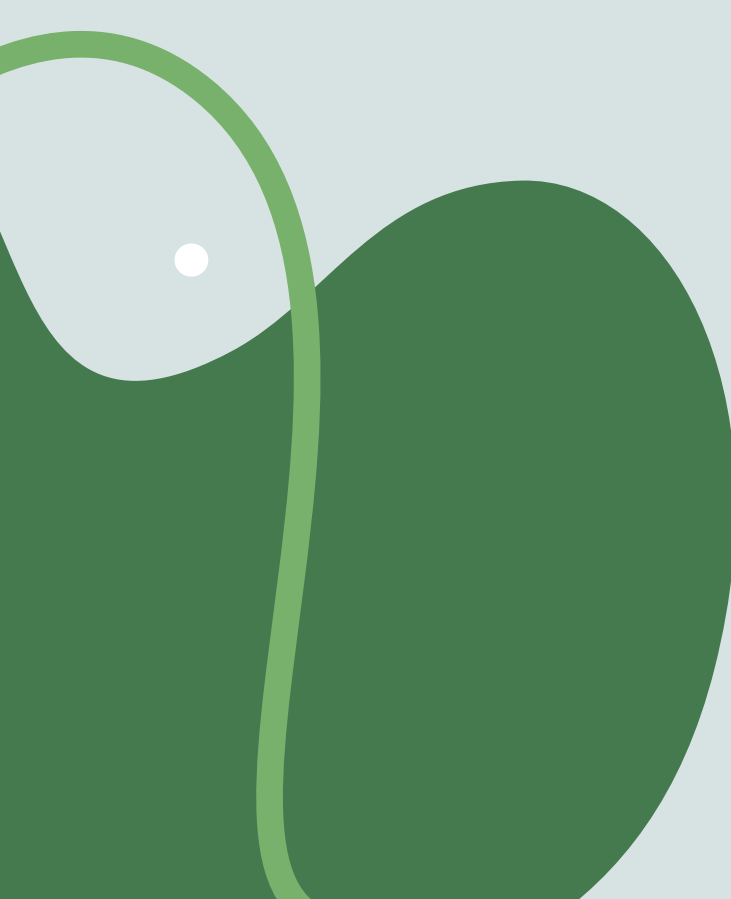
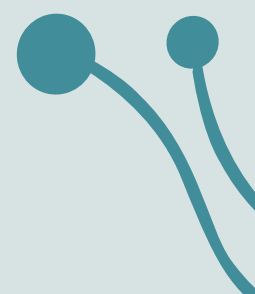
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# Key insights

- ▶ **Public resources alone cannot meet the scale of adaptation needs.** Increasing climate risks alongside a widening adaptation finance gap and tighter public budgets mean that development cooperation must find additional levers to further advance climate adaptation efforts. Engaging the private sector and strengthening innovation processes can provide such levers and pathways to scale up adaptation under fiscal constraints.
- ▶ **An adaptation economy is emerging, but it remains uneven and fragile.** A growing number of businesses and investors are focusing on goods and services aimed at managing climate risks, indicating the emergence of an adaptation economy within a broader Adaptation and Resilience sector. As this adaptation economy matures, it could become an important source of private investments in climate-adapted goods and services that enhance adaptive capacity and resilience across society. At the moment, however, investments remain concentrated in advanced economies, highlighting the need for public actors to de-risk markets and facilitate adaptation investments in developing contexts.
- ▶ **Access to usable climate risk information—and the ability to translate it into concrete adaptation measures—remains a decisive bottleneck for Micro, Small and Medium-sized Enterprises (MSMEs).**

While larger businesses increasingly integrate climate risk management into their business continuity strategies, many MSMEs lack the information, tools, and financial capacity to do so. Translating climate and weather information into sector-specific, decision-relevant insights is therefore critical for enabling smaller actors in the private sector to adapt effectively.
- ▶ **Innovation ecosystems are increasingly important in scouting, implementing, and scaling up novel adaptation measures.**

Innovation hubs, accelerator programmes, and regional platforms play an important role in connecting entrepreneurs, investors, implementation partners, and other stakeholders. Strengthening these spaces and systems, including the intermediaries that sustain them, can prove more impactful than supporting numerous pilot projects, particularly under current levels of uncertainty and shifting funding landscapes.
- ▶ **Social and technological innovation are equally critical for transformative adaptation.**

Barriers to climate adaptation are both technical and social in nature. While technological innovation can deliver the tools and systems to make adaptation more efficient, social innovation helps shape the norms and institutions underlying social behaviour. As a result, social innovation can be a decisive factor as to whether or not climate-adapted goods and services are adopted. However, innovation funding continues to heavily favour technology, leaving social innovation processes underfunded. The path towards transformative adaptation therefore requires advancing both forms of innovation jointly.
- ▶ **Matchmaking is a strategic function in a fragmented climate adaptation landscape.**

The ability to connect different adaptation actors, including public authorities, financial institutions, businesses, innovators, and civil society, becomes increasingly valuable as the adaptation landscape continues to expand. Well-designed platforms and forums that facilitate such matchmaking can create new partnerships for climate adaptation, accelerate learning across sectors, and reduce transaction costs.

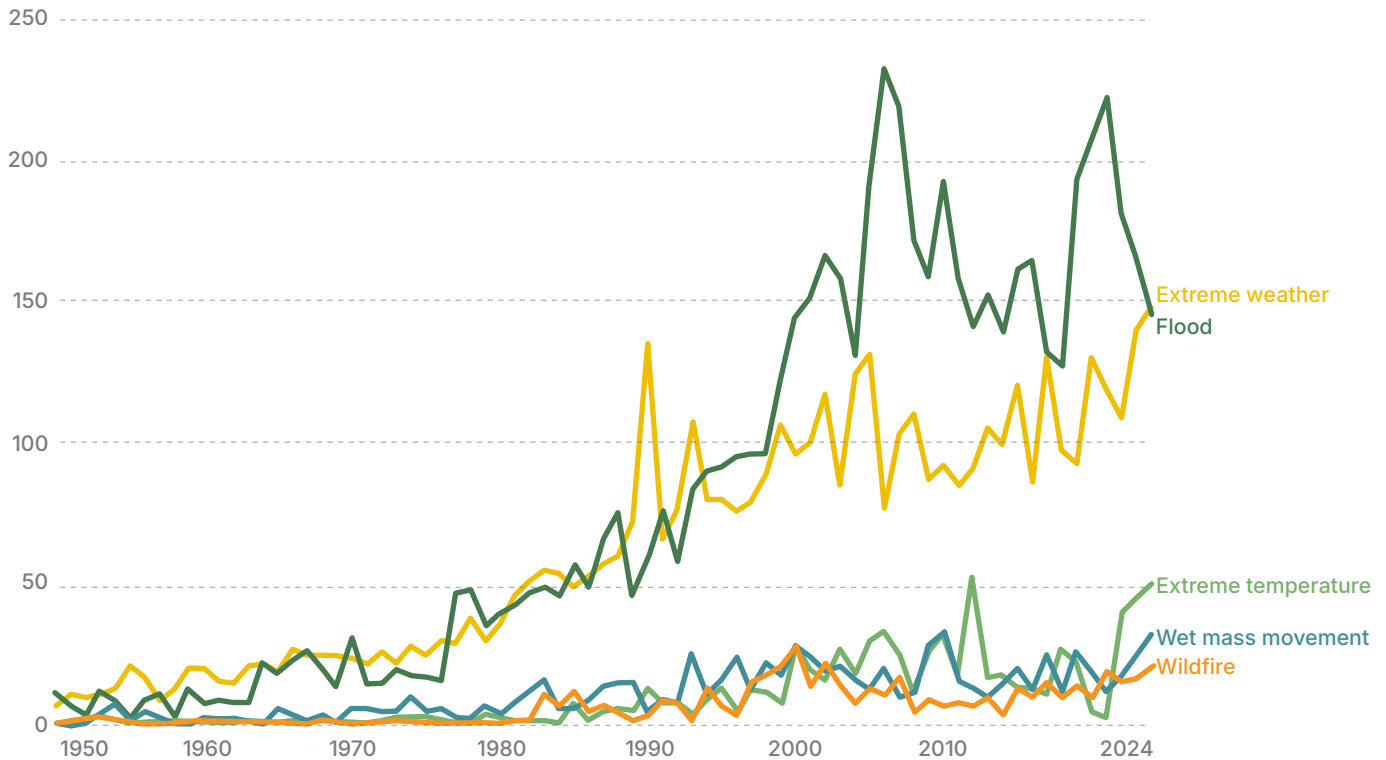
# Introduction

Climate change adaptation has become a critical element of development practice, as the increasing impacts of climate change are creating an inseparable link between climate and development policy. On the one hand, safeguarding and sustaining hard-won development gains increasingly depends on countries' capacity to adapt to climate impacts. On the other hand, progress in sustainable development itself mitigates underlying drivers of vulnerability, strengthens livelihoods, and enhances adaptive capacity. Unlike the early efforts of the Brundtland Commission and the Rio 'Earth Summit' in 1992, which sought to reconcile environmental protection with economic and social development, the interplay between development and climate adaptation is inherently more synergistic. Climate adaptation does not stand in opposition to development; rather, it is a prerequisite for sustaining it in an era of accelerating climate impacts.

In 2010, climate adaptation gained stronger international standing, as the first Adaptation Futures Conference convened and COP16 adopted the Cancun Adaptation Framework, which initiated the National Adaptation Plan (NAP) process. Since then, climate adaptation has seen considerable progress in global climate governance. The establishment of the Global Goal on Adaptation (GGA) and the increasing number of NAPs signal a shift in the political recognition of climate change adaptation. However, this progress contrasts starkly with the persistent gap in adaptation finance, which remains a challenging barrier. Available evidence suggests that meeting the adaptation finance needs of developing countries would require international adaptation funds to increase by at least 10 times compared to current levels (Neufeldt et al., 2025). This shortfall is most acute in developing countries, where adaptation investments are a critical component of protecting lives and livelihoods but fiscal space is limited.

The consequences of this finance gap are further compounded by the accelerating pace of climate change itself. Given the current emissions trajectory, the world is on a path towards approximately 2.3–2.8°C of global warming above pre-industrial levels by 2100, assuming that all Nationally Determined Contributions are fully implemented (Neufeldt et al., 2025). The planet at 2.3°C warming and beyond is not simply a hotter version of today; it involves fundamental and non-linear shifts in the Earth's systems (see Steffen et al., 2018). Such a scenario involves crossing irreversible tipping points and threatens a "safe operating space for humanity", as originally defined by Rockström et al. in 2009.

Although our collective ability to confront increasingly dire outlooks may appear saturated, it is important to cultivate a clear understanding of potential future climate trajectories as part of effective preparedness and adaptation. Recent publications such as the Global Tipping Points report series and Rahmstorf's (2024) striking description in the book chapter 'Climate and weather at 3 degrees more' continue to sound the alarm for cascading climate risks. These risks are already increasingly apparent as natural hazards rise in both frequency and intensity due to climate change. Shifts in the climate system have widespread social, environmental, and economic consequences. For instance, water-related hazards accounted for nearly half of all disaster-related deaths between 1970 and 2019, while flood-related disasters alone have increased by 134 per cent since 2000, further driving displacement and causing catastrophic economic losses worldwide (UNDRR, 2025). Without decisive action to ramp up adaptation finance and enhance adaptive capacity, current adaptation action will not keep pace with the scale of climate impacts (see Figure 1).



**Figure 1. Number of reported climate-related disasters, 1950 to 2024 (Ritchie & Rosado, 2024).**

However, the estimated adaptation finance gap of USD 284–339 billion per year until 2035 does not exist in a vacuum (Neufeldt et al., 2025); it is part of shifting global aid priorities and growing fiscal constraints in the wider international system. For instance, the dismantling of the United States Agency for International Development (USAID) and the subsequent cuts in US foreign assistance have left financial holes in the international system. Additionally, the OECD (2025) estimated a 9–17 per cent decline in official development assistance (ODA) in 2025, following a 9 per cent decline in 2024.

In parallel, the UN Office for the Coordination of Humanitarian Affairs reports that substantive funding cuts by major donors in 2025 have triggered a “seismic contraction” in humanitarian aid funding (UN OCHA, 2025: 9).

These shifts are strongly influenced by the ongoing Russian invasion of Ukraine, subsequent pressures among NATO allies to quickly scale up military spending, as well as an overall tightening of fiscal space resulting from post-Covid debt (for a detailed discussion of military spending and ODA, see Liang & Tian, 2024). Considering these developments, public resources alone are unlikely to close the adaptation gap.

In light of this, today’s development cooperation must find ways to sustain or even scale up its critical climate adaptation work under tightening fiscal and political constraints. This requires, among other things, identifying strategic levers through which targeted investments and partnerships for climate adaptation can yield the highest impact.



## Hard Talk Adaptation

The widening gap between global adaptation needs, available resources, and institutional capacities demands new ways of thinking about where and how progress can be achieved. Public resources and traditional development assistance alone cannot meet the scale or pace of climate change. Engaging the private sector and facilitating innovation processes have thus frequently been highlighted as critical levers to close this gap (e.g. Oxera, 2025). The private sector holds the financial resources, data, and technological capabilities needed to achieve adaptation goals, while social and technological innovation drives the emergence of new solutions and partnerships to accelerate adaptation progress.

In order to dive deeper into the role of the private sector and innovation processes for advancing climate adaptation, TMG Research launched Hard Talk Adaptation (HTA)—an international, multi-stakeholder dialogue designed to facilitate both an open exchange among scientific, technical, policy, and community-based perspectives, and critically reflect on current barriers and opportunities in climate adaptation. Across a multi-day format, the dialogues combined thematic inputs from selected speakers with interactive sessions in different formats, including guided discussions, plenaries, fishbowl sessions, world café exchanges, and panels through which participants shared case studies and practical experiences.

Hard Talk Adaptation explicitly recognized that the adaptation landscape consists of a wide spectrum of actors, some of whom are taking measures to adapt and strengthen resilience within their own domains. Their actions are taking place both within the context of global political processes as well as relatively independently of them. Participants represented perspectives spanning government agencies, international organizations, research institutions, civil society, and businesses, with voices from across Africa, Asia, Europe, and Latin America. A core group of participants was selected to attend all dialogue events and accompany the analysis of the results, to ensure the continuity and depth of the discussion. Their active collaboration and input played a key role in informing post-dialogue reflections and learnings.

Following the inaugural event in June 2024 in Berlin, the first HTA dialogue was held in Nairobi in November 2024, with a focus on (social) innovation for climate change adaptation. The second dialogue took place in Berlin in April 2025, and centred on private sector adaptation and the role of the private sector in advancing public resilience. The insights generated through these discussions are synthesized in the sections that follow.

# Advancing adaptation: Emerging themes and strategic directions

## Private sector

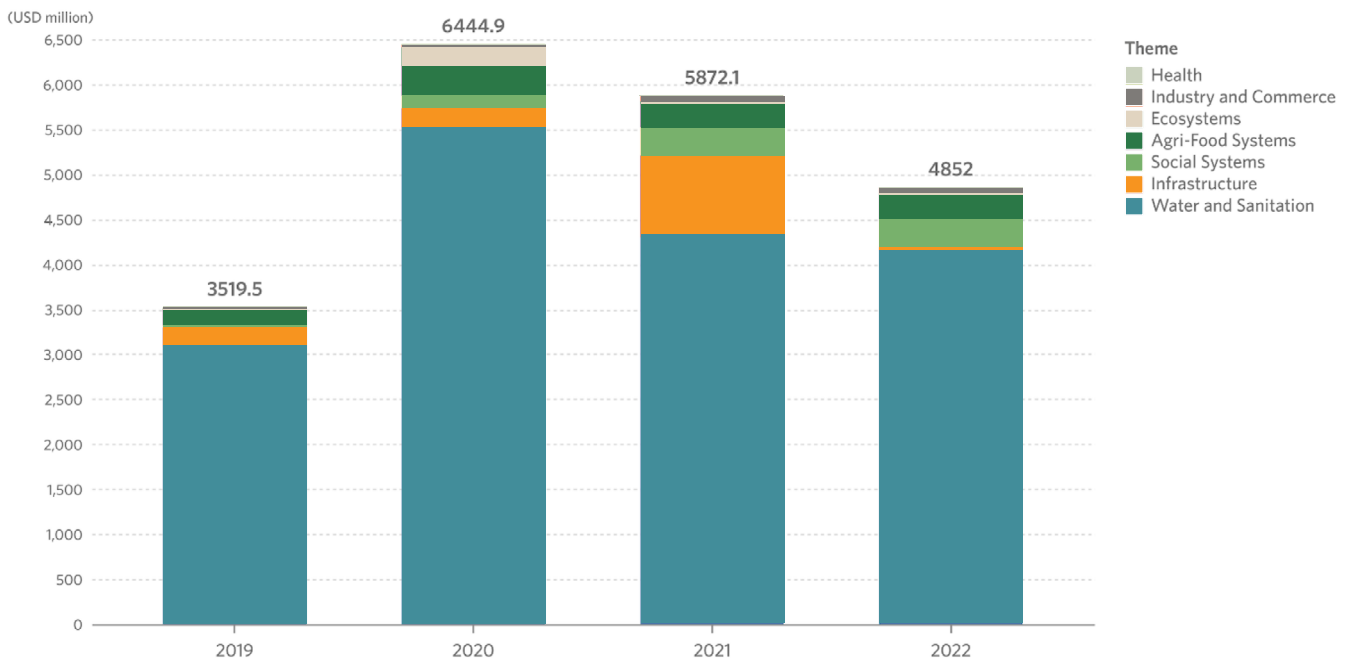
Investments are urgently needed to advance climate adaptation and build adaptive capacity. These are direct investments in human security and resilience: they reduce vulnerability, strengthen livelihoods, and help to ease pressures that otherwise disrupt development gains and exacerbate risks of conflict or displacement. However, public resources alone cannot meet the scale and urgency of the investment required. Moreover, international public adaptation finance (USD 26 billion in 2023) is unlikely to scale up by more than 10 times to meet the estimated needs of USD 310–365 billion per year by 2035 (Neufeldt et al., 2025).

The private sector is uniquely positioned to help close this gap, not only by mobilizing finance, but also by leveraging its infrastructure, supply chains, and wealth of data. Unlocking this potential, however, requires a shift in perspective; adaptation must be seen not as an expense and risk to be dealt with, but as a source of long-term value. According to a recent estimate, every US dollar invested in adaptation can generate more than USD 10 in benefits over 10 years (WRI, 2025). Due to their co-benefits for social stability, resilience, and sustainable development, these investments usually pay off even when disasters do not strike. When viewed through this lens, adaptation becomes a strategic investment that strengthens both business continuity and collective resilience.

Against this backdrop, the private sector has a critical and integral role to play within the adaptation landscape. Discussions during the HTA dialogue on the private sector delved into both the growing momentum and remaining obstacles shaping the private sector's role in advancing adaptation, as outlined below.

**1) An 'adaptation economy' is gradually emerging within an evolving Adaptation and Resilience (A&R) sector. It will become an increasingly valuable source of technological developments, goods, and services for climate adaptation.**

The adaptation economy within the A&R sector is made up of a growing number of early-stage enterprises and more advanced businesses developing products, services, and solutions that increase the efficiency and pace at which climate risks can be managed. Ranging from water and agriculture technologies to climate data analytics platforms, insurance models, and resilient infrastructure, this sector is beginning to attract a larger amount of private capital and investor attention (see Cox et al., 2024). The adaptation economy further consists of several early-stage investors and venture capital firms, such as [resist.vc](#) and [PT1](#) in Germany, which are shifting towards climate adaptation investments, while existing climate-tech portfolios increasingly integrate resilience elements. It is important to note that private sector investments within the A&R sector are typically not represented in the tracked adaptation finance category reported by the UNEP Adaptation Gap Report (Neufeldt et al., 2025). However, momentum across this sector is building. The A&R sector as a whole and the growing adaptation economy will become an important source of goods and services that can strengthen resilience and advance the overall adaptation landscape (see Figure 2).



**Figure 2. Private sector adaptation investment by theme (Connolly et al., 2024).**

This momentum is being driven by multiple factors. With businesses and consumers becoming more aware of climate change impacts and risks, the adaptation economy is diversifying across different sectors and geographies. Currently, the majority of activity lies in early- and mid-stage ventures that have greater freedom to experiment with new business models. Innovative start-ups such as [Callendar](#) or [r3leaf](#) are combining digital technologies and service-based elements to support climate risk management. These hybrid models can be appealing to investors within existing green-tech markets, while the rising costs associated with climate change impacts shape the risk-return ratio for adaptation goods and services. As one participant in the Berlin dialogue representing an early-stage investment firm explained, private capital invested in adaptation and resilience today will benefit from an early-mover advantage, as the demand for adaptation and resilience is set to increase, given the trajectory of climate change.

Current investors expect this demand to accelerate further, as national regulations are likely to embed more climate resilience requirements into, for example, building codes, as well as procurement, production, and infrastructure standards.

Despite this growing momentum, the adaptation economy also faces structural barriers. Many adaptation needs lie in public and low-margin sectors, including smallholder agriculture, which struggle to attract commercial capital without blended or concessional finance. Furthermore, private investment flows remain concentrated in advanced economies, leaving developing and emerging markets with limited access to much-needed adaptation capital. Lastly, shifting national and regional commitment to climate action continues to limit investor confidence, thereby creating a barrier to further scaling up of the A&R sector. Leveraging development finance to de-risk and crowd in capital for adaptation enterprises, goods, and services, especially in emerging markets, is critical to addressing these barriers.

**2) Many businesses, despite being highly exposed to climate impacts today, underestimate the severity of future climate scenarios, including more extreme pathways that would impose substantially different adaptation needs. Especially for Micro, Small and Medium-sized Enterprises (MSMEs), access to detailed climate risk information remains a critical bottleneck for adaptation.**

The private sector is confronted with escalating physical and transition risks from climate change which have an impact on assets, supply chains, and markets across sectors. For example, 60 per cent of companies in the S&P 500 Index physical assets—accounting for approximately USD 18 trillion in market capitalization—own physical assets that are exposed to a high risk of at least one type of climate-related physical risk (Mattison, 2020). Larger enterprises can afford to increasingly integrate climate change considerations into enterprise risk management, utilizing climate services, adapted risk analytics, and even building specialized A&R teams. Emerging disclosure standards such as the International Financial Reporting Standard (IFRS) S2 and the EU Corporate Sustainability Reporting Directive provide valuable frameworks to include information about climate-related risks into financial reporting. Moreover, standards such as ISO 14090 provide guidance for climate risk management and corporate governance, while regulatory instruments create investment signals by reducing uncertainty. The combination of these frameworks makes up a critical component of the enabling environment for private sector adaptation and facilitates capital expenditures that prioritize resilience, making adaptation a core element of corporate strategy. For example, companies such as [Enel S.p.A.](#), an Italian multinational company in the energy sector, are leading the way in institutionalizing adaptation and resilience activities as core business elements.



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While some companies are leading the way in assessing their exposure to climate risks across different scenarios, the private sector as a whole continues to give limited consideration to the business impacts of exceeding the 1.5°C threshold, even if temporarily. Larger enterprises typically have the technical and financial capacity to conduct such assessments, whereas smaller firms, in particular MSMEs in emerging markets, frequently lack access to climate risk analysis tools, granular weather data, and the financial resources needed to take comparable action. This uneven readiness to adapt was a key recurring theme in the Berlin dialogue. While larger firms can afford to invest in physical risk reduction, for instance, through diversified supply chains, distributed energy, and investing in research and development for climate-resilient products, many MSMEs are forced to focus on short-term measures. However, risk-transfer mechanisms, including catastrophe and parametric insurance, resilience bonds, and contingent credit lines, are expanding, partially supported through blended finance and public–private partnerships. Regional facilities such as the [Caribbean Catastrophe Risk Insurance Facility](#) demonstrate that pooled approaches can strengthen financial resilience and improve recovery following natural hazard events. Once again, a stable and predictable regulatory environment remains critical for attracting private capital and unlocking investments in adaptation.

### 3) Climate change adaptation goods and services from the private sector produce valuable spillovers for public resilience.

When businesses invest in adaptation, the benefits can extend well beyond their own operations. By building climate-resilient infrastructure, diversifying supply chains, or co-investing in nature-based solutions, among others, companies contribute to the resilience of surrounding communities and local economies. These spillover effects become especially visible in the essential services sectors. For instance, investments in resilient utilities, telecommunications, and logistics can enable faster disaster recovery and continuity of public utilities during extreme weather events, thereby helping to stabilize communities and economic function. Similarly, private investment in multi-hazard early-warning systems is critical for protecting shared assets and reducing public losses.

These linkages make private sector adaptation as well as the overall development of the A&R sector an important lever for advancing the GGA. Aligning private sector adaptation strategies with national adaptation planning and priorities creates an enabling environment for climate change resilience. As the Berlin dialogue has shown, some leading private sector actors such as Enel S.p.A. are using their experience to advocate for stronger public adaptation planning and policy, especially in areas where private enterprise and essential services overlap, such as the energy sector. In this way, leading private sector actors can move from passive compliance to active participation in public adaptation governance, contributing both resources and expertise to national adaptation planning.



## Innovation for adaptation

Innovation is a vital link for advancing the methods, partnerships, and technologies needed to scale up climate change adaptation. It involves the process of ideating, developing, and implementing novel solutions to tackle not only the technical challenges, but also the social dimensions. By reimagining how climate adaptation is organized and whom it serves, social innovation helps to address inequalities and ensure that adaptation is grounded in inclusive and relevant solutions.

Additionally, innovation is a process of continuous learning and adjustment. It enables flexibility and feedback loops that allow societies to adapt under uncertainty, an essential quality for ensuring that today's solutions remain viable in tomorrow's climate. In this sense, innovation is not only about scaling up individual ideas, but also about building transformative systems capable of evolving in the face of change.

Innovation can also help answer the 'how' of advancing action under adaptation governance objectives, such as the GGA. Clear entry points already exist where this will have a direct impact on success, such as under the GGA's indicator group of Technology Development and Transfer, which recognizes innovation as integral to advancing adaptive capacities.

Around the world, new hubs, accelerators, and community initiatives are emerging to foster both social and technological innovations. The following section explores outcomes from the HTA dialogue on ways in which innovation can take root and scale up.

**1) For innovation in climate adaptation to be effective, it needs a supportive and structured environment in which new ideas and solutions can grow, spread, and remain relevant as the climate system changes. Innovation ecosystems provide this environment by helping to scale up locally relevant solutions and by supporting regional learning institutions that help entrepreneurs test and refine their approaches.**

A structured 'pipeline' for innovations in the climate change adaptation field is taking shape. In other words, a systematic approach to move novel solutions from ideation to implementation has been developed by dedicated organizations across different regions. This involves a system of identifying promising ideas, providing early support, and linking emerging adaptation actors with finance, training, and implementation partners. Such a process is critical to the translation of existing regional climate information into practical adaptation measures that reduce risk and strengthen adaptive capacity at the local level.

Innovation ecosystems are the mechanisms through which this innovation pipeline functions, scaling up individual innovations and connecting them to a wider network of actors. Innovation ecosystems usually take the form of regional hubs or accelerators that provide connective tissue among entrepreneurs, researchers, businesses, investors, and public agencies. These spaces provide opportunities to co-create and learn, as well as providing access to funding, mentorship, and markets. Furthermore, regional innovation hubs offer non-conventional access to funding (e.g. open calls, challenge funds, 'climathons') that help to shape context-specific and local adaptation services and products. Examples such as the cooperation between [Climate-KIC](#) and [SmartLab](#) in Tanzania<sup>1</sup> illustrate how policy, capacity, entrepreneurship, and finance can be linked, in order to move past one-off pilot initiatives and towards regional hubs with coordinated stages of ideation, incubation, testing, and scaling. Other examples include the [AfroGreen ClimAccelerator](#), the [ClimateLaunchpad](#), or the [CATAL1.5°T-Initiative](#).

Innovation hubs and accelerator programmes are an effective way to de-risk investments in climate adaptation innovation, as they help to guide entrepreneurs and start-ups through the early stages of building a business.

Flexible and blended finance instruments can be particularly effective in the context of innovation ecosystems, bridging the gap between early-stage support and market-ready implementation of adaptation goods and services. Governance frameworks that encourage experimentation, access to climate risk information, and learning mechanisms enable innovations to continue to deliver benefits even as climate risks evolve. When these elements are in place, innovation pipelines can move incremental adaptation measures towards more transformative and systematic approaches. The role of innovation ecosystems in linking creative ideas with durable support mechanisms and finance within the adaptation economy will be indispensable for developing adaptation solutions that remain viable under future climate scenarios.

However, the Nairobi dialogue has also shown that many promising community-based or small-scale (social) innovations remain outside these innovation ecosystems, as they lack access to the networks, data, and finance required to reach the first stages of the innovation pipeline. In these situations, research institutions, development actors, and civil society organizations play a vital role in linking community-based initiatives to regional innovation hubs to help surface and scale up underrepresented (social) innovations.

<sup>1</sup> For more information about the Adaptation and Resilience ClimAccelerator, see <https://www.climaccelerator.smartlab.co.tz>



**2) Innovation for adaptation succeeds when social and technological innovation work jointly. Currently, technological innovations receive a greater amount of attention and funding, potentially due to underlying notions of what innovation is and the perceived profitability of the goods and services it produces. Social innovation, however, is critical for developing more effective and just solutions for complex social problems and adaptation challenges. The way forward involves blending both types.**

Technological innovation delivers the tools, services, and systems that make adaptation measures more precise, faster, and efficient. This might include climate-resilient crops, AI-driven risk analytics, climate services and early warning technology, or green-grey infrastructure solutions. Social innovation, on the other hand, shapes the norms, values, and rules underlying social behaviour (see Ziervogel & Hamann, 2024). Thus, social innovation can be the critical link that determines whether technical goods and services are adopted, by whom, and for what benefit. If technological innovation closes the efficiency gap in adaptation, then social innovation closes the equity gap, challenging the status quo and ensuring that adaptation measures actually reach marginalized groups.

However, the current innovation landscape appears imbalanced. Venture capital and public innovation funds tend to prioritize technological innovation, while social innovation remains limited in scale and is mostly supported through grants. This mismatch will continue to limit the transformative potential of innovation for adaptation. Technology alone is unlikely to change systems, reach marginalized groups, and address underlying drivers of vulnerability. Supporting social and technological innovation in tandem can turn innovations into transformation. For instance, Ziervogel and Hamann (2025) argue that new kinds of drought-resistant crops become more viable once “complemented by social innovations such as cooperatives that reduce individual farmers’ transaction costs” vis-à-vis other market participants.



Examples from the Nairobi dialogue illustrate how community-led as well as indigenous knowledge and traditional approaches, including community-built sand dams and community land leasing, can be directly supported through innovation accelerators that focus on civil society and are dedicated to grassroots adaptations, such as the [UNDP Adaptation Fund Climate Innovation Accelerator](#). The constraint to scaling up successful grassroots solutions is rarely creativity, but rather capital, networks, and market pull. Addressing these barriers requires targeted support mechanisms and inclusive innovation ecosystems that value the contributions of social and technological innovations equally.

# Conclusion

Hard Talk Adaptation echoes a well-known yet important fact: public institutions and public funds alone cannot deliver the resources necessary to adapt to the intensifying impacts of climate change. Advancing climate adaptation thus depends, in part, on understanding how people, communities, and institutions across society are already adapting, while also finding ways to link their efforts into a more connected and collaborative adaptation landscape. Focusing on innovation processes and private sector adaptation, the HTA dialogues have provided insights into the perceived opportunities and challenges within these respective fields.

One key trend identified through the dialogues is the emergence of an adaptation economy. It comprises early investors who perceive climate adaptation as an opportunity and businesses of all sizes developing technologies, goods, and services specifically designed to manage the impacts of climate change. The adaptation economy will most likely become an important source of private capital and a means of increasing private sector contributions to public adaptation goals.

At the same time, businesses' own exposure to climate impacts means that private sector adaptation is increasingly an investment in business continuity and risk management. When aligned with public adaptation goals, these investments can generate significant spillover benefits for societal resilience, including more robust essential services and infrastructure, improved disaster risk management, and more climate-resilient local economies.

The dialogues have also shown that innovation ecosystems which specifically target the A&R sector have matured significantly over the past years. Innovation ecosystems, including the physical spaces they provide in the form of local hubs and centres, offer a valuable multi-stakeholder and interdisciplinary environment that encourages experimentation—a critical feature for climate adaptation. Thus, innovation ecosystems will likely play an increasingly critical role in unlocking and realizing the potential for transformative adaptation. However, as the dialogues highlighted, technological innovation alone rarely does the job. How institutions, norms, and resource distribution are shaped often determines whether new solutions take root, who benefits from them, and how fairly outcomes are distributed. Here, social innovation emerges as a critical mechanism for bringing about social change and changing existing behaviours. Strengthening innovation ecosystems that purposefully link social and technological dimensions could therefore be one promising way to make adaptation both more equitable, effective, and locally relevant.

Within this evolving adaptation landscape, development cooperation has a distinct and strategic role to play. It can help shape the enabling conditions under which private sector contributions to and innovations for adaptation are more likely to emerge and be sustained. This can encompass, among others, support for regulatory and policy frameworks to advance the adaptation economy,



de-risking early-stage activities through blended finance instruments, and providing platforms through which the private sector can contribute to national adaptation planning. Development cooperation may also help to address persistent structural gaps, for instance, by supporting MSMEs in translating climate risk information and weather data into adaptation measures, and supporting community-based and social innovations in accessing innovation ecosystems.

In this context, matchmaking will likely become increasingly valuable. The capacity to connect actors across the expanding adaptation landscape becomes increasingly relevant as adaptation needs continue to outpace available public financial resources. Well-designed matchmaking—linking, for example, innovators and financiers, businesses and public authorities, or data providers and end users—may contribute to accelerated learning, lower transaction costs, and the mobilization of additional investment. By convening stakeholders, facilitating partnerships, and supporting platforms

that enable exchange and co-investment, development cooperation can help to mature the A&R sector and strengthen innovation ecosystems.

Finally, the dialogues point to the importance of situating both private sector adaptation efforts and innovation-oriented solutions within a broader range of possible climate futures. Considering growing scientific indications that global warming may, at least temporarily, exceed the 1.5°C threshold, there is a risk that strategies built for today's climate may prove insufficient or maladaptive under more extreme scenarios. This raises the need to more systematically examine adaptation strategies and investments in terms of their own adaptiveness across higher warming scenarios. Taken together, the HTA dialogues emphasize the strategic role of development cooperation in shaping the institutional, social, and financial conditions needed to scale up innovation and private investment in ways that support equitable and robust adaptation under uncertain climate futures.



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