REGIONSADAPT

PROGRESS REPORT 2025

Financing adaptation where change happens

Scaling subnational action to close the gap

In partnership with:

Regions4 Sustainable Development

Metroeconomica

CDP

RACE TO RESILIENCE

Foreword

Climate change affects every region of the world, and its impacts are becoming increasingly noticeable. Floods, droughts, wildfires, and heatwaves are occurring more frequently and with greater intensity, disrupting nature, economies, and communities. Addressing these challenges requires more than just reacting. Thoughtful measures are needed to limit their impacts and improve adaptation.

Subnational governments — federated states, provinces, regions — are on the frontlines of these challenges. Because they manage territories and provide services directly to citizens, they are also the first to be in a position to act quickly and effectively. Their experience on the ground is a valuable asset in guiding climate action.

Québec has distinguished itself through ambitious climate policies, notably through its carbon exchange market, which lies at the heart of its approach. Its carbon market sends a clear signal to businesses: emissions must be reduced, and innovation is key to a successful transition. The revenues it generates finance projects that strengthen public infrastructure, support municipalities, and help citizens prepare for climate-related challenges. Drawing on this experience, Québec can inspire other governments worldwide to adopt similar mechanisms.

Québec is proud to be an active member of RegionsAdapt, which has fostered collaboration, shared best practices, and strengthened ambition in climate action for more than 10 years. This report is a valuable resource for all stakeholders engaged in climate transition and highlights the importance of both local and international financing to support adaptation.

May the insights from this report help strengthen the engagement of governments and financial actors in support of thoughtful, responsible, effective, and sustainable climate action.

Bernard Drainville
Minister of the Environment, the Fight against Climate Change, Wildlife and Parks
Minister Responsible for Maritime Strategy
Government of Québec

For years, climate pressures have shaped public policy around the world. Longer droughts, harsher heat and heavier floods already influence how territories plan and execute, to protect people and keep economies running.

In Africa, the stakes are higher and more urgent. A young and rapidly urbanising continent, rich in natural resources and human potential, still remains closely tied to water, soils, and ecosystems for food and employment. The climate risks can quickly translate into social pressures: food security concerns, public-health stress, and strain on essential infrastructure. Even with strong mitigation, the effects already unfolding will intensify. In this context, adaptation stands as a central priority for protecting lives, livelihoods, and sustaining development gains.

Because climate pressures are felt locally, the most effective responses must be local. Subnational governments turn global goals into concrete action: they shape land use, manage water and mobility, and deliver essential services that sustain resilience. When mandates are clear and cooperation works, adaptation becomes a steady public function that protects people and supports lasting development.

Financing must make this possible. For too long many credible priorities stall at the last mile — budgets without climate focus, complex access to international support, and preparation left unfunded. This is a climate-finance agenda: integrate climate objectives into core budgets and predictable transfers, finance project preparation with the same commitment as implementation, and align instruments with territorial realities.

This report carries that agenda forward. Through Regions4 and its RegionsAdapt initiative, within the Race to Resilience campaign, it brings together evidence from member regions and partners to illustrate what works on the ground, what still constrains progress, and how to align budgets, transfers, and instruments so that finance serves territories rather than procedures. Its core purpose is to help decision-makers move faster from well-defined priorities to financed, durable programmes at the scale where impact is real: the regions.

Rachid El Abdi
President
Regional Council of Rabat–Salé–Kénitra (Morocco)
Vice-President for Africa, Regions4

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Executive Summary

Why This Report

Adaptation finance is failing the frontline. Communities least responsible for the crisis are already suffering the heaviest losses. Yet adaptation finance remains severely inadequate: developing countries alone face adaptation costs of up to US $365 billion annually by 2035 (UNEP, 2025), yet in 2023 **only about 3.4 per cent of global climate finance was directed to adaptation** (CPI, 2025). **Even less reaches the subnational level**—where adaptation happens closest to communities, ecosystems, and critical infrastructure.

Drawing on research, member insights, and data from 109 subnational governments reporting to CDP (including 41 RegionsAdapt members), this report examines how regions are mobilising finance, the barriers they face, and the systemic reforms needed to scale investment where it matters most.

Key Findings: Regions at the Centre of Adaptation Finance

Adaptation finance is not reaching where it is most needed. The gap is widening, subnational governments remain sidelined, yet regional innovation shows solutions already exist if systemic support is unlocked.

The adaptation finance gap is widening

- Shortfall of **US$284–339 billion per year** for developing countries alone for 2035.
- Subnational governments often receive **little to no direct access** to international climate funds. Less than **17% of adaptation finance reaches the local communities.**

Subnational governments are the missing link in the global finance architecture

- Regions are responsible for **~70% of climate-related public investment in OECD countries**.
- Yet most adaptation finance is channelled via national governments, bypassing regional authorities.

Finance flows remain unequal and inefficient

- Middle-income, creditworthy regions capture a larger share, while the most climate-vulnerable often lack access.
- High transaction costs, centralised access rules, and complex accreditation exclude many subnational actors.

Barriers are structural, not only financial

- **Weak mandates and silos.** In many cases, regions lack authority and coordination to lead adaptation.
- **Low creditworthiness, untailored finance.** For many regions, weak fiscal autonomy and unsuitable instruments block access to capital.
- **Weak projects, limited bankability.** Many projects fail to reach investment-ready stage.
- **Data gaps and poor monitoring.** Incomplete data and weak M&E can make risks and results invisible.

Regions in Action

Yet innovation is emerging at the subnational level, showing that regions are part of the global finance solution. This report highlights eleven cases that demonstrate how regional governments are already transforming finance for resilience, including:

- **Québec** reinvests 100% of carbon market revenues directly into climate action, turning carbon pricing into a guaranteed lifeline for adaptation.
- **Catalonia** channelled €500 million from green taxes into a dedicated Climate Fund, proving how fiscal reform can secure predictable adaptation resources.
- **São Paulo** pioneers blended finance for ecosystem restoration.
- **Paraná** introduces the world's first biodiversity credit scheme at subnational level, valuing conservation to channel finance into nature-based resilience.
- **Kenya's FLLoCA programme** devolves climate finance directly to counties, empowering locally led adaptation at scale.

Strategic Recommendations

Regions are pioneering adaptation finance, but without systemic reform these remain isolated pilots. RegionsAdapt calls for action — enabling subnational governments to unlock finance from within and pushing systemic actors to reform the wider architecture.

For subnational governments: Enabling finance from within

1. **Develop subnational investment plans and bankable project pipelines** that move from diagnostics to finance-ready proposals, aligned with National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs), and call for these to be recognised by national and international funds as eligible for direct support.
2. **Strengthen data and monitoring systems** to track adaptation investments, while also proving results and building the case for direct access to funds.
3. **Use innovative financial tools tailored to local realities**, while strengthening fiscal foundations through own-source revenue, creditworthiness, and blended finance.
4. **Mainstream adaptation across planning and finance** so that climate resilience becomes part of fiscal planning, budget tagging, procurement, and investment strategies.
5. **Foster collaboration and partnerships** across levels of government and with private actors, using networks like RegionsAdapt to pool resources, share solutions, and advocate together for systemic reform.
6. **Strengthen legal and policy frameworks** to embed climate and biodiversity into laws, budgets, and finance systems — giving regions the mandate and legitimacy to demand direct access to finance.

For systemic actors: Reforming finance systems and unlocking systemic support

1. **Institutionalise subnational roles and multilevel governance,** by locking mandates into climate legislation, country platforms, and COP30 outcomes — otherwise finance will continue to bypass where adaptation happens.

2. **Expand direct access and empower subnational finance,** by creating dedicated subnational windows in climate funds, empowering regional development banks, and reforming fiscal frameworks so finance can flow directly to territories.

3. **Track and align finance with resilience needs** by systematically reporting on subnational flows, including subnational indicators in the Global Goal on Adaptation, and harmonising monitoring frameworks so global reporting reflects realities on the ground.

4. **Adapt instruments and build project preparation ecosystems** so subnational governments can actually prepare and access bankable projects.

5. **Invest in just and resilient pathways** by prioritising finance that delivers equity, protects biodiversity, and supports livelihoods, not only large-scale infrastructure.

The Way Forward

Adaptation finance is not keeping pace with the escalating risks of climate change. Yet subnational governments—**the territorial anchors of adaptation**—are already demonstrating financial innovation, governance leadership, and delivery capacity.

Scaling up investment at this level is not only a matter of efficiency, but of **justice and survival**. **Empowering subnational governments with direct access, stronger mandates, and systemic support** will help close the finance gap, protect communities, and ensure resilience where it is most urgently needed.

RegionsAdapt and its members stand ready to lead this transformation—turning political commitments into financial reality, and financial resources into climate adaptation and resilience.

Glossary

- **Climate action**: Actions that reduce greenhouse gas emissions (mitigation) or strengthen resilience to climate impacts (adaptation).
- **Adaptation**: The process of adjusting to actual or expected climate and its effects.
- **Mitigation**: Interventions to reduce sources or enhance sinks of greenhouse gases.
- **Climate finance**: Local, national or transnational financing—drawn from public, private and alternative sources—that seeks to support mitigation and adaptation actions to address climate change.
- **Funding**: Provision of financial resources that do not require repayment.
- **Financing**: The structuring and mobilization of repayable financial resources.
- **Concessional finance**: Loans extended on terms substantially more generous than market loans, often through lower interest rates, longer grace periods, or partial grant components.
- **Blended finance**: The strategic use of development finance (public or philanthropic) to mobilise additional private capital flows toward sustainable development in developing countries.
- **Multi-level governance:** A system of continuous negotiation among nested governments at several territorial tiers—supranational, national, regional, and local—shaping how policies are coordinated.
- **Regions**: Territorial units below the national level—such as states, provinces, autonomous communities, or departments—that hold political, administrative, or fiscal authority.
- **Resilience:** The capacity of social, economic and ecosystems to cope with a hazardous event or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure as well as biodiversity, while also maintaining the capacity for adaptation, learning and transformation.
- **Urban**: Relating to cities, towns, and other densely populated areas.
- **Loss and damage**: The negative impacts of climate change that go beyond adaptation, including both economic and non-economic losses.
- **Bankability**: The degree to which a project is considered financially viable and attractive to investors, meeting risk, return, and fiduciary standards required by financiers.
- **Creditworthiness**: The perceived ability of a government or institution to meet its financial obligations.
- **Behavioural action**: Adaptation actions based on changes in human practices, consumption patterns, or decision-making, without necessarily relying on new technologies.
- **Technological action**: Adaptation measures that depend primarily on technical innovations, infrastructure, or equipment
- **Economic actions**: Instruments or measures that use economic incentives or market-based approaches to influence behaviour and support adaptation.
- **Service actions**: Measures that enhance or expand services (such as health care, water supply, disaster response, or social protection) to increase resilience to climate impacts.
- **Laws and regulations actions**: Formal legal instruments and regulatory standards adopted by governments to guide climate action, such as climate laws, building codes, or emissions standards.
- **Engineered and build environment actions**: Adaptation interventions applied to physical infrastructure, housing, transport, and urban design, aimed at reducing risk.
- **Educational/ informational actions**: Actions that provide knowledge, awareness, training, or capacity building on climate risks and responses to empower informed decision-making.
- **Government policies and programs actions**: Strategies, plans, and programs designed and implemented by governments to mainstream climate objectives into development agendas.
- **Ecosystem-based Adaptation (EbA) actions:** Nature-based solutions that use biodiversity and ecosystem services as part of an overall strategy to help people adapt to the adverse effects of climate change.

Framing adaptation

Why subnational investment is non-negotiable

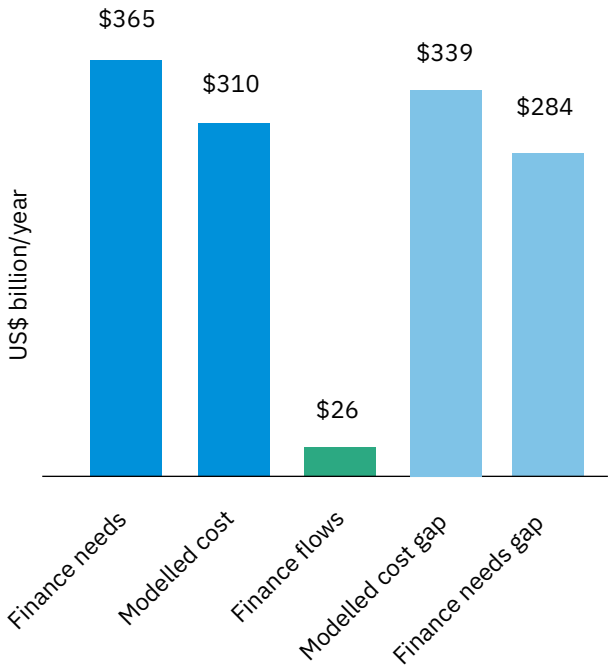
Adaptation finance gap: The urgency of expanding adaptation finance horizons

Adaptation finance is failing the frontline. Despite growing recognition of climate risks, funding flows remain far from adequate to protect the most vulnerable. Climate impacts are already disrupting lives, ecosystems, and economies, while the window for effective action narrows. The world is still on track for a 2.6–3.1°C temperature increase by the end of the century (UNEP, 2024) which would exacerbate these pressures considerably. The costs are already evident: climate change costs the world 12% in GDP losses for every 1°C of warming (Bilal & Känzig, 2024). Regional disparities are expected: by 2070, Asia and the Pacific could lose 16.9% of GDP, while by 2050 Africa may face losses of up to 15% in Malawi, 12% in Niger, 11% in Mali and Chad, and 10% in Cameroon (Campagnolo, Mansi, Bosello, & Raitzer, 2024)(Global Center on Adaptation, 2023).

Yet climate adaptation remains significantly underfunded. UNEP's latest update, drawing on countrylevel information from National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs), estimates that adaptation costs in developing countries alone could reach US$365 billion annually by 2035, while current financial flows fall dramatically short (UNEP, 2025). As shown in Figure 1 the adaptation finance gap ranges from US$284 billion to US$339 billion, which raises concerns over the burden on developing countries.

Moreover, adaptation continues to lag behind mitigation in terms of financial support. In 2023, only 3.4% of global climate finance flows was directed toward adaptation, growing to 6.4% when including dual adaptation and mitigation benefits. Furthermore, tracked adaptation finance remains dominated by public actors (90%), with fragmented flows from the private sector (CPI, 2025). Unlike mitigation, which offers clearer, quicker financial returns, adaptation targets long-term resilience to uncertain future risks, making it harder to define and fund. This challenge is compounded by the enduring lack of clear metrics and indicators to support the Global Goal on Adaptation, metrics that could be concretely operationalized by public and private investors as well as by implementers, particularly at the regional and local level. Without such agreed and practical benchmarks, it remains difficult to assess progress, compare outcomes across contexts, and channel finance efficiently toward adaptation priorities.

Figure 1: *Adaptation finance needs, modelled adaptation costs and international public adaptation expenditure and adaptation finance gap in 2021.*



- Adaptation gap is estimated at US$284 to US$339 billion/year for developing countries.
- Adaptation costs/finance needs are 12–14 times as much as current international flows.

Source: Adapted from UNEP Adaptation Gap Report 2025

Closing the adaptation finance gap requires more than increased international finance: it demands a broader, more systemic approach that includes scaling domestic budgets, mobilising the private sector, and empowering subnational and local levels. This is especially crucial as over two thirds of estimated costs/finance needs are in areas that are typically financed by the public sector (UNEP, 2024).

In addition to being underfunded, adaptation finance flows are also uneven. Many middle-income and more creditworthy countries capture a larger share of adaptation funds, while fragile and climate-vulnerable economies—where the need is often greatest—struggle to access resources. Within countries, funding is often concentrated at the national level or in capital-intensive projects, with far less reaching subnational governments and local actors who are closest to the impacts. In emerging markets and developing economies (EMDEs), **climate change functions as a risk multiplier—exacerbating poverty, food insecurity, and conflict**—yet financing needs in these contexts remain only partially understood due to limited data, weak monitoring systems, and fragmented reporting.

There is also growing recognition that transformational adaptation must happen at the local level, where impacts are felt first and responses can be most targeted, yet there is limited evidence on how much funding trickles down to regional and local actors, limiting our understanding of where and how adaptation investment is—or is not—flowing. Available estimates suggest that only around 17% of adaptation finance reaches local communities (UNEP, 2023).

Recent attempts, such as those by the Climate Policy Initiative to track private sector contributions using new methodologies, represent important steps forward in addressing this gap (CPI, 2024). While such estimates remain methodologically challenging and uncertain, they highlight the need for improved approaches to track both public and private flows of adaptation finance, particularly at subnational levels. Without a clearer picture of where adaptation money is flowing—and where it is not—it will be impossible to ensure that finance is effectively targeting the most vulnerable regions and enabling the actors best positioned to respond.

To bridge these gaps, a **move away from reactive, short-term funding is needed, towards strategic, long-term investments that prioritise systemic and structural changes**, reduce long-term risk, build institutional resilience, and address underlying drivers of vulnerability. Importantly, this shift must also expand *where* adaptation finance is directed, and *who* is enabled to act.

The RegionsAdapt Progress Report 2025 calls for an expanded vision of adaptation finance—one that recognises the critical role of subnational governments, highlights persistent gaps, and promotes more inclusive, multi-level investment strategies. By sharing existing sources, mechanisms, and practices already being implemented on the ground, and putting forward practical recommendations, this report aims to elevate regional experiences and support efforts to accelerate and scale up investment where it matters most.

Territorial anchors of adaptation: The value of subnational governments

Subnational governments are the missing link in the global finance architecture. While climate action is often framed at national and international levels, subnational governments—regional, provincial, and state authorities—often play an indispensable, often under-recognised role in building climate resilience.

Water, agriculture, and infrastructure are the top priority sectors for adaptation finance needs across most countries and regions, with the highest costs in flood protection and coastal defence (UNEP, 2023), and this is precisely areas where subnational actors hold key mandates. **Positioned close to communities and ecosystems, they are among the first to experience the impacts of climate change and among the first to respond, not just as implementers, but as strategic leaders.** Their proximity gives them a vested stake in adaptation planning, as well as a unique knowledge of local contexts, opportunities, and capacities that can be leveraged for effective action. This places them in a strong position to design and deliver adaptation measures that complement national strategies and accelerate implementation.

While increased finance is urgently needed, several subnational governments are already demonstrating financial innovation, leadership, and delivery capacity. From establishing regional climate credit markets to leading international cooperation efforts, these governments prove that the subnational level is not merely a gap to be filled, but a strategic entry point for transformative, scalable, and locally grounded adaptation.

Regions as policymakers

Subnational governments are not only implementers of national policy but are also often policy makers in their own right. With regulatory authority and budgetary autonomy, they design climate adaptation and resilience strategies that reflect specific territorial risks, priorities, and socio-economic-environmental conditions. Their **territorial and tailored approach** allows them to connect both urban and rural realities, manage natural resources across jurisdictions, and design coherent responses that transcend administrative boundaries. Furthermore, **this role is not static** and will grow as climate impacts intensify and adaptation needs become more complex.

Compared to municipalities, regions generally have broader mandates, larger scale, and often greater capacity to attract and coordinate funding amongst actors within their territories. This enables economies of scale, cross-sectoral integration, and longer-term planning. As such, regions can serve as policy laboratories, piloting ambitious regulatory, fiscal, and planning innovations that can later be scaled or replicated nationally or internationally. Importantly, regional **adaptation action does not only reduce climate risk but also contributes to wider socio-economic priorities**—such as sustaining growth, creating jobs, improving education and health outcomes, and reducing inequalities and connecting urban solutions with nature, broader watersheds and forest management —making it a strategic investment for political leaders.

Focus box 1.1

Subnational climate laws: Lombardy joins a growing movement

Across RegionsAdapt, subnational climate laws have become increasingly common. In countries such as Spain, Brazil, Mexico, Canada, and Australia, most participating regions operate under dedicated legislation that not only set ambitious targets but also establish climate funds, earmark revenues, or integrate climate objectives into public budgets to mobilise resources for adaptation and resilience.

The most recent example comes from **Lombardy, Italy**, which in July 2025 became the first Italian region to adopt a climate law. Alongside emission-reduction and resilience objectives, the law sets out how climate action will be financed and monitored. It establishes a financial rule with specific allocations and the possibility of mobilising state, EU, and private resources; requires the integration of climate priorities into sectoral budgets with priority access for projects supporting mitigation and adaptation; and mandates biennial reporting on planned and spent resources. Through these measures, Lombardy embeds climate finance into its governance and budgetary framework, complementing its policy commitments with concrete mechanisms for funding and accountability.

Regions as multilevel connectors

Given adaptation is place and context specific, as climate risks, vulnerabilities, and adaptive capacities vary widely across territories, **subnational governments are also crucial intermediaries that link national climate policies and international funding to local-level action**. In this role, they help bridge the persistent gap between top-down mandates and bottom-up needs, ensuring resources and knowledge reach where they are most needed.

This connector role is particularly relevant in multilevel governance systems, where responsibilities for adaptation are shared among national, regional, and municipal authorities. Regional governments often have sufficient administrative capacity, territorial oversight, and policy mandate to interpret and translate national adaptation priorities into concrete, territorialised strategies —pooling resources and mobilizing both public and private finance for effective adaptation. Where decentralised climate finance exists, their ability to manage funds directly impacts the efficiency, equity, and sustainability of local adaptation.

As intermediary actors, regional governments take on key strategic roles:

- **Financial conduits**: Facilitating access to climate funds by pooling resources, matching co-financing requirements, and managing sub-grants to municipalities—especially important for international and national funds that are difficult for small municipalities to access directly.
- **Capacity developers:** Offering technical support for local climate planning, vulnerability assessments, project design, and monitoring frameworks. By consolidating this technical knowledge, regions can also help identify and quantify adaptation investment needs, feeding into national processes such as NDC investment plans. In doing so, they also contribute to the evidence base required for emerging Country Platforms and other mechanisms that aim to align public and private finance with national climate priorities.
- **Policy integrators:** Ensuring that adaptation goals are aligned across levels of government. Regional authorities adapt national or international frameworks to regional realities, while harmonising local plans within broader territorial and sectoral strategies.
- **Knowledge brokers:** Collecting and disseminating regional climate data, standarising methodologies, and fostering municipal peer learning.
- **Monitoring and evaluation nodes**: Given that most adaptation investments and actions occur at the local scale, regional governments are particularly well placed—especially within multi-level governance arrangements—to serve as key nodes for monitoring, evaluating, and reporting on efforts, progress, and outcomes.

This coordination function becomes especially important as performance-based finance and result-oriented mechanisms gain traction. These often require project readiness, measurable outcomes, and cross-sector integration—all of which are challenging for municipalities to deliver on their own. Regional governments, acting as aggregators and guarantors, can help ensure projects meet funding criteria, unlocking finance that might otherwise remain inaccessible.

However, this intermediary role is not automatic — it requires clear legal mandates, fiscal empowerment, and investment in institutional capacity. Strengthening their role and formal recognition in national framework is therefore essential to building a coherent and resilient adaptation finance system.

Focus box 1.2

Territorialising climate action across levels of government

Regional governments often play a bridging role between national policies and local realities by supporting municipalities directly.

In the **State of Rio de Janeiro, Brazil**, the *Ambiente Resiliente* framework (2021) helps all 92 municipalities integrate resilience, risk management, and the SDGs into local policy. In 2024, the state and UN-Habitat launched *Rio Inclusivo e Sustentável* to strengthen urban and climate resilience, piloting the participatory CityRAP tool in nine municipalities to co-design local adaptation actions and track progress against SDG-aligned indicators. (UN, 2024).

In the **Province of Québec, Canada**, the climate consortium Ouranos exemplifies how regional science-policy platforms can enhance coordination across governance levels. By helping municipalities develop robust adaptation plans informed by regional climate projections, this allows to scale scientific insights into local policy and infrastructure planning (Ouranos, 2024).

Regions as implementers of high-impact, under-recognised adaptation

CDP's States and Regions disclosure provides one of the few global views into how subnational governments are turning adaptation planning into action on the ground. From the 109 governments that self-reported in 2023, over 370 distinct adaptation actions were documented.

Notably, many of the most frequently reported actions — such as ecosystem-based solutions, government policies and programs actions, and educational initiatives, infrastructure upgrades, and regulatory tools such as zoning laws— are public goods and services that do not typically generate direct financial returns but are essential for long-term resilience. These measures lay the groundwork for broader adaptation efforts. (*See Figure 2*)

The prominence of ecosystem-based approaches is also reflected in international climate finance flows to developing countries. Around a quarter of funding that addresses both mitigation and adaptation is channelled towards general environmental protection (UNEP, 2023), highlighting the synergies offered by nature-based solutions.

Ecosystem-based adaptations are not simply an additional co-benefit of climate action, but a strategic foundation for subnational adaptation. By sustaining water resources, reducing flood and drought risks, buffering heat extremes, and lowering wildfire hazards, healthy ecosystems provide essential public services that are often undervalued in financial accounts yet critical to community resilience and regional economies.

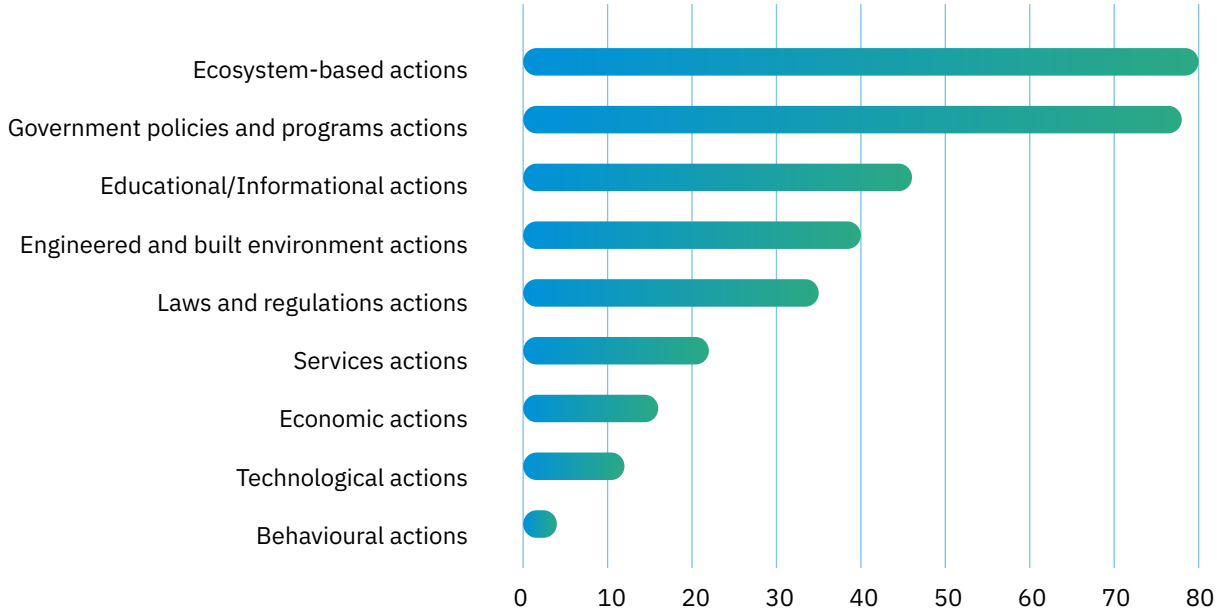
Although not all climate finance qualifies as biodiversity finance, many investments in biodiversity conservation contribute directly to adaptation. At the same time, it is important to recognize that these synergies are not automatic. Finance instruments designed primarily for carbon or biodiversity outcomes—such as carbon credits or biodiversity credits—may deliver some adaptation co-benefits, but because they are not explicitly structured around risk reduction, their effectiveness for adaptation can be limited. In some cases, **trade-offs may also arise, underscoring the need for careful design and monitoring.** For this reason, the present report features selected cases where biodiversity-driven finance supports subnational adaptation objectives, while noting the importance of assessing both synergies and potential trade-offs.

While typically labelled as "environmental" or "biodiversity" funding, these investments generate measurable adaptation outcomes and should be recognised and accounted for as such. Indeed, ecosystems provide critical public services that reduce climate risk—such as water regulation, fire risk reduction, and drought buffering—making investment in them a cost-effective adaptation strategy. The challenge is that these values are rarely captured in financial metrics. **As a result, high-impact ecosystem-based measures risk being overlooked in favour of more easily quantifiable investments**. Strengthening indicators, valuation methods, and monitoring frameworks is therefore critical to ensure that the adaptation value of ecosystems is visible to decision-makers and funders.

Mechanisms historically developed in the biodiversity space, such as Payments for Ecosystem Services (PES), Reducing Emissions from Deforestation and Forest Degradation (REDD+) frameworks, and emerging biodiversity credit markets, are increasingly being deployed for adaptation. **In Brazil, Ecuador, and Catalonia, subnational governments have already pioneered these integrations,** unlocking new revenue streams while embedding ecosystem integrity as a core principle of territorial adaptation finance.

Recognising biodiversity finance and ecosystem-based adaptation as central pathways for adaptation can significantly broaden the resource base available to subnational governments, particularly in ecologically sensitive or climate-vulnerable regions. It also strengthens the case for investing at the subnational level, where risks are immediate and response capacities most direct.

Figure 2: *Adaptation actions taken by sub-national governments*



Source: Own elaboration using CDP 2023 data

Regions as climate financiers

In OECD countries, subnational governments are responsible for nearly 70% of public investment related to climate action —a clear indication that they are not peripheral but central to financing and delivering adaptation on the ground (Chatry, I. et al., 2025). Investing at the regional level offers high value for money, as these actors often have the ability to attract private capital, generate cross-sectoral co-benefits, and design integrated, efficient, and locally appropriate adaptation outcomes.

Subnational governments are not only recipients of climate finance, but also strategic enablers of investment. With planning and regulatory powers, they can mobilize, leverage, and direct resources toward impactful adaptation and resilience.

Increasingly, subnational governments—particularly in high-income countries—are also stepping into international climate finance. Through decentralised cooperation, south-south cooperation, and region-to-region partnerships, they are supporting peers in more vulnerable contexts via technical assistance, funding, and knowledge transfer. This model of cooperation based on mutual learning, trust, and shared governance experience offers a bottom-up, equitable alternative to traditional aid, aligned with global principles of climate justice, subsidiarity, and solidarity. This leadership also positions regions to influence the architecture of emerging global finance instruments.

Focus box 1.3

Subnational solidarity: Supporting the most vulnerable

A growing number of regions are allocating international cooperation funds within their climate budgets to support vulnerable communities abroad. These contributions go beyond finance, combining project funding with policy expertise in areas like water governance, nature-based solutions, social support and climate planning.

Québec's International Climate Cooperation Program (ICCP) is an UN award-winning example. Entirely funded by its cap-and-trade system, it has invested near CAD 50 million (approx. US$36 million) since 2016 in 65 climate projects –with over 85% of resources dedicated to adaptation measures– across 17 Francophone countries in Africa and the Caribbean, reaching over 160,000 people. Projects are delivered in partnership with Québec-based organisations and local actors, ensuring alignment with on-the-ground needs. Read more

Scotland is also a pioneer on loss and damage and was the first Global North government to commit funding specifically, pledging £2 million (approx. US$2.5 million) at COP26 through its Climate Justice Fund (CJF). The fund, which was launched in 2012, is rooted in principles of equity, solidarity, and human rights—acknowledging that those least responsible for the crisis often bear the greatest burdens. It supports a range of innovative programmes, including direct cash transfers for families recovering from climate disasters (implemented via GiveDirectly), community-led resilience projects co-designed with local partners, and the development of data systems for monitoring climate impacts and guiding effective responses. Read more

Barriers to subnational adaptation

Why finance fails to reach the frontline

Despite their key role and potential, the ability of subnational governments to access, mobilise, and effectively deploy adaptation funding remains deeply uneven. Globally, adaptation finance is constrained the perception of low or uncertain financial returns, limited knowledge and information, and restrictive policy and regulatory environments. At the subnational level, these barriers are often compounded by structural challenges specific to regions.

To take bold, anticipatory policy action, subnational governments will increasingly require continued investment in institutional capacity, access to robust climate data, and formal recognition of their policy making role within national adaptation frameworks.

Too often, finance tools—however well-designed—fall short when they overlook subnational realities and fail to address long-standing structural and institutional bottlenecks. Without stronger enabling conditions, even the most ambitious region will struggle to mobilise adaptation finance. These challenges are particularly pronounced in developing countries, where limited fiscal autonomy, fragmented governance, and capacity constraints—combined with complex funding procedures—continue to slow regional action.

This chapter outlines four broad categories of barriers that help explain why climate finance is still not reaching the local level at the necessary speed or scale, while also pointing to practical efforts by subnational actors and partners to begin addressing these challenges. Real-world experiences show how these barriers play out in practice, shaping the fiscal, institutional, and political realities of subnational governments (see Focus Box 2.1: Regional barriers and responses).

Focus box 2.1

Regional barriers and responses: Insights from India and Morocco

Recent analyses from India and Morocco illustrate the systemic obstacles regions face in mobilising adaptation finance, while also pointing to practical ways forward through tailored recommendations and guidance.

India. Climate Trends' report *Adaptation Now: Bridging India's Climate Resilience Financing Gap* estimates that India must invest US $14–67 billion annually through 2030 to help farmers, cities, and coastal regions adapt. Yet a major funding gap persists. States face limited revenues, borrowing restrictions, and fiscal shocks such as COVID-19. Many lack the capacity to prepare bankable projects, while weak data and inconsistent adaptation criteria further deter investment. Private finance is hesitant to support low-return projects—such as climate-resilient agriculture or coastal defence—while Multilateral Development Banks (MDB) loans remain difficult to access due to sovereign-guarantee requirements and lengthy approvals. The report calls for clearer adaptation criteria, innovative instruments, stronger fiscal devolution, and greater investment in project preparation and capacity. It urges MDBs to prioritise adaptation, allow state-level borrowing, and provide technical support, while encouraging the private sector to invest in resilience to safeguard assets and supply chains in climate-vulnerable regions. Read more

Morocco. Despite strong national progress—including a 2016 roadmap to align the Moroccan financial sector with sustainable development and a Climate Finance Strategy adopted in 2024—the country still faces climate finance needs of US$4.5 billion per year between 2025 and 2030. At the regional level, councils continue to face limited access to funds and heavy reliance on public finance. Only 25% of investments go to adaptation, despite a national target of 51%, and private participation remains low at 25–30% of total flows, compared to around 50% in other MENA peers. To address these challenges, the Association des Régions du Maroc (ARM) published a *Practical Guide on Climate Finance* to support Regional Councils in identifying finance sources and developing adaptation and mitigation projects. As part of broader institutional support, ARM, in partnership with UNDP Morocco, also organised regional workshops to integrate climate action into a new generation of Regional Development Programmes (PDRs), building on lessons from a Green Climate Fund-supported programme that enabled five pilot regions to develop Climate-Resilient Development and Adaptation Plans (PADCRs).

Strategic and institutional barriers

Institutional and policy fragmentation for adaptation

In many countries, adaptation remains institutionally fragmented and siloed. Too often framed narrowly as an environmental issue, it is left to environment departments with little influence over core budget decisions or authority to coordinate with infrastructure, health, water, or agriculture—sectors where most adaptation investment is needed. This weakens institutional ownership and prevents the integration of climate objectives into strategic investment decisions. As few actors systematically prioritize adaptation in their own budgets or mainstream it across public budget lines, leaving internal financing for adaptation limited.

Furthermore, subnational governments can lack formal mandates or recognition within national climate and finance frameworks. Where mandates do exist, they are frequently accompanied by overlapping reporting requirements and the need to align with multiple agencies and sectoral agendas. As a result, the problem is not only the absence of mandates, but also the limited authority, coherence, and capacity granted to subnational actors to effectively fulfil them. Without clear mandates, regions struggle to access national and international funds, establish dedicated financial mechanisms, embed climate into sectoral budgets, or participate in NAPs and NDCs.

Weak vertical integration between national, regional, and local levels—especially among environment, economic development, planning, and finance departments—undermines coherent adaptation strategies and funding access. This results in many regional governments lacking coherent investment cycles or climate-responsive budgeting systems, competing policy objectives across sectors or levels of government create additional tensions, making it difficult to prioritise long-term resilience over short-term economic or political considerations.

Emerging initiatives at global, national, and state levels illustrate how some of these coordination gaps are beginning to be addressed (see *Focus Box 2.2*).

Focus box 2.2

Country Platforms and Multilevel Coordination

Country platforms are gaining momentum as structured mechanisms to align national strategies, international finance, and subnational priorities. They are framed differently by global initiatives, but share a common aim: bridging national frameworks with local realities.

CHAMP – Embedding Multilevel Governance

The Coalition for High Ambition Multilevel Partnerships (CHAMP), launched at COP28, brings together more than 70 countries to institutionalise multilevel governance in NDCs and NAPs. Its 2025 report highlights coordination frameworks and financial techniques that national governments can adopt to strengthen subnational climate finance. One recommendation is to create country-led platforms that act as coordination vehicles among government entities (national and subnational), development partners, and the private sector. These platforms can provide regions and cities with access to national technical expertise, climate-smart technologies, and financing instruments, while creating visibility for bankable projects CHAMP 2025. Read more

Focus box 2.2 (continued)

Country Platforms and Multilevel Coordination

CCFLA – Strengthening Finance Architecture

The Cities Climate Finance Leadership Alliance (CCFLA) highlights the potential of subnational-inclusive country platforms that systematically integrate local priorities into the design, governance, and financing of national strategies. To realise their full potential, CCFLA stresses that platforms must embed cities and regions across the entire cycle — from planning and pipeline development to financing and implementation — while building robust project pipelines, risk-sharing mechanisms, and financing structures that match subnational investment needs. Read more

FONERWA – A National Platform in Practice

Rwanda's National Environment and Climate Change Fund (FONERWA), is a functioning example of a national structured, multilevel financing platform. Local governments can submit project proposals aligned with national priorities, with technical assistance and funding support provided centrally. By bridging national frameworks with local needs, FONERWA enhances coherence and improves subnational access to adaptation resources. (FONERWA, 2021).

COCLIMA Guanajuato – Applying Principle at State level

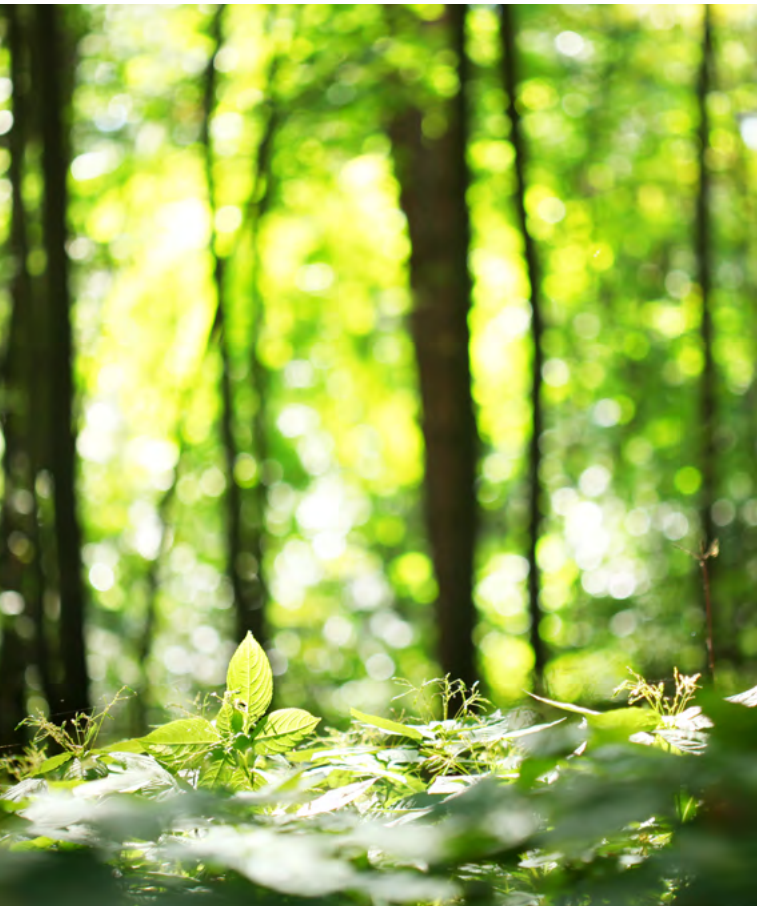
While country platforms are typically national, similar principles can be applied at state level. In Mexico, Guanajuato has established the Intersecretariat Climate Change Commission (COCLIMA) under its State Climate Change Law to coordinate 13 agencies and entities of the state executive. COCLIMA drives cross-cutting mitigation and adaptation actions and has already overseen the update of the state climate law, the creation of a State Climate Change Program, and the development of an adaptation roadmap for the NDC. This demonstrates how subnational governments can create integrated platforms that mirror national coordination functions.

Access and distribution gap

Limited access to available finance

Despite being closest to impacts, adaptation finance remains highly centralised. Many subnational governments are unable to apply directly to major international climate funds or are excluded from eligibility due to sovereign lending. Application processes are often mediated through national ministries, which may set priorities or criteria that do not reflect regional realities. In addition, disbursement procedures are frequently slow and administratively complex, creating further delays for local implementation. This centralisation is reinforced by the financing practices of development finance institutions and climate funds, which typically engage with national governments as sovereign guarantors of subnational infrastructure projects. While this approach helps reduce risk for financiers, it entrenches dependence on national priorities and limits the ability of regional governments to access resources directly for locally tailored adaptation.

This often leads to a mismatch between places with high climate risk and funding allocation: many high-risk regions—especially in developing countries—receive limited support, while more creditworthy or politically visible areas are better positioned to attract funding.



Even in countries with climate fiscal frameworks, fund allocations often overlook distributional effects, region-specific vulnerabilities or lack performance-linked criteria. This raises broader questions of justice and fairness, as those communities and territories most exposed to climate impacts are often the least resourced to respond, reinforcing existing inequalities and leaving adaptation finance misaligned with principles of equity and need. Fiscal systems could provide opportunities to redress these imbalances (see *Focus box 2.3*).

Focus box 2.3

Fiscal innovations to rebalance access and distribution

Access to adaptation finance is often centralised and inequitable, but fiscal systems can be adapted to distribute public resources in ways more consistent with resilience needs. Experiences from Brazil and India illustrate opportunities to integrate environmental or vulnerability criteria into allocation formulas.

Brazil – Ecological Fiscal Transfers (EFTs)

Since 1991, **Paraná**'s *ICMS Ecológico* has redistributed state tax revenues to municipalities based on environmental indicators, particularly the protection of forests and water sources. Today, 17 Brazilian states operate EFT schemes, which have channelled billions of reais to local governments. In 2024 alone, Paraná directed R$635 million to 278 municipalities, supporting over 4 million hectares of protected areas.

India – Fiscal devolution and climate opportunity

India allocates 42% of central tax revenues to states through a formula that already considers income and vulnerability indices. This creates a potential opportunity to more explicitly connect fiscal devolution with climate risk, ensuring that highly exposed states—such as those in coastal, Himalayan, and drought-prone areas—are better resourced to invest in resilience within existing fiscal constraints.

Financial and market barriers

Public good and revenue limitations

Adaptation investments often deliver broad public goods—such as flood protection, early warning systems, and ecosystem restoration—that generate diffuse social benefits but limited direct revenue. These characteristics are rarely acknowledged in financing models, governments and development banks tend to underinvest or place unrealistic expectations on private mobilisation.

Lack of tailored instruments and risk-sharing mechanisms

Climate finance instruments are rarely adapted to the risk profiles or scale of subnational investments. High ticket sizes, stringent fiduciary requirements, and elevated transaction costs make them inaccessible for many regions.

Creditworthiness, fiscal autonomy, and eligibility barriers

Even when they are eligible for funding, many subnational governments face legal, institutional, or technical barriers to accessing capital markets. Weak credit ratings, limited own-source revenues, and rigid fiscal rules constrain the fiscal autonomy of many subnational governments. Borrowing restrictions and debt ceilings often prevent them from raising funds for adaptation, even when climate needs are urgent. And where borrowing is permitted, few regions have the financial systems or guarantees. Even when borrowing is permitted, few regions have the financial systems or guarantees needed to attract multilateral development banks or private investors.

Capacity and information barriers

Weak project development capacity

Subnational governments, notably in developing regions can lack the technical expertise required to develop investment-ready adaptation projects. Project design often requires specialized expertise in investment-focused climate risk modelling, economic and financial appraisal, safeguards compliance, and results-based frameworks, skills that are often lacking or fragmented across agencies. Without adequate support throughout the whole project development cycle, viable adaptation ideas often fail to mature into investment-ready proposals.

Even when early-stage support is available, adaptation projects frequently stall during feasibility studies, structuring, and transaction stages, where technical assistance and concessional support are typically concentrated on mitigation projects. Weak financial literacy and management capacity compound these challenges: many regional authorities lack the training to meet fiduciary standards, manage debt, or produce the transparent reporting demanded by donors and investors. This leaves many promising adaptation initiatives unable to cross the critical threshold into bankable investments.

Dedicated project preparation facilities could help address these barriers, but existing initiatives—such as the Global Climate City Challenge / GAP Fund, the Transformative Actions Program (TAP), or the Technical Assistance Facility (TAF)—have limited reach and are rarely tailored to adaptation or to the realities of subnational institutions. Europe has begun to respond with more systematic initiatives, yet these remain early steps compared to the scale of the challenge (see *Focus Box 2.4: Tackling adaptation finance barriers in Europe*).

Focus box 2.4

Tackling adaptation finance barriers in Europe

In the EU, climate change adaptation costs up to the 2030s are estimated at €15–64 billion annually, equal to 0.1–0.4% of EU GDP (World Bank, 2024), yet financing remains far below this level. Scaling up public, private, and blended finance is therefore essential. Two EU-funded initiatives illustrate how this is being approached in practice.

Pathways2Resilience (P2R).

As part of the EU Mission on Adaptation to Climate Change, P2R helps regions develop investment-ready adaptation plans — with Regions4 as a core partner. It currently provides direct support to 39 regional governments, with 61 more soon to join. Through training, mentoring, and expert guidance, P2R supports Regional Resilience Journeys while addressing the financial barriers that often stall implementation. Its Adaptation Investment Cycle helps regions move from risk diagnosis to project pipelines, supported by catalogues of funding instruments. With €21 million in sub-grants, P2R enables regions to move from plans to practice and build long-term resilience. Read more

CLIMATEFIT

This Horizon Europe project focuses on innovative financing mechanisms for adaptation. It has produced 20 international best practices in adaptation finance, alongside an Adaptation Investment Landscape and decision-support tools to guide local planners. The initiative is also strengthening adaptation finance capacities in 20 cities, municipalities, and regions across eight countries through a four-level training program—from awareness raising to investment planning and tailored solutions in four leader territories. At the local level, Local Resilience Taskforces (LRTs) bring public and private actors together to design context-specific investment strategies that can be scaled and replicated in other regions. Read more

Data and monitoring gaps

Effective adaptation requires reliable data—not only on climate risks and vulnerabilities, but also on the results of implemented actions. Under the Global Goal on Adaptation, both risk assessment and monitoring and evaluation (M&E) are recognised as integral parts of the adaptation policy cycle, alongside planning and implementation. Yet in practice, these functions—particularly M&E—are often overlooked, leaving gaps in understanding effectiveness and limiting the ability to inform future investments. Adaptation criteria and classifications are also inconsistent across countries and sectors, making it difficult to track projects reliably or ensure accountability.

Many subnational governments face persistent information gaps, including limited access to downscaled climate data — or reliance on datasets derived from global models that are not always validated for local contexts and may fail to capture region-specific realities. Evidence on the effectiveness of adaptation measures is scarce, with few public records documenting their implementation. These gaps are further exacerbated in contexts with widespread informal living and working conditions, where vulnerabilities are often underreported or difficult to capture. This makes it challenging to accurately assess exposure, design targeted adaptation measures, and allocate resources where they are most needed.

M&E systems, particularly ex-post analysis, are often weak or underdeveloped, relying on generic or process-based indicators rather than displaying measurable outcomes. This is compounded by uncertainty on performance under future climate change. A global review of urban adaptation plans found that while many cities aim to track progress, most lack harmonised frameworks and technical capacity, reducing their ability to measure results or attract performance-based finance (Goonesekera & Olazabal, 2022). Without stronger M&E systems and harmonized M&E frameworks, regions struggle to demonstrate impact, secure funding, or adaptively improve their strategies over time.

Financing adaptation

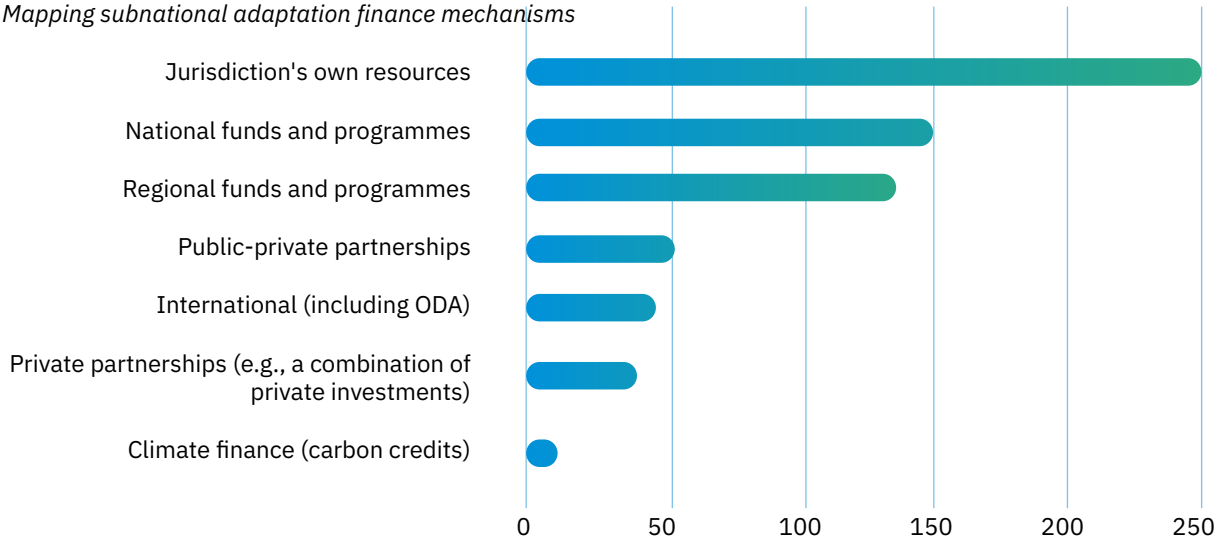
How subnational governments are mobilising resources today

Subnational governments are already innovating to fund adaptation, while also developing financial mechanisms primarily aimed at mitigation that carry important synergies or co-benefits for resilience and adaptation. In many cases, they are also creating broader financing tools which, although not designed exclusively for adaptation, can be leveraged to support adaptation priorities. These efforts reflect a growing capacity to navigate constraints and tailor financing strategies to local needs.

Data from the CDP States and Regions 2023 Disclosure Cycle, based on self-reported inputs from 109 subnational governments, provides insights into the sources and instruments used to fund and finance adaptation projects. As shown in Figure 3, the most common sources include self-financing, national government funding, and regional/state funding.

These can be grouped into five broader categories of adaptation finance available to subnational actors, which are explored in the following sections of this chapter. While not mutually exclusive, each category is associated with a set of financial instruments that subnational governments can draw upon to mobilise resources for adaptation.

Figure 3: *Mapping subnational adaptation finance mechanisms*



Source: Own elaboration using CDP 2023 data

CDP data is self-reported and varies in level of detail, and in many cases adaptation and mitigation spending cannot be fully separated. The figures should therefore be interpreted as indicative trends rather than precise totals. Nonetheless, CDP remains the only global dataset that provides comparable insights into subnational adaptation finance.

Domestic public finance: The value of self-financing and fiscal transfers

Because of the heavy public good characteristics and limited revenues, public finance remains the backbone of subnational adaptation, providing resources to build long-term resilience. A growing number of regional governments are using public finance to not only fund infrastructure, but to mainstream climate resilience into service delivery, land management, and institutional planning. Domestic budgets are likely to be the largest source of funds for adaptation in many developing countries (UNEP, 2023)—making it even more important that subnational governments are empowered and equipped to mobilise and manage these resources effectively. At the same time, these budgets are bound to be insufficient to meet the scale of adaptation needs, reinforcing the urgency of leveraging complementary sources of funding and finance.

Main sources

National transfers are resources which are redistributed from national sources (governments, bank or agencies)

Own-source revenue, including environmental taxes or fees collected at the local or regional level. In particular:

- **Taxes and fees** offer subnational governments a tool to internalise environmental costs, promote sustainable practices and fund activities.
- **Environmental fines** are regulatory instruments imposed on individuals or entities that breach environmental laws or standards.
- **Cap and Trade** is a market-based mechanism where governments cap emissions and issue tradable allowances. Revenues from allowance auctions are public funds that can be directed to climate and environmental programmes.

Main delivery mechanisms

- **Mainstreaming climate adaptation** into public finance integrates climate considerations into planning, budgeting, and expenditure systems, ensuring that adaptation is systematically embedded in decision-making.
- **Earmarked climate funds (hypothecation)**, where dedicated public funds are set aside to finance adaptation, typically sourced from taxes, fees, or carbon auction revenues.
- **Payment for ecosystem services (PES)**, where landowners or communities are compensated for managing ecosystems in ways that provide climate resilience benefits.

International support: The role of bilateral, multilateral and EU funding

International partners represent a key source of climate finance, especially in low- and middle-income regions where fiscal space is limited. While some of this support is delivered through broader development aid frameworks, funding should only be classified as adaptation finance if it is explicitly intended to strengthen resilience to climate risks.

While traditionally channelled through national governments or accredited intermediaries, subnational entities are increasingly looking at accessing these resources through decentralised programming, direct access modalities, and collaboration in regional networks. This growing recognition of local adaptation capacity is opening new avenues for co-financing, piloting innovative projects, and scaling community-based resilience. However, navigating the complex eligibility requirements, accreditation processes, and reporting demands remains a significant challenge for many subnational governments.

Moreover, most bilateral and multilateral funding still prioritises mitigation and is delivered as loans rather than grants, leaving a gap for socially targeted and locally led adaptation (CPI, 2024; UNEP, 2024). Expanding subnational access will require targeted reforms, including simplified application procedures, broader eligibility, better metrics, and better alignment with local planning systems.

Main sources

- **Multilateral Development Banks (e.g. World Bank, AfDB, ADB, IDB, EIB),** primarily through concessional loans for infrastructure and policy reform.
- **Bilateral donors (e.g. GIZ, AFD, KOICA, FCDO),** who are key providers of adaptation grants, often through technical cooperation.
- **International climate funds (e.g. Green Climate Fund, Adaptation Fund, GEF, CIF).** Although their total commitments are smaller than other providers, they play a key role by providing finance primarily as grants. which offer mostly grants through accredited agencies.

Main delivery mechanisms

- **Project-based funding:** Grants or concessional loans for specific adaptation initiatives, often accessed via donor programming or competitive calls for proposals.
- **Climate readiness and technical assistance:** Support for institutional and technical capacity-building on planning, project pipeline development, and fiduciary standards — often a prerequisite for larger funding access.
- **Pooled multilateral funds:** Large funds that can support larger and longer-term programmes, often combining project finance with technical assistance and policy support, often with thematic or regional focus
- **REDD+ (Reducing Emissions from Deforestation and Forest Degradation):** An international mechanism under the UNFCCC supporting forest conservation in low-income countries, mostly through national programmes but with some subnational involvement.

Main instruments

- **Grants:** Non repayable funds.
- **Concessional loans:** Loans offered at below-market interest rates or with favourable conditions.
- Debt instruments continue to dominate over grants and risk mitigation tools in the lending portfolios of development finance institutions.

Private sector engagement: Complementary roles in resilience investment

The private sector remains a largely untapped but critical partner in financing climate adaptation. Mobilizing private capital is essential to close the adaptation finance gap, particularly for infrastructure and nature-based solutions that require large-scale investment. One increasingly used approach is blended finance — combining public or philanthropic capital with private investment to reduce risk and improve financial returns for private actors. It is important to recognise that the private sector is highly diverse, contributing not only through funding and financing but also through project design, technology, and delivery of adaptation solutions.

When well-structured, private finance can directly support local adaptation priorities—scaling and accelerating action at the regional and municipal levels. Subnational governments play a key role in attracting and shaping this investment. (see *Focus Box 3.1)*

Main sources

- **Commercial financial institutions can scale finance through loans,** bonds, and risk-transfer instruments.
- **Corporations,** especially in sectors like agriculture, energy, water, and real estate, can invest directly in climate-resilient assets and supply chains.
- **Small and medium-sized enterprises (SMEs)** offer direct innovation and local delivery capacity supporting the development of new products and services for adaptation.
- **Households also play a role,** by co-financing infrastructure through utility payments, investing in resilience upgrades, or channelling savings and remittances into adaptation needs.

Main delivery mechanisms

- **Green banks:** Institutions that use concessional or catalytic capital to attract private investment into climate projects. They can play a facilitation role for adaptation by offering credit enhancements, co-investments, or guarantees that lower the risk profile of projects.
- **Blended finance:** The use of concessional public or philanthropic funds to attract additional private investment by de-risking climate adaptation projects. It allows organisations with different objectives to invest alongside each other while meeting their respective goals (whether financial return, social impact, or a blend of both). While it has been widely promoted in developing countries, blended finance for adaptation is still at an early stage, with scope to evolve and be more effectively designed to unlock larger and more sustainable flows in the future.
- **Public-private partnerships (PPPs):** Long-term contractual arrangements where public and private actors share investment, risks, and responsibilities to deliver infrastructure or services.
- **Green bonds:** Debt securities issued to raise capital for projects with verified environmental or climate benefits, increasingly used to finance urban adaptation infrastructure.
- **Insurance products:** Risk transfer mechanisms that protect households, businesses, and governments against climate-related losses. Insurance instruments—from crop and property insurance to parametric products—reduce vulnerability and can incentivise investments in resilience, while also mobilising private capital into adaptation-related services.

Focus box 3.1

Leveraging private investments for adaptation

Subnational governments play a pivotal role in incentivising private sector investment in climate adaptation. They encourage businesses to adapt directly to climate risks through awareness-raising, as well as by deploying incentives, subsidies, or regulatory measures. They can also create the conditions for private investment by outlining the role they expect the private sector to play in contributing to local adaptation, developing bankable, investment-ready projects and offering co-financing or guarantees to reduce risk. Importantly, subnational governments shape the enabling environment — through regulations, procurement processes, and planning frameworks — that determines whether private actors can engage with confidence and at scale.

Several RegionsAdapt members are advancing this enabling role through innovative approaches:

- **Paraná, Brazil:** *Banco Verde* is a digital platform launched in 2025 connecting companies and investors with environmental projects, aiming to mobilise up to R$100 million annually. The state also runs *Selo Clima*, which engages private companies through recognition and reporting schemes, encouraging investment in emissions reduction and ecosystem protection.
- **Scotland, UK**: The *Facility for Investment Ready Nature in Scotland (FIRNS)* helps local organisations develop bankable nature-based projects by addressing key barriers like revenue uncertainty and limited pipelines. Grants of up to £240,000 help prepare projects for responsible private investment.
- **Catalonia, Spain:** In 2025, the European Investment Bank granted a €100 million loan to the Catalan Finance Institute to help SMEs invest in energy efficiency, renewables, and low-carbon innovation. This builds on the region's Action Green programme, which had earlier combined R&D grants and subsidised loans to support private investment.

- **Cross River State, Nigeria**: In partnership with Nigeria's SME agency (SMEDAN, Cross River launched a ₦1 billion Matching Fund to support MSMEs with training, business support, and affordable finance. Though not strictly climate-focused, it targets women and youth in climate-vulnerable sectors like agriculture, strengthening local resilience and economic inclusion.
- **Lombardy, Italy**: A 2024 pilot supported seven SMEs in assessing sustainability performance and improving access to green finance, co-designing 26 actions and fostering dialogue between firms, government, and financiers.
- **Québec, Canada**: Through *Origo* and *Technoclimat*, Québec de-risks early-stage clean tech, unlocking over CA$5 million in private investment in 2024 alone from just CA$1.1 million in public support.

Philanthropy: Flexible finance for innovation and equity

Philanthropic organisations—including foundations, charities, NGOs, and civil society networks—are increasingly stepping in to address financing gaps in climate adaptation. While small in volume compared to public and private sources, philanthropic finance offers flexible, early-stage, and risk-tolerant support that can be catalytic, supporting innovation and inclusion where other sources fall short.

Philanthropy often supports pilot projects, community-led adaptation, technical assistance, and the development of new financing models. Because it is less constrained by political cycles or rigid eligibility rules, philanthropic finance can serve as a bridge for larger-scale investments from multilateral or private sector.

Main sources

Most philanthropic support to date has targeted urban settings, often through city networks or civil society organisations. However, support for regional and territorial adaptation is a **growing area of interest**, with some actors beginning to direct resources toward subnational governments and regional initiatives.

- **ClimateWorks Foundation:** Global philanthropy network coordinating the Adaptation and Resilience Fund (*see Focus Box 3.2*) to scale locally led adaptation.
- **European Climate Foundation:** Europe's leading philanthropy supporting policy, advocacy and resilience within EU and national frameworks.
- **Bloomberg Philanthropies:** Funds clean energy, city networks, and data initiatives, with strong support for urban climate resilience.
- **IKEA Foundation:** Funds "Just Transition Plans" co-created with community voices and supporting the tracking subnational climate action.
- **Other key philanthropies** contributing directly or indirectly to adaptation and resilience finance, though not necessarily at the subnational level—include the **Gates Foundation, the Rockefeller Foundation,** whose earlier initiatives helped pioneer resilience finance; and the **Bezos Earth Fund**, with a US $10 billion commitment to climate action**.**

Main delivery mechanisms

- **Foundation grants:** Non-repayable funds to support adaptation actions such as pilot projects, institutional capacity-building, or community resilience. Grants may be able to fund part or all of an adaptation project, reducing the cost and/or increasing the financial viability. Grants can also be provided early in the project cycle or business development stages, e.g., for research and development, to address early-stage barriers and demonstrate viability.
- **Blended finance contributions:** Philanthropic capital can be used as a first-loss layer or risk cushion to attract private or public co-investment in adaptation. While less common at the subnational level, such instruments are emerging—for example in funds focused on nature-based solutions or SME resilience.
- **Challenge funds & innovation calls:** Competitive grant mechanisms that reward innovative or high-impact adaptation solutions. Subnational governments can access these by partnering with NGOs, research institutions, or private actors.

Focus box 3.2

Adaptation and Resilience Fund

Launched in 2024, the A&R Fund channels over US $50 million from a coalition of philanthropies into locally led adaptation. Coordinated by the ClimateWorks Foundation with the Howden, Laudes, Quadrature, and Rockefeller Foundations, it supports vulnerable communities in South and Southeast Asia and sub-Saharan Africa. Grants finance projects from early-warning systems to innovative financial tools, aiming to strengthen livelihoods and climate resilience while addressing the chronic underfunding of adaptation. The Fund also demonstrates that investments in resilience can generate returns of US$2–42 for every dollar spent.

Innovative finance: Piloting market-based and nature-linked finance

Innovative finance instruments are emerging to fill persistent gaps in adaptation funding, particularly in areas where traditional mechanisms fall short. These tools aim to generate new revenue streams or redirect financial flows toward climate and nature priorities. Many are based on the principle that those responsible for or benefiting from environmental impacts should also contribute to adaptation solutions.

For regions, these tools offer an opportunity to align financial innovation with environmental integrity — particularly when paired with transparency, accountability, and local benefit-sharing. Global repositories such as the Pathways2Resilience Finance Catalogues, the NAP Global Network's Inventory of Innovative Financing Instruments, and UNDP's BIOFIN Finance Solutions Catalogue now compile examples of mechanisms relevant to regional and ecosystem-based adaptation.

Although many of these mechanisms are still at a pilot stage and more common at national or urban levels, regional governments are increasingly taking leadership roles in deploying nature-linked instruments for adaptation. These tools, ranging from biodiversity credits and PES to voluntary carbon markets, allow subnational actors to monetise ecosystem services that directly contribute to climate resilience.

Examples of innovative instruments:

- **Voluntary Carbon Offset programme:** Voluntary carbon market are a driver of financial innovation, generating revenue through the sale of emissions reduction credits. Subnational government can support by enabling monitoring infrastructure, local coordination, and technical capacity. Verification is ensured by third-party standards such as Verra and Gold Standard.
- **Biodiversity credits:** Similar in structure to carbon credits, biodiversity credit schemes assign financial value to biodiversity outcomes such as habitat restoration, species protection, or water retention. While less standardised than carbon markets, these voluntary mechanisms are gaining traction and offer complementary benefits, especially when integrated with carbon or forest-based approaches.
- **Resilience Bonds:** Debt instruments that finance projects reducing climate risks by linking borrowing with insurance modelling. They include standard green bonds labelled for resilience, as well as innovative models where insurance rebates or savings from reduced risk are used to repay the principal.
- **Risk transfer:** Mechanisms such as insurance products and catastrophe bonds that shift climate and disaster risks from governments or communities to financial markets. While referenced earlier, they remain nascent in the adaptation space and are therefore also considered innovative instruments.
- **Debt-for-climate or debt-for-nature swaps:** Agreements where a portion of a country's or region's external debt is forgiven in exchange for investments in climate adaptation or biodiversity protection. Although most debt-for-climate swaps occur at the national level the model holds promise for subnational replication to create fiscal space for climate action and conservation, where legal frameworks permit and it can be managed without adverse impacts. However, some lenders remain cautious, as swaps may be perceived as a form of default, which can affect credit ratings and future access to finance.

Regions in Action

Real-world experiences in financing adaptation

Across the world, subnational governments are not waiting on the sidelines. They are leading innovation, mobilising diverse resources, and shaping context-driven solutions to build resilience. RegionsAdapt members are applying tools such as green budgeting, fiscal transfers, private sector partnerships, and just resilience models, while strengthening the institutional and policy frameworks needed to ensure adaptation finance reaches the frontline. This chapter showcases these approaches, highlighting how regions are already activating finance in practice.

Finance Instruments and Mechanisms

How regions are mobilising resources through carbon pricing, green funds, blended finance, biodiversity credits, and payment for ecosystem services.

CARBON MARKET

Québec turning carbon revenues into resilience

Québec has developed one of the most advanced subnational climate finance frameworks in the world, rooted in the polluter-pay principle. Initially launched as a fuel surcharge, the province transitioned in 2013 to a cap-and-trade system (SPEDE), linked with California, to put a price on carbon and generate dedicated climate revenue. Since 2013, this market-based mechanism has generated over CA$10 billion (approx. US$7.2 billion) in revenue, all reinvested through the Electrification and Climate Change Fund (ECCF) to support climate mitigation, adaptation, and international cooperation.

More than CA$400 million (approx. US$290 million) has been allocated to local governments since 2021 to finance adaptation plans, infrastructure upgrades, and resilience measures. An additional CA$400 million was announced in 2025 to accelerate local climate action for the next five years.

This funding supports a wide range of initiatives, including industrial decarbonisation, resilience-focused R&D, clean technology deployment, just transition programmes, and public-sector adaptation investments such as low-carbon transport and sustainable land use.

Québec also supports global solidarity by channelling part of its carbon revenue into the International Climate Cooperation Programme. This award-winning initiative funds adaptation and mitigation projects in vulnerable Francophone countries. To date, 65 projects have been supported across Africa and the Caribbean.

READ MORE

REGIONAL CLIMATE FUND AND CREDITS

Catalonia earmarking revenues for a regional climate fund

Catalonia is building one of the most comprehensive subnational climate finance frameworks in Europe. At its core is the Fons Climàtic, established under the 2017 Climate Change Law and operational since 2021. Financed through earmarked green taxes—including levies on vehicle emissions, industrial pollution, and cruise ships—the fund has already allocated over €500 million to mitigation, adaptation project in 81 projects. The fund supports a wide range of actors—from municipalities and research centres to SMEs and environmental organisations—facilitating projects that would otherwise struggle to attract funding.

To complement public investment, Catalonia launched a Climate Credits system in 2023 to tap into voluntary carbon markets. Unlike traditional offsets, these credits value multiple ecosystem services—carbon, water, biodiversity, and wildfire reduction—with an initial focus on forests. A pilot under LIFE Climark improved management on 450 ha, expecting 14,500 tCO_2 sequestered and stronger water and ecosystem resilience.

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BLENDED FINANCE

São Paulo mobilising capital for climate resilience

In June 2024, São Paulo launched Finaclima-SP, a pioneering blended finance mechanism designed to accelerate ecosystem restoration and climate adaptation efforts. Developed with support from FAPESP-funded BIOTA Synthesis research, this initiative combines public, private, philanthropic, and multilateral funding to overcome financial barriers that typically hinder large-scale restoration projects. By integrating diverse capital sources, Finaclima-SP aims to reduce investment risks and attract private sector participation in long-term environmental initiatives. This approach supports the state's Climate Action Plan (PAC) and the State Plan for Climate Adaptation and Resilience (PEARC), targeting the restoration of 1.5 million hectares of degraded land. The program also introduces a governance model involving public agencies, civil society, and market actors to ensure transparency and effective resource management.

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DEVELOPMENT BANK

Minas Gerais scaling climate action through its subnational development bank

For over a decade, the state of Minas Gerais has demonstrated how subnational development banks can mobilise international climate finance at scale. Through its development bank Banco de Desenvolvimento de Minas Gerais (BDMG), the state has raised more than US$400 million in partnerships with the European Investment Bank, the Asian Infrastructure Investment Bank, the New Development Bank, and the Inter-American Development Bank. In parallel, BDMG has financed more than R$1.6 billion in climate-related projects across renewable energy, resilient infrastructure, and sustainable agriculture.

BDMG combines concessional finance with technical assistance, providing municipalities and green SMEs with tailored credit lines, including support from AFD and UK PACT. It was the first Brazilian public bank to issue sustainable bonds (2020) and has since created a Climate Fund to channel finance into environmental and social projects. In 2025, at least 45% of its disbursements were aligned with the SDGs.

By embedding climate criteria into its operations and linking local actors with international finance, Minas Gerais shows how subnational development banks can scale adaptation and resilience while crowding in private and multilateral investment.

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BIODIVERSITY CREDITS

Paraná pioneers the first subnational experience

In October 2024, Paraná became the first subnational government in the world to adopt a public policy on biodiversity credits. These credits are financial incentives generated from conservation and restoration projects, aimed at valuing ecosystem services and mobilising new sources of nature finance. The state's model certifies measurable conservation outcomes from private landowners, especially those managing Private Natural Heritage Reserves (RPPNs), with independently verified credits sold to buyers such as the regional development bank BRDE. By funding ecosystem restoration, the policy directly supports climate adaptation through flood prevention, water protection, and landscape resilience.

In 2025, a two-year pilot project was launched by SEDEST and BRDE, backed by R$ 2 million (USD 400,000) from BRDE's Green Fund to purchase biodiversity credits from 20 selected landowners. Credits are priced at USD 5–7.50 each, with potential payouts of up to USD 12,000 per property in year one, rising to USD 18,000 in year two for full compliance. This structured, state-funded initiative promotes transparency, co-benefits, and alignment with national and international environmental commitments.

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PAYMENT OF ECOSYSTEM SERVICES

Rio de Janeiro linking conservation with rural livelihoods

Created in 2011, the *Programa Estadual de Pagamento por Serviços Ambientais (PRO-PSA)* channels finance into water resource protection, biodiversity conservation, and climate resilience. To date, more than BRL 44 million have supported 12 projects across 22 municipalities, benefiting over 400 rural producers, restoring degraded land, conserving forest remnants, and promoting integrated crop–livestock–forest systems.

A flagship initiative is the *Projeto Conexão Mata Atlântica (2017–2024)*, co-financed by the Global Environment Facility and implemented with the Inter-American Development Bank in partnership with the state governments of Rio de Janeiro, São Paulo, and Minas Gerais. In Rio de Janeiro, BRL 7.75 million were directed to 288 producers, conserving and restoring 2,680 hectares through agroforestry, silvopastoral systems, and other sustainable practices. By tying payments to innovations such as solar energy, pasture recovery, and rural infrastructure, the programme demonstrates how ecosystem-based adaptation finance can strengthen both resilience and local livelihoods.

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REDD+

Pastaza and Zamora Chinchipe advancing inclusive and just climate finance

In Ecuador's Amazon, the provinces of Pastaza and Zamora Chinchipe are leveraging subnational REDD+ mechanisms to channel climate finance towards social justice, biodiversity protection, and inclusive governance.

Pastaza has pioneered the country's first subnational REDD+ implementation plan (PdI REDD+, co-developed with seven Indigenous nationalities, with support from the Governors' Climate and Forests (GCF) Task Force and funding from the Norwegian government. The plan channels international funding into agroecology, ecosystem conservation, and intergenerational forest governance—anchoring climate action in indigenous leadership and ancestral knowledge.

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Zamora Chinchipe integrates a Gender Action Plan (GAP) into its REDD+ plan Sembrando Vida. Co-designed with Indigenous women and local organisations, it supports leadership training, land access, and sustainable livelihoods, while embedding gender-responsive metrics and inclusive governance through the Provincial Climate and Forests Board. By institutionalising gender equity in REDD+ governance, the province is allowing climate finance to advance a green transition that is both environmentally effective and socially just.

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Enabling conditions and governance foundations

How regions are embedding adaptation into laws, budgets, institutions, and project pipelines.

MAINSTREAMING ADAPTATION

Andalusia embedding climate across governance

Andalusia is positioning itself as a frontrunner in mainstreaming adaptation by embedding climate criteria across its regional governance and finance systems. Anchored in its Climate Change Law (2018) and the Andalusian Climate Action Plan, the region has developed a comprehensive approach to climate-responsive budgeting, aligned with international standards such as the OECD Green Budgeting Framework and the EU Taxonomy.

This system assesses the climate impact of both planned and actual expenditures, categorising them by relevance to mitigation, adaptation, and public engagement. In 2023, over €1.17 billion (2.62% of the regional budget) was identified as climate relevant. More than 30 departments now apply this methodology, supported by annual reports, staff training, and internal guidance.

Beyond budgeting, Andalusia has advanced institutional reforms—investing in capacity-building, administrative simplification, and interdepartmental cooperation—that embed adaptation criteria into core budget cycles. This integrated approach makes climate resilience a cross-government responsibility, strengthening transparency and accountability and ensuring adaptation priorities are reflected in fiscal policy.

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DEVOLVED FINANCE

Kenya's FLLoCA institutionalising county-level climate finance

Kenya has pioneered a nationally structured mechanism for subnational climate finance through the Financing Locally-Led Climate Action (FLLoCA) programme, now scaled to all 47 counties. Through a blend of direct finance and capacity-building, counties receive support to establish legal and institutional frameworks, conduct participatory climate risk assessments, and design evidence-based County Climate Change Action Plans (CCCAPs). One condition to access full funding requires counties to allocate at least 1.5% of their development budgets to climate action—some now invest up to 4%, showcasing strong internal resource mobilisation. To date, counties have received over USD 82 million in investment grants, while contributing USD 24 million in co-financing from their own budgets.

At the heart of this system lies the County Climate Change Fund (CCCF), the main basket mechanism for devolved climate finance, backed by the World Bank and bilateral partners (Sweden, Denmark, the Netherlands, Germany). The governance model centres local communities in decision-making for adaptation investments, embedding equity and ownership in Kenya's climate resilience architecture.

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INTER-MUNICIPAL COORDINATION

Gauteng aligning municipalities for international finance

In South Africa, the Resilient Kaalspruit Catchment Programme demonstrates how subnational governments can mobilise and coordinate climate finance to address pressing adaptation needs. Led by the Gauteng Department of Environment and supported by the World Bank's Cities Support Programme, the initiative brings together three metropolitan municipalities—Johannesburg, Tshwane, and Ekurhuleni—to jointly secure and deploy funding for resilience in a climate-vulnerable catchment.

With Kaalspruit facing intensified flood risks due to rapid urbanisation, informal settlements, and environmental degradation, local authorities are channelling international funding into both structural and nature-based interventions. These include culvert repairs, wetland restoration, invasive species removal, and flood early warning systems—all designed to reduce vulnerability and enhance ecosystem services.

Gauteng's role in coordinating inter-municipal collaboration and stakeholder engagement is helping to align public investment with local priorities. The programme serves as a model for how subnational actors can leverage multilevel partnerships to deliver integrated adaptation on the ground.

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DATA-DRIVEN INVESTMENT

Basque Country using evidence to prioritise adaptation finance

The Basque Country has adopted a data-driven approach to adaptation, prioritising strategic investment based on projected risks and economic impacts. Through the KOSTAEGOKI Project (2019-2021)—the first regional climate risk assessment in Spain to include a socioeconomic dimension—the government estimated that without action, coastal flooding could impact 2,700 hectares, with potential losses of €2 billion in residential and industrial assets and €3.2 billion in tourism revenue. Work is currently underway on governance mechanisms that will enable inter-institutional collaboration to obtain external funding. Of note is the KAIA working group, set up to seek funding for improving climate resilience in the Basque Country. It was created as an inter-institutional and multi-sectoral committee with the mission of defining, prioritising, coordinating and leading the development of policies, strategies and actions in the field of climate change adaptation throughout the Autonomous Community of the Basque Country (CAPV).

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The Way Forward

Strategic recommendations to accelerate subnational climate finance

Adaptation finance is not keeping pace with escalating climate risks, even as subnational governments continue to demonstrate strong leadership. Closing the finance gap requires combined action, with regions strengthening mandates and project pipelines, while partners and financial institutions enable direct, supportive fiscal frameworks. This chapter sets out key recommendations and enabling conditions to turn commitments into finance, and finance into resilience. Regions are ready. The time to deliver is now.

Enabling adaptation from within: Strengthening mandates, tools, and investment pipelines

Recommendations for subnational governments

Develop subnational investment plans and bankable projects

The most immediate priority for subnational governments is to move from vision to investment. A structured approach to project preparation—from climate diagnostics to finance-ready project pipelines—ensures that adaptation priorities can attract funding and maximise the role of other actors including companies, businesses and financial institutions. This includes identifying needs, designing project concepts, and aligning with funder requirements. Clear investment plans aligned with NAPs and NDCs strengthen coherence and should be explicitly recognised by national and international funds as eligible for direct support, so well-prepared regional proposals can move quickly to financing.

Strengthen data collection, monitoring, and evaluation

Robust investment-focused data systems are critical to attract investors, demonstrate impact, and inform adaptive decision-making. Subnational actors can enhance credibility by building digital platforms, defining relevant indicators, and aligning monitoring with national and global standards. Importantly, metrics for adaptation finance should also evolve to capture biodiversity co-benefits—such as ecosystem restoration, species resilience, and soil-carbon retention—demonstrating the multiple values of nature-based adaptation while tracking adaptation investments and evidencing results to build the case for direct access to funds.

Use tailored instruments and strengthen financial foundations

Financial tools must be adapted to subnational realities and reflect the administrative, fiscal, and governance capacity of subnational governments. Scalable instruments—such as green bonds, blended finance, or pooled vehicles—should be tailored to local context and integrated into mainstream fiscal systems, moving beyond pilots. Improving own-source revenue mobilisation (e.g., better tax collection, user fees, land value capture) and enhancing creditworthiness (e.g., transparent budgeting, debt management, and credit ratings) are essential foundations and often prerequisites for accessing many of these instruments and attracting private finance.

Mainstream adaptation into wider policy and public financial management

Integrating climate adaptation into planning, budgeting, and expenditure systems ensures coherence, long-term visibility, and efficient resource allocation. Techniques include climate-resilient fiscal planning, climate budget tagging, green procurement, and climate-informed investment strategies. Since many adaptation measures deliver public goods like flood protection, health, or ecosystems, much funding must come from public budgets, making mainstreaming into fiscal and policy frameworks essential.

Foster collaboration and partnerships

Regional governments cannot act alone. By building cross-sectoral and cross-level partnerships, they can align priorities, pool resources, and strengthen delivery. Networks such as Adaptation Scotland or RegionsAdapt demonstrate how collaborative platforms pool resources, share solutions, and advocate collectively for systemic reform, engaging both public and private stakeholders in accelerating adaptation.

Strengthen legal and policy frameworks for adaptation finance

Over the longer term, clear legal and policy mandates that integrates climate and biodiversity goals into laws, planning and finance systems are essential. These enables the development of dedicated funds, trust mechanisms, and eligibility for national and international finance, giving regions the mandate and legitimacy to demand direct access to finance. This institutionalisation must be paired with capacity-building in financial literacy, project preparation, and donor engagement so that regional governments can exercise these mandates effectively.

Reforming finance systems and unlocking systemic support: Empowering subnational finance at scale

Recommendations for national governments, development partners and financial institutions

Institutionalise subnational role and multilevel governance

Recognise and institutionalise subnational roles in law and climate strategies. Subnational roles in adaptation planning and finance must be clearly defined and protected in legislation and national climate strategies such as NDCs, and NAPs. Clear legal and policy mandates that integrate climate and biodiversity goals into planning and financing frameworks enable the creation of dedicated funds, trust mechanisms, and eligibility for national and international finance.

Establish multi-level governance and country platforms. Formal coordination between national and subnational governments is essential to align climate priorities, strengthen institutional frameworks, and jointly plan and budget for adaptation. Country platforms should be inclusive and locally driven, with subnational financing windows and representation in governance, systematically integrating local priorities into national strategies. Strong vertical coordination is critical to avoid fragmentation and ensure alignment across all levels of government.

Invest in long-term skills training and institutional capacity. Adaptation finance and project development remain new and complex for many subnational actors. National governments and partners should prioritise systematic local capacity-building — covering project preparation, financial management, and the use of climate data — through targeted training programmes, peer-to-peer exchanges, and long-term institutional support.

Expand direct access and empower subnational finance

Ensure dedicated subnational access windows. National governments, MDBs, and climate funds should establish dedicated financing windows for subnational governments and streamline procedures to reflect their realities. The Fund for Responding to Loss and Damage (FRLD) should also provide direct access modalities for subnational governments, either directly or via development banks and associations, so frontline communities can swiftly secure resources.

Develop dedicated regional climate funds. Climate funds at the regional or local level can strengthen fiscal autonomy by giving subnational governments predictable revenue streams through earmarking, levies, or transfers.

Empower development banks as intermediaries. National and subnational development banks should be prioritised for accreditation by the Green Climate Fund, Adaptation Fund, and MDBs, and equipped to channel resources to local projects. This includes expanding local-currency lending, guarantee facilities, and off-balance-sheet mechanisms, alongside annual reporting on flows to subnational governments. Development banks should also help scale proven innovative finance instruments — such as green bonds, resilience-linked loans, or ecological fiscal transfers — moving beyond isolated pilots to systemic adoption.

Reform fiscal frameworks to align with resilience needs. Governments, MDBs, and funds should expand fiscal space through tools such as carbon pricing, resilience-linked bonds, and debt-for-adaptation swaps, while also reforming national fiscal transfer systems to integrate climate and vulnerability criteria, so finance can flow directly to territories with the highest needs.

Mobilise private sector co-investment. Private actors should be incentivised to protect assets and supply chains, especially in climate-vulnerable regions, while generating wider public benefits.

Track and align finance with resilience needs

Track and report subnational finance flows. National governments, MDBs, and climate funds should be mandated to systematically monitor and disclose the volumes channelled to subnational governments. Disaggregated reporting is essential to ensure finance actually reaches the frontline, build accountability, and guide more equitable resource allocation.

Ensure indicators for subnational access to finance and delivery capacity are included in the Global Goal on Adaptation (GGA).

Support subnational data systems and harmonised Monitoring & Evaluation. Disaggregated data and robust monitoring frameworks improve transparency, build trust with funders, and allow adaptive management of resources. Harmonised approaches aligned with national and global reporting standards are needed so global reporting reflects realities on the ground and helps attract finance.

Invest in just and resilient adaptation pathways

Support low-cost, high-impact interventions. Not all adaptation requires large-scale infrastructure or complex blended finance schemes. Low-regret measures—such as community-based early warning systems, climate-resilient agriculture, or watershed co-management—offer high returns at relatively low cost and should be scaled up.

Advance inclusive adaptation strategies. Support subnational governments in adopting approaches that are not only ecologically sound, but also socially inclusive and development-oriented. This means mainstreaming gender and social inclusion, and prioritising community-based approaches that actively engage vulnerable groups.

Prioritise nature and ecosystem-based investments and enable biodiversity-adaptation finance. Support subnational governments in scaling up nature-based solutions that deliver both climate resilience and biodiversity benefits, moving from pilots to systemic adoption through direct funding, incentives, and technical support. At the same time, provide the resources and frameworks that enable subnational governments to align biodiversity and adaptation goals in their finance systems—embedding them into planning and budgeting so they can unlock targeted and blended funding.

Adapt instruments and build project preparation ecosystems

Adapt financial instruments to subnational realities. Eligibility rules, procedures, and project requirements must reflect the scale, administrative capacity, and revenue base of subnational governments. Instruments should allow flexibility in project size and scope, lowering barriers to entry.

Invest in project preparation and technical assistance. Early-stage assistance is critical to convert adaptation ideas into investment-ready proposals. Technical and financial assistance should cover diagnostics, project design, and funder alignment, while capacity-building should strengthen financial literacy, proposal writing, and engagement with donors and investors.

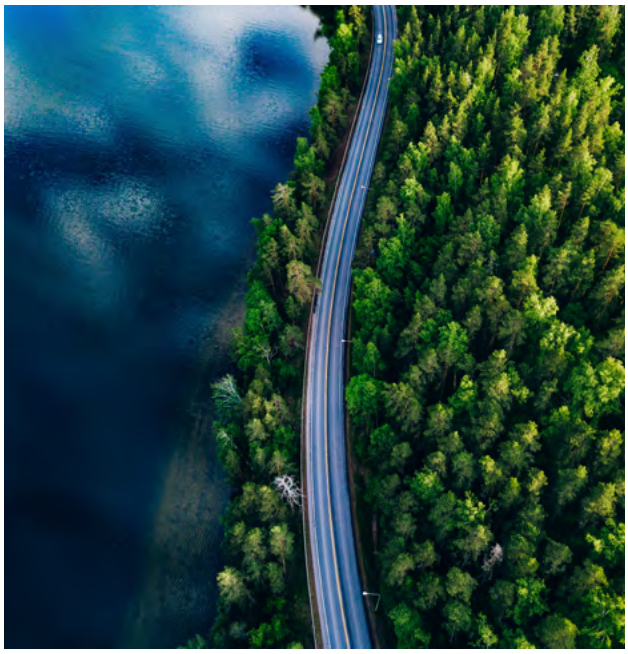
Recognise decentralised cooperation. Bilateral and peer-to-peer cooperation should be acknowledged as legitimate channels for early-stage project support and capacity-building. Decentralised cooperation can provide targeted, flexible, and trust-based support to build pipelines where national or multilateral mechanisms fall short.

About RegionsAdapt

RegionsAdapt is the flagship climate initiative of Regions4, dedicated to advancing climate adaptation at the subnational level—including states, provinces, and regions. Since its launch in 2015, the initiative has supported over 80 subnational governments in developing and implementing adaptation strategies through collaboration and capacity-building.

From the outset, RegionsAdapt has monitored members' progress toward the four core commitments made upon joining (see Figure 5). This tracking is carried out primarily through the CDP States and Regions Questionnaire, providing valuable insights into subnational adaptation planning and action. Progress is shared through annual reports, peer-learning communities, events, communications, and the RegionsAdapt Subnational Tracker Tool.

Tracking this progress is essential to inform decision-making, scale successful practices, and promote transparency and accountability. It also strengthens global advocacy, with CDP data feeding into platforms such as the UNFCCC's Global Climate Action Portal and the Race to Resilience Data Explorer.



This year's Progress Report focuses on financing adaptation at the subnational level, drawing on CDP data from 109 states and regions, including 41 RegionsAdapt members:

Assess

climate change impacts through risk and vulnerability assessments that include all vulnerable communities.

- 68% have conducted risk and vulnerability assessments.

Plan

and adopt an ambition adaptation strategy, plan or programme, mainstreaming adaptation into other sectoral policies and including the most vulnerable populations.

- 73% have an adaptation-inclusive climate action plan or strategy, with 12% currently developing one.

Act

by implementing concrete adaptation actions in identified priority areas.

- In 2024, members reported 257 actions. 63 have measurable impacts, benefiting over 209 million people.

Report

annually on their progress through RegionsApdat/CDP reporting platform to inform and improve policies and actions.

- 41 RegionsAdapt members from 16 countries report to CDP, covering 290 million people and 5.5 million km² of global territory.

Figure 5. *Four key commitments of RegionsAdapt Members.*

About the Report

This report was led by Metroeconomica (Sascha Goonesekera), whose analytical work underpins the findings presented, and developed in close coordination with the Regions4 Secretariat (Mélisa Cran, Héloïse Chicou).

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Regions4

Regions4 is a global network representing subnational governments (states, regions, and provinces) before UN processes, European Union initiatives, and global discussions in the field of sustainable development. Through advocacy, cooperation, capacity-building, and knowledge exchange, we empower subnational governments to accelerate climate action, halt biodiversity loss, and raise ambition to achieve the SDGs towards resilient and sustainable territories and communities. Follow @Regions4SD or visit www.regions4.org.

Metroeconomica

Metroeconomica is a leading European institution specialising in the economic and policy assessment of local, regional, and global environmental challenges. With a strong focus on environmental economics and policy, Metroeconomica applies a range of social science research methods across various policy domains. The organization has extensive experience in climate finance and plays a key role in supporting evidence-based adaptation strategies. Follow @Metroeconomica www.metroeconomica.com.

CDP

CDP is a global, non-profit that runs the world's environmental disclosure system for companies, investors, public authorities, cities, states, and regions. Over 24,000 organizations around the world disclosed data through CDP in 2023, including more than 23,000 companies - including listed companies worth two thirds of global market capitalization - and over 1,100 cities, states, and regions. Fully TCFD aligned, CDP holds the largest environmental database in the world, and CDP scores are widely used to drive investment and procurement decisions towards a zero carbon, sustainable, and resilient economy. Follow @CDP to find out more or visit data.cdp.net.

Race to Resilience

The Race to Resilience is a global campaign led by the UN Climate Change High-Level Champions that aims to catalyse action by non-party stakeholders in building the resilience of 4 billion people from vulnerable groups and communities to climate risks by 2030. Through a partnership of initiatives, its focus is on helping the most vulnerable, including frontline communities, to build resilience and adapt to the physical impacts of climate change, such as extreme heat, drought, flooding, and sea-level rise. climatechampions.unfccc.int/system/resilience.

REGIONSADAPT

A flagship initiative of

Regions4
Sustainable Development

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