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REGIONSADAPT

# Raising ambitions on climate adaptation

Lessons learnt and contributions from regional governments

**Regions4 report for COP26**

## ACKNOWLEDGEMENTS

### Authors

This report has been written by Elisa Sainz de Murieta, Research Fellow at the Basque Centre for Climate Change (BC3), with the support of the Iñobe Basque Agency for Environment and of the Regions4 Secretariat: Heloise Chicou, Climate Advocacy Officer, Natalia Uribe, Secretary General, and Mayra García-Blásquez, RegionsAdapt Project Officer.

### Considerations

The brief is based on the contributions of RegionsAdapt members, Regions4 reports published in the past 5 years, and the larger literature on adaptation and resilience. It is not intended to be an exhaustive review.

### Special mention

Regions4 wants to send a particular recognition to the Basque Center for Climate Change (BC3) for this collaboration, as well for the regional governments of the Basque Country (Spain), Quebec (Canada), Gossas (Senegal), Cross River State (Nigeria), Mancomunidad Regional de los Andes (Peru), São Paulo (Brazil), Consorcio de Gobiernos Autónomos Provinciales de Ecuador (CONGOPE), Jalisco (Mexico), Catalonia (Spain), Rio de Janeiro (Brazil), Wales, and South Australia for their contributions.

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## ACRONYMS

**CDP** - Climate Disclosure Project

**CONGOPE** - Consortium of Regional Governments in Ecuador

**COP** - Conference of the Parties to the UN Framework Convention on Climate Change

**GDP** - Gross Domestic Product

**GHG** - Greenhouse Gases

**IPBES** - Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services

**IPCC** - Intergovernmental Panel on Climate Change

**LGMA** - Local Governments and Municipal Authorities constituency

**NDC** - Nationally Determined Contributions

**NAPS** - National Adaptation Plans

**SDG** - Sustainable Development Goals

**UNEP** - United Nations Environment Programme

**UNFCCC** - United Nations Framework Convention on Climate Change

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## HIGH LEVEL REMARKS



# A turning point for regional climate resilience

### ***Ms Arantxa Tapia***

Regions4 President

Minister for Economic Development, Sustainability and  
Environment of the Basque Country

As we approach COP26, heads of state and the international community prepare to decide on how we will jointly achieve a net zero, resilient world. The recently published IPCC report (August 2021) shows that we are still far from meeting the Paris Agreement targets. The severity of climate change and its impacts are increasing the vulnerability of our territories by the minute. The collective and coordinated response to this global emergency cannot be postponed anymore; it is high time we put climate policy at the front of the political agenda.

Faced with this growing threat, regional governments are leading the way and developing tailored and targeted solutions for their community and environment that can be replicated in other parts of the world. In the Basque Country we have implemented several collaborative actions over the years, such as the initiative Klimatek. This has allowed us to develop climate innovation projects; create tools for informed decision-making; and provide funding mechanisms for local implementation.

The leadership of regional governments can and should inspire ambitious and effective national adaptation plans and NDCs. By increasing solutions-oriented collaboration among national and regional governments, and localising climate finance mechanisms, we will not only enable more and better planning, but we will also better measure the effectiveness to reduce vulnerability and climate risks. Furthermore, integrating climate adaptation into other global agendas and sectoral policies, such as those to halt biodiversity loss, will allow us to improve the conditions of vulnerable communities and ecosystems, as well as drive coherent and effective climate action.

Through this brief report, Regions4 wishes to contribute to meeting the COP26 objectives by focusing on strengthening the capacity of regions to increase their ambitions on adaptation and resilience. We hereby bring best practices, evidence, and key recommendations to co-create and co-design the actions that will avoid further damages, protect human lives, ecosystems, and livelihoods, and truly transition towards resilient economies and territories.





# RegionsAdapt: 5 years mobilizing regional leadership for a resilient future

**Mrs Natalia Uribe**

Regions4 Secretary General

Tackling climate change requires a multi-level and collaborative effort. Regional governments are spearheading innovative and scalable solutions, while cooperating across levels of government towards resilient economies and territories.

Over the past 5 years, RegionsAdapt members have worked to bridge the adaptation gap and are driving the required transformations. Today, we witness a growing community of 75 regions worldwide who are developing innovative solutions to build the resilience to climate shocks and increase the adaptative capacity of the local communities. This is done by strengthening food security and sustainable agriculture; ensuring water availability and regulation; restoring coastal areas and protecting ecosystems; integrating the urban and rural realities; advancing towards renewable energy models; and developing education schemes to increase capacity-building among others.

As an official partner to the UNFCCC Race to Resilience, RegionsAdapt will support regional governments to engage in this ground-breaking global campaign, catalysing non-state action towards the resilient future of more than 4 billion people by 2030.

This report offers an opportunity to look at the lessons learnt and share expertise on the ground-breaking work that regions are undertaking in their territories. Indeed, as we have seen for the COVID-19 pandemic, we need extraordinary efforts under exceptional circumstances. 2021 marks a year of critical meetings and a turning point if the world wants to secure a future where people and planet can thrive together. The COP26 will be a key moment to show the contributions and expertise of regions in raising ambitions on adaptation.

Regional governments stand ready to meet the challenge and Regions4 will continue to catalyze this leadership for a sustainable, inclusive, and climate-resilient future. I warmly invite all regions to join us to build a resilient future together!



## REGIONSADAPT FOUNDING MEMBERS: THE WAY FORWARD



**Ms Teresa Jordà i Roura**

Minister of Climate Action,  
Food and Rural Agenda,  
Government of Catalonia

*"On 12 December 2015, 196 Parties to the UN Framework Convention on Climate Change adopted the Paris Agreement marking a historic turning point for global climate action. This new global framework recognised, among others, the crucial need for a balanced approach between mitigation and adaptation, as well as the vital role of multi-level climate governance.*

*As founding members, we supported the creation of the RegionsAdapt initiative at COP21, as the first global initiative for subnational governments to develop climate adaptation plans and report on their progress. Since then it has inspired and supported regional governments worldwide representing over 280 million people, to develop adaptation plans and strategies, take concrete actions and transparently report on progress.*

*We are very aware of the profound and urgent changes that are now needed if we are to halve emissions in a decade, which is crucial to reach climate neutrality in 2050. We call as for COVID recovery plans that take into account the climate crisis; new finance commitments for supporting regions and measures to limit global warming to 1.5°C and to support the most vulnerable as we strive to achieve a resilient world.*

*Looking forward we will support RegionsAdapt to lead as the global hub of regions delivering and reporting adaptation actions every year to effectively reduce the vulnerability of our communities, while working collectively to achieve the global climate goals."*



**Mr Cláudio Castro**

Governor of the State of  
Rio de Janeiro

*"Back in 2015, when the State of Rio the Janeiro and the Government of Catalonia joined forces to create the RegionsAdapt initiative, we did so with the conviction that it was high times for regional governments to have their voices heard at the top table of the global climate agenda. More specifically, we wanted to bring attention to the importance of enhancing ambition on climate adaptation and the crucial role played by regions in reducing vulnerability of their territories and its citizens.*

*Being part of this unique platform has been an accelerating factor to put forward our State Climate Adaptation Strategy. However, much remains to be done. As stated in the recent IPCC report, we are still falling behind and need to commit to transformative changes if we are to achieve the 1.5°C goal. In this sense, accelerating adaptation measures and goals is more crucial than ever. We believe that RegionsAdapt can help meet these challenges, which is why we encourage and invite other regions to join us."*





# 1

## THE DECADE OF ACTION

The COP26, to be held in Glasgow in November 2021, is a critical moment to accelerate global climate action and raise ambitions in this decade. The latest report by the Intergovernmental Panel on Climate Change (IPCC) Working Group in 2021 disclosed that **it is unequivocal that climate change is driving unprecedented changes that are already affecting all regions of the world** (IPCC, 2021). This current decade 2021-2030 is, therefore, the most vital period for reaching climate neutrality and the emission reduction targets adopted in the Paris Agreement. The revision of nationally determined contributions (NDCs) to be presented in Glasgow must reflect the urgency of ambitious mitigation and adaptation action to respond to the climate emergency.

The current decade is crucial for more than one reason. With less than 10 years to achieve the SDGs, the world leaders who convened in the New York Summit in September 2019 made a strong call for this to be the **decade for action**. This declaration highlights the need to accelerate action for a transformation that requires global leadership; it also acknowledges the fundamental role of subnational governments and other non-state actors, including civil society, in achieving the SDGs.

The COVID-19 pandemic has affected people's lives and led to an unprecedented economic crisis. Public policies adopted during the COVID-19 pandemic, including confinement, radically changed consumption and transportation patterns, resulted in a drastic, albeit temporary, reduction in global greenhouse gas emissions (GHG) (Le Quéré et al., 2020).

However, momentum for climate action has slowed down, despite evidence of the potential of recovery packages to respond to the climate and economic crises (Hepburn et al., 2020). Announced recovery policies and measures represent an increase in clean energy investments, but so far only 2% of governments' spending has been allocated to clean energy solutions (IEA, 2021). The pandemic is also expected to undermine the capacity to plan, implement, and finance adaptation policies, especially for the most vulnerable countries (UNEP, 2021). At the same time, we are witnessing extreme weather events worldwide, such as recent wildfires in North America and floods in Europe and China.

In this context, the COP26 seeks to respond to the ambitious targets set out in the Paris Agreement by securing carbon neutrality by 2050 and keeping the 1.5°C target within reach. Moreover, COP26 seeks to enhance adaptation to protect the most vulnerable communities from climate change impacts, as well as mobilise climate finance and promoting collaboration for action. While the concept of increasing climate ambition has traditionally been linked to mitigation policies and emission reduction efforts, coping with climate change requires the deployment of both adaptation strategies and accounting for uncertainty and risk (IPCC, 2014).

The Paris Agreement stated the need to establish a global goal on adaptation, but so far this showed to be a difficult task. Different understandings of what adaptation to climate change means, coupled with the need to consider it across different temporal and spatial scales, requires taking the values and perceptions of different actors into account, and the need to work on agreed definitions (Hinkel, 2011). Likewise, defining a global goal demands setting comparable indicators and baselines, common guidelines and systematic approaches (Araos et al., 2016; Ford et al., 2015).

To set an ambitious global goal on adaptation, first we need to understand what *increasing ambition means for adaptation*. Improving the understanding of climate change risks and what adaptation progress is, including not only planning processes, policies and measures (outputs) but also the actual risk reduction (outcomes), is critical. Adaptation is undertaken by multiple public and private actors, across multiple levels of governance, and for this reason, it can be understood as a multi-level public and private governance process in which collaboration between actors and vertical and horizontal coordination are indispensable. In recent years, progress has been made and climate adaptation is now widely embedded in policy and planning across the world.

Local and regional governments are at the forefront of innovations and the implementation of ambitious adaptation actions and plans. Nevertheless, levels of engagement and the quality of instruments are vastly different from country to country, region to region. The evidence shows an insufficient deployment of monitoring and evaluation mechanisms, which are essential to track implementation and enable adjustment and learning processes. Finance flows for adaptation have been growing steadily, but a sharp increase is urgently needed. Such an increase could reach up to 5 to 10 times current spending in developing countries alone (UNEP, 2020).

Regions4, through its flagship initiative, RegionsAdapt, has worked closely with regional governments to catalyse ambitions and promote the development of adaptation plans, as well as their concrete implementation and accountability through annual reporting. The COP26 is an occasion to look back at this experience gathered over the past 5 years build on the good practices and lessons learned and propose innovative and sound recommendations on the way forward.





## 2

# REGIONSADAPT LEADERSHIP IN RAISING AMBITION FOR CLIMATE ADAPTATION

The RegionsAdapt initiative was launched in 2015, alongside COP21 in Paris. The initiative was driven by the Governments of [Catalonia](#) and [Rio de Janeiro](#). Together, with 25 other leading regions, they saw the need to step up global ambition on climate adaptation by bridging the gap between the decisions taken at the national level and on the ground implementation. [By fulfilling this gap, RegionsAdapt became the first global initiative to inspire and support regional governments in developing adaptation plans and strategies, taking concrete action, and reporting on their efforts to adapt to climate change](#) (Setzer et al., 2020).

[In the past 5 years, RegionsAdapt has seen a growing number of regional governments joining the initiative and accelerating actions on adaptation.](#) The initiative gathers over 75 regional governments worldwide, representing more than 280 million people. It has supported the development and implementation of more than 50 adaptation plans, with over 230 adaptation actions to tackle the physical and socio-economic risks of climate change reported annually.

Through its collaborative work within UNFCCC mechanisms, such as the Marrakech Partnership for Global Climate Action, the Local Governments and Municipal Authorities constituency (LGMA) and its participation at the UNFCCC Conference of the Parties, RegionsAdapt has raised the visibility and

engagement of regional governments in the global climate processes and allowed for the recognition of the role of regional governments within the Paris Agreement. Together with other non-state actors such as cities, businesses, or NGOs, RegionsAdapt's potential to deliver climate action is now increasingly recognised (Chan et al., 2015). Furthermore,

RegionsAdapt has promoted vertical and horizontal cooperation, as well as knowledge exchange and multi-level governance for the effective implementation of its members' adaptation strategies.

Today, the initiative mobilises ambition and action on climate adaptation by facilitating access to innovations, tools, and best practices at the regional level throughout the world.

**BOX 1**

**REGIONSADAPT**

FOR MORE INFORMATION  
ON HOW TO JOIN THE  
REGIONSADAPT INITIATIVE  
AND RACE TO RESILIENCE  
CAMPAIGN CONSULT [HERE](#)

## Mobilising ambition and facilitating knowledge exchange and capacity building

Networks of actors, such as Regions4 through the RegionsAdapt initiative are essential to foster collaboration, as well as learning and raising capacities, leading to enhanced ambitions from their members and contributions to the climate agenda.

When joining **RegionsAdapt**, Regions commit to:

### Prioritize and plan

adopting an adaptation plan or programme (mainstreaming adaptation into other sectors and/or policies) within the first two years of joining.

### Implement

concrete actions on adaptation in key identified priority areas.

### Report

annually on your adaptation progress through the Online Reporting Platform in partnership with CDP.

With its new strategy, **RegionsAdapt** will support its members in amplifying and accelerating their actions and ambitions by:

**1**

### Raising their voice

through joint advocacy and participation within key climate instances.

**2**

### Supporting its members

to develop and implement ambitious adaptation plans through technical support and cooperation across regions.

**3**

### Promoting knowledge exchange

peer to peer learning, and capacity building through a vibrant community of practice.

**4**

### Reporting

transparently on progress through its annual reporting, allowing its members to learn and adapt from the evidence provided and publicly disclose the progress of their adaptation efforts on a global scale.



AS AN OFFICIAL PARTNER TO THE UNFCCC RACE TO RESILIENCE, REGIONSADAPT SUPPORTS REGIONAL GOVERNMENTS TO ENGAGE IN THIS GROUND-BREAKING GLOBAL CAMPAIGN AIMED AT CATALYSING ACTION OF NON-STATE ACTORS TOWARDS THE RESILIENT FUTURE OF MORE THAN 4 BILLION PEOPLE IN 2030.





### 3

## ENHANCING MULTI-LEVEL GOVERNANCE TO DRIVE COHERENT AND EFFECTIVE CLIMATE ACTION

The goals set by the COP26 Presidency address the need to achieve carbon neutrality by 2050, increase resilience and adaptation efforts as well as finance, and enhance collaboration to transform ambition into action over the next decade. Climate change governance has become a complex structure that runs from global to national and subnational levels, and is supported by both formal and informal networks and policy channels (Bulkeley et al., 2014). In this context, **multilateral collaboration is essential to raise ambitions, but also increased collaboration between actors at different levels of governance**. The commitments of non-state actors have the potential to contribute to raising the ambition of national pledges (Data Driven Yale et al., 2018).

**A recent analysis suggests that not only could national climate actions be improved by including the contribution of subnational governments, but this integration also has the potential to align the NDCs with the 2030 Agenda and the progress towards the Sustainable Development Goals, SDGs (GIZ, 2021).**

**Regional governments often have authority and regulatory powers in policy domains that are critical for climate change adaptation.** Therefore, they have the experience, knowledge, and capacity to manage policies related to spatial planning, the environment, water resources, health or education (Setzer et al., 2020).



While multi-level collaboration is a desirable goal to ensure effective climate policies, non-state actors can play a supplementary role to that of the national government (Farber, 2014).

**Another relevant function of regional governments is that they can act as a nexus between the local and national levels.** On the one hand, they can play an important role in the deployment of national policies at different scales; on the other hand, they can favour the transfer of policies that have been effective at the local level to other contexts and scales. This reflects the “glocal” nature of climate change policies, that combines global with local characteristics (Gupta et al., 2007). Compared to national adaptation planning that tends to follow a sectoral approach, regions have a more holistic vision of the territory and increased sharing of power with the civil society, which can favour sectoral coordination and integrate the needs of urban and rural realities (Setzer et al., 2020).

**The subnational level also offers opportunities to foster policy innovation that can be scaled-up, as well as interaction with other actors and capacity building** (Anderton and Setzer, 2018; Chan et al., 2015). Regional adaptation partnerships could represent an innovative governance approach that relies mainly on network governance between different societal spheres and levels of government (Bauer and Steurer, 2014).

Given that the impacts of climate change can vary greatly between municipalities and regions, the collaboration of different levels of governance when planning and implementing adaptation is not only desirable, but indispensable. **Incorporating the efforts of subnational governments in developing, implementing and updating NDCs through localisation processes and greater multi-level cooperation would be an important step forward in accelerating action** (GIZ, 2020).

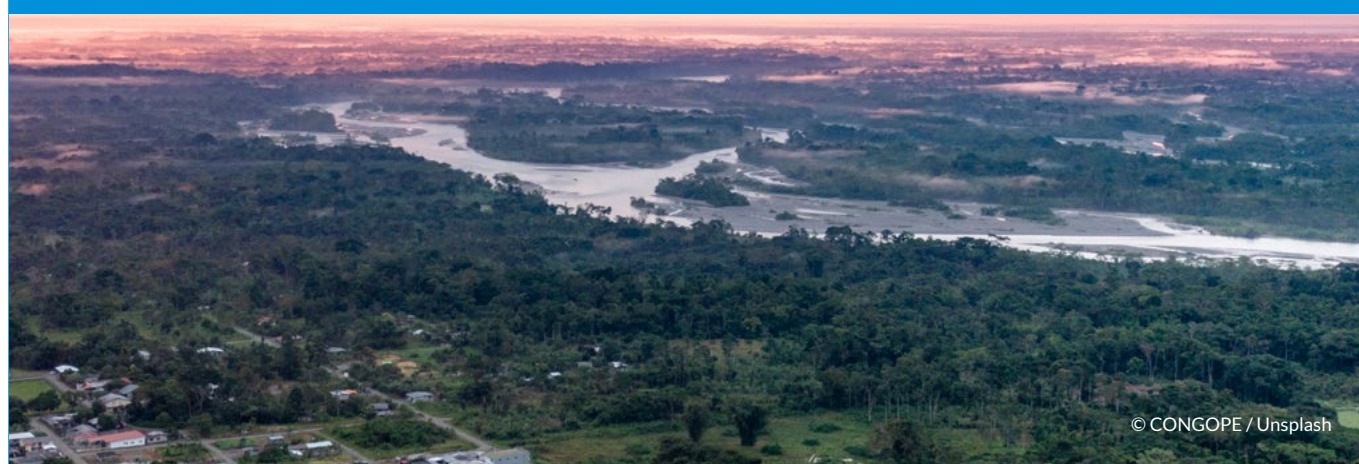




For example, in Ecuador, the NDC explicitly mentions that the measures will be implemented in collaboration with the different subnational governments and other stakeholders, such as the private sector. The Consortium of Regional Governments in Ecuador, CONGOPE, developed a project to set up provincial climate risk assessments

and adaptation strategies that represent the first national effort to determine the main climate risks. CONGOPE has also carried out an analysis of how to link Ecuador's NDC to development and land-use planning instruments, which has allowed identifying indicators and types of activities that could be included in the next update of the NDC (Box 2).

## BOX 2 PROVINCIAL CLIMATE CHANGE STRATEGIES TO GUIDE LOCAL AND NATIONAL CLIMATE ACTION



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**REGION:** CONGOPE, CONSORCIO DE GOBIERNOS AUTÓNOMOS PROVINCIALES DE ECUADOR

**GDP (US\$)**

**68,135 M\$**

**POPULATION**

**17 268 000**

**COUNTRY**

**ECUADOR**

With the financial support of the European Union, CONGOPE and the Provincial Governments have developed participatory provincial climate change strategies with the aim of supporting the generation and implementation of local public policy on climate change adaptation and mitigation and incorporating a gender approach. This process was carried out from November 2016 to May 2021, and had an investment of 1,250,000 Euros.

The strategies were developed on the basis of provincial assessments that incorporate an analysis of climate risks in seven areas related to territory (crops, farmers, road infrastructure, population exposed to metaxenic diseases, human settlements, natural ecosystems, and water sources). The diagnoses also considered several climate hazards related to temperature and precipitation variation considering two future emission scenarios. Provincial adaptation strategies were developed on the basis of risk assessments, following a territorial perspective where different sectors were integrated, and through participatory processes involving representatives from other local governments, ministries, academia, the private sector, NGOs, producer associations, and women's organisations, among others.

The risk assessments promoted by CONGOPE is the first national effort to identify climate risks. The lessons learnt have been incorporated into the National Adaptation Plan (PLANACC). As a result of this process, all 23 provinces in Ecuador now have a climate action roadmap which is aligned with the 2030 Agenda and with Ecuador's nationally determined contribution (NDC).

### KEY FACTOR:



MULTI-LEVEL  
GOVERNANCE FOR  
ADAPTATION



ADAPTATION  
FINANCE



IMPLEMENTATION,  
MONITORING AND  
REPORTING



MAINSTREAMING  
ADAPTATION

**REFERENCES:** CONGOPE'S WEBSITE

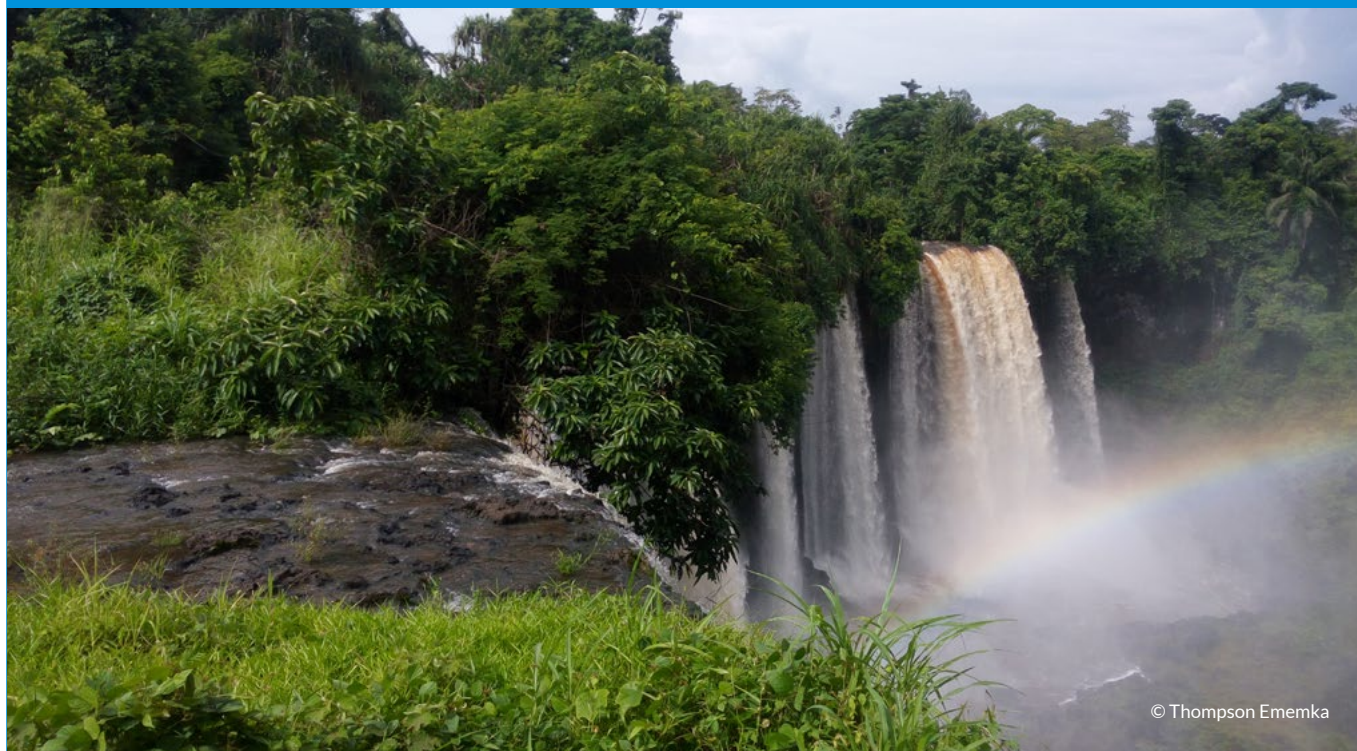
In practice, multi-level coordination is not without its challenges. In addition, the uncertainty of the progression of extreme events further increases the complexity of multi-level decision-making and coordination processes, making it difficult to predict which level of governance can exert the most influence on policy decisions. The relationship and level of coordination between national, regional, and local scales vary greatly depending on the organisation of each country, as well as by political tensions or competitiveness (Duggan, 2019). **A survey of regional government members to the RegionsAdapt initiative developed in 2019 showed that almost 30% of the regions had not been involved in the national adaptation planning process, even if they had partial or full competencies in policy areas related to adaptation.** Moreover, regional data about risks and coping capacities were often not included in the plan. Some regions also mentioned a lack of technical and financial support, notably in developing regions (RegionsAdapt, 2019).

The sustainable forest management project developed in **Cross River State** (Nigeria) provides an example of **multi-level collaboration at the project level** (Box 3). This project showed cooperation between the federal government, three regional governments, two funding agencies, and other stakeholders (including the private sector, the civil society, academia and the forestry community). The project aimed to improve climate resilience, energy, food security, and water availability through forest restoration and reforestation.



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**BOX 3 STRENGTHENING CLIMATE RESILIENCE, FOOD SECURITY, ENERGY EFFICIENCY AND ENVIRONMENTAL SECURITY**


© Thompson Ememka

**REGION: CROSS RIVER STATE (CRS)****GDP (US\$)****5,600 M\$****POPULATION****4 500 000****COUNTRY****NIGERIA**

The initiative aimed to improve the capacity of degraded forests for climate resilience, food security, water availability, and the sustainable production and use of fuelwood. Other objectives included improving the production of food, fodder, organic fertiliser for soil and the restoration of coastal areas, as well as depleted forests and marginal lands through agroforestry land-use system. The project also aimed to improve capacity building of forest communities in nursery and plantation techniques, fabrication of clean cook stoves, and the production of briquette (bio fuel) from rice, coconut husk, and shells of palm kernel.

Established in 2017, the Sustainable Fuelwood Management (SFM) project promotes collaborative action between levels of government, namely the Federal Government of Nigeria through the Energy Commission, three state governments in Nigeria (Cross River, Delta and Kaduna), the Global Environment Facility, and the United Nations Development Programme. The project also involves different stakeholders, including the civil society, the forestry community, business, and academia, through a partnership platform of collaborative negotiation, planning, and the implementation of projects.

The project entailed an investment of US\$ 20 million and its numerous outcomes ranged such as increased forest and cropland area, gender-sensitive training, capacity building to landlord communities on nursery and plantation crop cultivation within woodlots and restoration of degraded areas. So far over 65 hectares of degraded forest and marginal lands have been regenerated. Trained community members are developing private tree nurseries for commercial purposes and over 70 women have been trained so far.

**KEY FACTOR:**
**MULTI-LEVEL  
GOVERNANCE FOR  
ADAPTATION**

**ADAPTATION  
FINANCE**

**IMPLEMENTATION,  
MONITORING AND  
REPORTING**

**MAINSTREAMING  
ADAPTATION**
**REFERENCES:** [WEBSITE OF THE PROJECT](#)

As mentioned before, increasing ambition requires the collaboration of multiple actors and at multiple governance levels. The Jalisco State Government established a collaboration agreement with the Tequila Regulatory Council (CRT) to contribute to the sustainability of the sector. The initiative includes the design and implementation of the protocol and certification “Environmentally Responsible

Agave (ARA)” brand, the promotion of responsible production processes, and the ensuring of forest conservation of natural forests associated with tequila production by 2027. Multiple stakeholders have been involved in the process, from the national ministries for agriculture and the economy to local authorities and the private sector (Box 4).

#### BOX 4 **JALISCO’S AGAVE-TEQUILA ZERO DEFORESTATION CERTIFICATE AND INITIATIVE**



REGION: **JALISCO**

GDP (US\$)

**60,394 M\$**

POPULATION

**8 368 602**

COUNTRY

**MEXICO**

Tequila production is one of the main economic activities in Jalisco. In 2020, production records were broken in Mexico, with 73% of production taking place in Jalisco. However, this has significant environmental and social impacts, such as deforestation and degradation of Jalisco’s temperate and tropical forests.

To address this situation, the Jalisco State Government signed a Collaboration Agreement with the Tequila Regulatory Council (CRT) to establish the basis for the formulation and implementation of an institutional cooperation scheme that would contribute to the sustainability of the sector. The initiative includes the design and implementation of the protocol and certification “Environmental Responsible Agave (ARA)” brand, the promotion of responsible production processes and the ensuring of forest conservation, with the aim of halting the deforestation of natural forests associated with tequila production by 2027. To this end, technical roundtables were established for innovation, the development of technological solutions, and the promotion of better production practices for the conservation of biodiversity and forest restoration—all with the aim of contributing to the improvement of the environmental footprint.

One of the keys to the success of the initiative was the collaboration with the industry. In addition, at the state level, inter-institutional collaboration with the ministries of economy and agriculture has been necessary to align and integrate economic and environmental policies for the implementation of certification. On the other hand, municipal authorities were also involved in the dissemination of the brand and the training of technicians and producers.

This initiative is framed into a State Strategy to stop deforestation by productive activities, that in addition to livestock and avocado production regulation (in development), the implementation of this protocol has raised the ambition to 50% reduction of deforestation by 2024, and 100% reduction by 2030. Accompanied by other key policies related to forest and biodiversity management, this protocol is essential for Jalisco’s climate action.

#### KEY FACTOR:



MULTI-LEVEL  
GOVERNANCE FOR  
ADAPTATION



ADAPTATION  
FINANCE



IMPLEMENTATION,  
MONITORING AND  
REPORTING



MAINSTREAMING  
ADAPTATION

REFERENCES: FURTHER INFORMATION IS AVAILABLE [HERE](#)





## 4

# STRENGTHENING PLANNING, IMPLEMENTING, AND MONITORING TO INCREASE AMBITION

**Adaptation to climate change is receiving growing attention.** The Paris Agreement's recognition of the imperative of adaptation and the inclusion in Article 7 of the inexorable need to build resilience, enhance adaptive capacity, and reduce vulnerability, as well as the need to report on progress, has been a turning point (Maganan and Ribera, 2016). **In this context, increasing ambition on adaptation requires more and better planning, as well as implementation and monitoring of adaptation, not only to advance its deployment but also to measure progress and evaluate its effectiveness in reducing vulnerability and addressing climate risks.**

Measuring the progress on adaptation, however, comes with many challenges. There is an emerging interest in the definition and use of adaptation indicators and metrics even though no agreed target or quantifiable metric exists yet (Arnott et al., 2016). At the same time, **no universal assessment framework has been agreed upon to evaluate this progress, even though some necessary criteria have been identified.** Data collection is another major obstacle as well, including the diversity of baselines, scales, common repositories, timelines and the lack of comparable indicators (Ford et al., 2015). **Given these difficulties, it remains to be determined if the global efforts on adaptation are delivering the expected risk reductions and increased resilience.**



Analysing adaptation outputs, instead, can provide partial but valuable information about the progress being made. As the latest Adaptation Gap Report states, assessing adaptation outputs can help respond to the question *what are we doing to adapt?* (UNEP, 2021).

The first adaptation plans emerged in the early 2000s and since then significant progress has been made. Worldwide, 72% of the countries have at least one planning instrument for adaptation in place (UNEP, 2020). **In 2020, 68% of 28 reporting regions had already adopted an adaptation plan, and 21% were in progress of developing one. Overall, 27 regions reported taking concrete actions in adaptation which translated into more than 230 adaptation actions<sup>1</sup>.** This reveals the progress carried out so far, going from defining regional adaptation plans to implementing specific policies and measures.

While measuring implementation is difficult, certain criteria can be used to determine the likely effectiveness of an adaptation plan (Olazabal et al., 2019a). At the national level, the Adaptation Gap Report (UNEP, 2020) found that **almost 60% of adaptation plans are comprehensive in aligning adaptation strategies to priority sectors**, and 22% of them do it partially. **When looking at inclusiveness, 58% of the countries carried out consultation processes with diverse stakeholders and half of them stressed the importance of following gender-inclusive approaches.**

**Concerning implementability, less than one-third of the countries have assigned financial resources for adaptation and most of the resources are mobilised for mitigation.** Moreover, the report underlines that often developing countries have evaluated the costs and investment needs for adaptation, but do not have the resources needed to respond. **As for the use of policy instruments, only 28% of the countries use regulatory measures to promote adaptation.** For Regional governments, the instrument most used was climate plans and programmes, together with information and training initiatives, followed by regulation, legislation, and voluntary agreements (RegionsAdapt, 2019). **When looking at the way adaptation is integrated, 72% of countries have mechanisms for horizontal (sectoral) coordination, compared to 26% that include vertical coordination systems. This indicates a clear gap that needs to be addressed, as noted in the previous section.** According to RegionsAdapt latest disclosure report (2020), **89% of reporting regions were collaborating with their national counterparts, and all of them were coordinating with their local counterparts in developing and/or meeting each other's environmental-related targets, goals, and/or strategies.** Only 25%, however, reported to be collaborating in climate adaptation, compared to 43% that were collaborating in emissions reduction. Finally, one-third of the countries present **monitoring and evaluation** mechanisms in place. The analysis carried out among RegionsAdapt members reported that **50% of the regions have clearly defined monitoring and reporting systems for adaptation.**

Building on the **Landscape South Australia Act 2019**, the Government of **South Australia** launched **Green Adelaide** in 2020, an initiative which aims to create a cooler, greener, wilder, and climate-resilient metropolitan Adelaide (Box 5).

<sup>1</sup> Statistics from CDP Full States and Regions Dataset 2020.

**BOX 5 GREEN ADELAIDE INITIATIVE**


© Green Adelaide

**REGION: SOUTH AUSTRALIA****GDP (US\$)****81.5 B\$****POPULATION****1.7 MILLION****COUNTRY****AUSTRALIA**

Green Adelaide is a statutory board established in July 2020 by the government of South Australia with a vision to create a cooler, greener, wilder, and climate-resilient Adelaide that celebrates its unique culture.

Green Adelaide has been set up to be the first dedicated, urban landscape specialist. The board is helping to drive and guide Adelaide's love of and connection with nature, and to develop practically a greener, wilder, and cooler capital city. Green Adelaide spans across 17 metropolitan council areas and includes about a third of the Gulf St Vincent (a body of water off the coast of South Australia). Its mission is to encourage activities and policies for metropolitan South Australia that enable pro-environmental behaviour change through facilitating partnerships, investing in aligned initiatives, educating about nature, and delivering iconic on-ground environmental projects.

Green Adelaide has seven goals and four iconic projects. Green Adelaide's work is guided by these goals, while the iconic projects are multi-year, large scale projects which require multi-partners to achieve the vision.

Goals include:

1. Conserve and restore coastal and marine habitats and biodiversity;
2. Deliver social and cultural benefits through water resources;
3. Build industry and community capacity to design cooler and greener urban infrastructure;
4. Increase the extent and quality of urban green cover;
5. Conserve, restore, and expand habitats for native flora and fauna;
6. Manage the impacts of pests and overabundant native species;
7. Inspire communities to value, connect with, and care for nature.

Iconic projects include:

- Rewilding our urban landscape;
- Greening our streets, open spaces, and backyards;
- Making Adelaide the world's second National Park City (after London) - a cultural movement to better connect people with nature in an urban environment;
- Restoring Kurna (i.e. Traditional Aboriginal owners of the land) cultural practices.

**KEY FACTOR:**

MULTI-LEVEL  
GOVERNANCE FOR  
ADAPTATION



ADAPTATION  
FINANCE



IMPLEMENTATION,  
MONITORING AND  
REPORTING



MAINSTREAMING  
ADAPTATION


**REFERENCES:** GREEN ADELAIDE WEBSITE  
GREEN ADELAIDE'S 2020-21 BUSINESS PLAN  
DRAFT FIVE YEAR GREEN ADELAIDE REGIONAL LANDSCAPE PLAN

Scientific knowledge and transference is key to Quebec’s adaptation action: an innovation cluster of 450 researchers, experts, practitioners, and decision-makers, gathered through the consortium Ouranos’ projects which has been ongoing during the last 20 years, to actively contribute to improving climate adaptation in the region. Quebec has also adopted a 2030 Plan for a Green Economy that sets out targets and actions for reducing emissions and increasing resilience.

The department of Gossas (Senegal) developed a gender-inclusive project to increase resilience and health and to reduce ecosystem degradation through forest conservation and reforestation (Box 6). The Basque Country (Spain), for example, is increasing its implementation efforts through the Urban Klima Life project, which aims to deploy the region’s climate strategy. The project is a collaboration of the regional government, the provincial institutions, municipal councils, and five research and technology institutions (Box 7).

BOX 6

CONTRIBUTION OF GOSSAS TO THE IMPLEMENTATION OF SENEGAL’S NDC THROUGH THE COMMUNITY RESILIENCE IMPROVEMENT PROJECT



REGION: GOSSAS

GDP (US\$)

N/A

POPULATION

150 000

COUNTRY


SENEGAL


This project aims to strengthen the resilience of the population of the department of Gossas through the preservation of forest areas, reforestation, the creation of green spaces, and the use of renewable solar energy. The implementation is done through a set of actions which include raising awareness and training local actors.


The gender-inclusive project relied on women to preserve the department’s only forest by raising their awareness, providing them with improved stoves that allowed them to cook with less firewood, and by installing domestic biogas units that avoid the use of firewood altogether. This way, the initiative contributes to increasing the adaptive capacity of the local population, reducing ecosystem degradation through the restoring and conserving of vegetation cover, and improving health by reducing household consumption of firewood and charcoal.


A strong collaboration between the Department of Gossas and the national government that funded part of the project was key to the success of this initiative. The initiative contributed to the country’s NDC in relation to supporting local adaptation initiatives and mainstreaming adaptation.

KEY FACTOR:

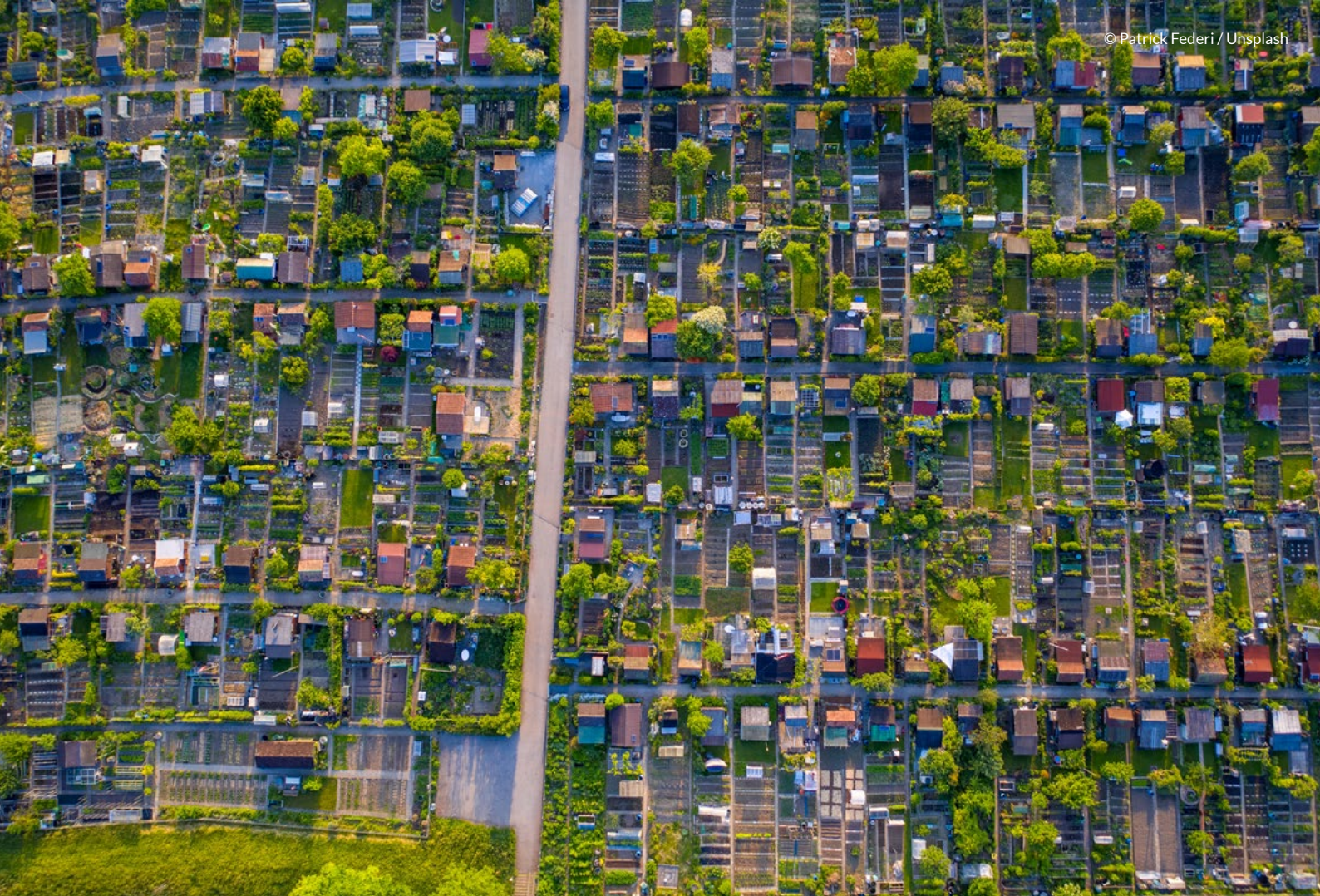
MULTI-LEVEL GOVERNANCE FOR ADAPTATION

ADAPTATION FINANCE

IMPLEMENTATION, MONITORING AND REPORTING

MAINSTREAMING ADAPTATION





# 5

## MOBILISING AND LOCALISING ADAPTATION FINANCE

There is overwhelming evidence that climate change threatens our natural, social, and economic systems. **Adaptation is increasingly recognised as necessary to avoid dangerous climate impacts, but lack of resources, particularly in developing countries, as well as lack of technical capacity, limited understanding of climate risks, and uncertainty or competing policy priorities, are some of the reasons that hamper investments in adaptation.**

First estimates of the costs of adaptation in developing countries ranged between US\$ 70-100 billion annually in the period 2010-2050 (World Bank, 2010). However, subsequent studies indicate that these estimates could be up to 2 to 3 times higher than reported (UNEP, 2016). **A recent study found that total adaptation costs in developing countries could vary between US\$ 50 and 180 billion per year in 2030 (50% confidence range).**

By 2050, these could increase to US\$ 90-290 billion or US\$140-450 billion, under low risk and high-risk scenarios, respectively (Chapagain et al., 2020). These adaptation costs could be substantially reduced, up to 75%, if ambitious mitigation policies are adopted.

Avoiding damages and protecting human lives and livelihoods is probably the most evident benefit, but implementing adaptation can yield additional types of benefits. These include: reducing background risk and fostering economic activity as well as providing various kinds of social, environmental, and economic co-benefits, such as biodiversity conservation, supporting sustainable development, or improving health (Surminski and Tanner, 2016).





© Basque Country / Unsplash

The Global Commission on Adaptation (2019) estimated that the benefits of adaptation may far exceed its costs: global investment in adaptation of US\$ 1.8 trillion in the current decade could result in more than US\$ 7 trillion in total net benefits.

Mobilising adaptation finance is, therefore, critical for increasing ambition and remains one of the core elements of Regions4 and RegionsAdapt advocacy activities for accelerating action, particularly in developing contexts. International finance for adaptation is increasing in the last few years, even if it is still considered to be insufficient to face the challenges ahead—particularly in more vulnerable countries. During COP15, celebrated in Copenhagen, developed countries agreed to provide US\$ 100 billion annually by 2020, to address mitigation and adaptation needs in developing countries (UNEP, 2021). However, total climate finance received by low- and middle-income economies fell \$3.5 billion in 2020, which represents an 8.4% reduction compared to 2019. If only UNFCCC-defined developing countries are considered, climate finance decreased by 2.2%. The COVID-19 crisis puts further constraints that need to be addressed in the recovery by supporting risk prevention/response planning and investments that include climate change.

Nonetheless, tracking financial efforts faces a number of problems, and it is not yet possible to define, categorise, and monitor international climate change finance and compare the effort of developed countries. The enhanced transparency framework under the Paris Agreement could help overcome this issue (Weikmans and Roberts, 2019). Regardless, international climate finance plays a key role in addressing this challenge and all actors must join forces. Moreover, in times of tighter fiscal constraints in industrialised countries, the private sector could play a relevant role in climate finance.

#### In this international context, how have regions responded to the challenge of financing adaptation?

Financial constraints are perceived by members of RegionsAdapt as the primary barrier for adaptation, followed by the lack of technical capacity and limited institutional capacity and regulation (RegionsAdapt, 2019). Subnational governments in developing countries declared that support from international donors were their main source of finance for adaptation. In contrast, most regions in industrialised countries reported that they make use of their resources, alone, or in combination with other national or international funding programmes.



For instance, the **Basque Country** is implementing its climate strategy through the Life project, Urban Klima, co-financed by the European Commission (Box 7). This project represents a direct investment of 19.8 million

euros, half of it (51%) co-financing by the European Union. Nonetheless, the project is expected to mobilise an additional 625 million euros for climate change adaptation and resilience in the region.

## BOX 7 URBAN KLIMA 2050, THE BASQUE REGION'S RACE TO RESILIENCE



© Ayuntamiento de Vitoria / CEA

REGION: **BASQUE COUNTRY**

GDP (US\$)

**83,398 M\$**

POPULATION

**2 199 711**

COUNTRY

**SPAIN**

**U R B A N  
K L I M A  
2 0 5 0**

Urban Klima 2050 is the largest climate action project developed in the Basque Country. It aims to implement the Climate Change Strategy of the Basque Country to 2050, KLIMA 2050, in the urban context. To this end, the project aims to advance climate governance at all administrative levels through the development of action plans linked to the strategy as well as to promote the integration of climate change in different sectoral policies, such as land use and urban planning, health, water resource management and energy. Urban Klima

2050 is a demonstrative and action-oriented project in which case studies are being developed as laboratories for adaptation to climate change. The application of organic farming, the renaturation of a dam, the creation of an urban marsh, or a flooded forest, are some examples of planned actions that will be implemented over 6 years.

The project, coordinated by the Basque Government's public environment agency, Ihobe, also involves the regional agencies and departments responsible for the management of water resources, energy, health, and ports. Other members of the project are the three provincial governments, 7 municipalities, and 5 research and technology centres.

The project represents a direct investment of 19.8 million euros through the EU-LIFE project and 51% co-financing from the European Union. In addition, the project is expected to contribute to mobilising an additional 625 million euros.

### KEY FACTOR:



MULTI-LEVEL  
GOVERNANCE FOR  
ADAPTATION



ADAPTATION  
FINANCE



IMPLEMENTATION,  
MONITORING AND  
REPORTING



MAINSTREAMING  
ADAPTATION

REFERENCES: [URBAN KLIMA PROJECT WEBSITE](#)

National governments can also support regions in accessing adaptation funding schemes, even though specific national financial instruments are not common, as reported by RegionsAdapt members (2019). With regards to economic instruments, carbon pricing mechanisms such as taxes and carbon markets are among the least used instruments by regions in implementing climate policies (RegionsAdapt, 2019),

despite that such mechanisms have a high potential to finance adaptation (Altamirano-Cabrera et al., 2010). A good example is Quebec, where carbon market profits of more than US\$ 3.9 billion have been used to finance businesses, municipalities, and citizens, and to implement emission reduction and climate adaptation measures (Box 8).

## BOX 8 PLANNING AND IMPLEMENTING QUEBEC'S ADAPTATION TO FUTURE CLIMATE



REGION: **QUEBEC**

GDP (US\$)

**365,400 M\$**

POPULATION

**8 570 000**

COUNTRY

**CANADA**

The Government of Quebec has reiterated its commitment to the Paris Agreement with the adoption of its 2030 Plan for a Green Economy, which involves an investment of more than US\$ 400 million for climate change adaptation. Quebec is pursuing a structured adaptation approach, focusing on prevention and future climate activities, and by targeting major risks, particularly those related to flooding, coastal erosion and submersion, extreme heat, and melting permafrost.

Scientific knowledge is a key pillar of the action on adaptation. Quebec has created, since 2001, through the consortium Ouranos' projects, a research consortium on regional climatology and adaptation to climate change. Ouranos is a network of 450 researchers, experts, practitioners, and decision-makers, and it has carried out more than 300 research projects in the fields of climate science, vulnerabilities, and impacts of climate change.

Since 2013, the revenues generated under the Quebec carbon market, which have been more than USD 3.9 billion, have been used to finance measures for supporting businesses, municipalities, and citizens to mitigate emissions and adapt to the impacts of climate change. These revenues have also been used to implement a range of climate cooperation initiatives aimed at building the capacity of the most vulnerable French-speaking countries, including the creation of the International Climate Cooperation Programme. This programme was the winner of the 2019 United Nations (UN) Global Climate Action Awards.

In order to realize an effective adaptation process, it is essential to rely on solid scientific knowledge which makes it possible to target the main risks and to act in a preventive manner, taking into account the future climate.

KEY FACTOR:



MULTI-LEVEL  
GOVERNANCE FOR  
ADAPTATION



ADAPTATION  
FINANCE



IMPLEMENTATION,  
MONITORING AND  
REPORTING



MAINSTREAMING  
ADAPTATION

REFERENCES: 2030 PLAN FOR A GREEN ECONOMY

CONSORTIUM ON REGIONAL CLIMATOLOGY AND ADAPTATION TO CLIMATE CHANGE, OURANOS

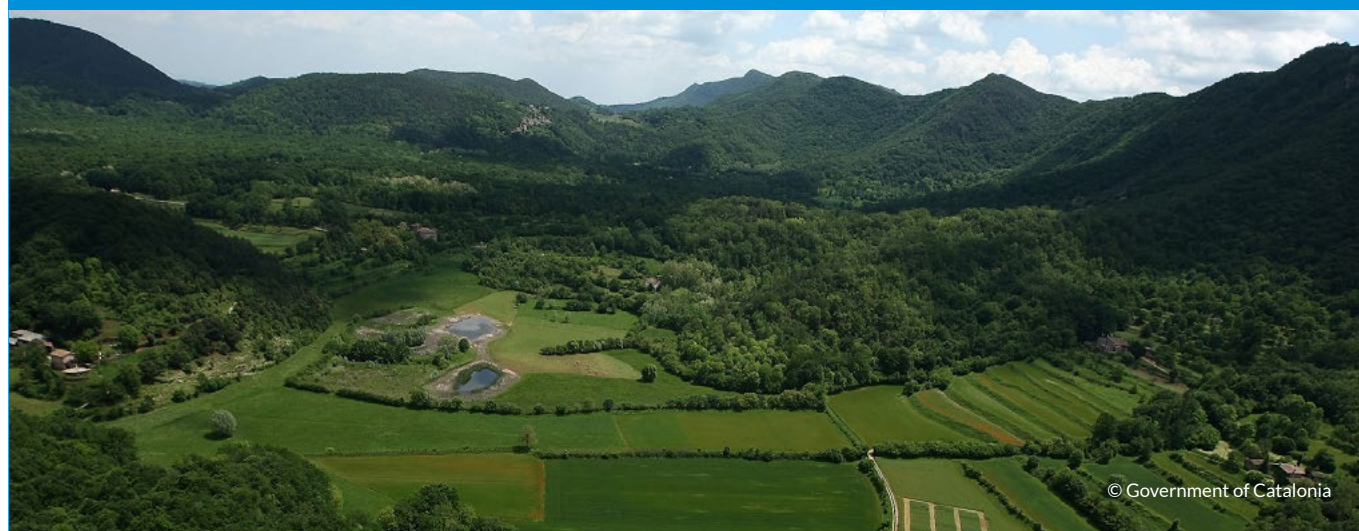


Regions like Catalonia provide good examples of mobilising finance for a post-COVID green recovery.

The Next Generation Catalonia document approved by the regional government includes 9 flagship initiatives, 16 outstanding projects and 114 business

projects presented by the administration, private companies, consortia and third sector entities for an ecological transition with expected investments of over €23.412 million in the period 2020-2032 (Box 9).

## BOX 9 LIFE CLIMARK BEYOND CARBON



REGION: **CATALONIA (CAT)**

GDP (US\$)

**236,814 M\$**

POPULATION

**7 670 838**

COUNTRY

**SPAIN**

Catalan forests absorb around 10% of the CO<sub>2</sub> emissions of Catalonia. A sustainable management of these forests could increase this capacity by up to 20%.

The Life CLIMARK is a new project that aims to contribute to the mitigation of climate change and increase the carbon sink capacity, prevent the forest fires, improve the runoff water and improve biodiversity conservation of the Mediterranean forests. It fosters the mitigating effects of a multifunctional and climate-smart forest management. It also offers access to new finance schemes, through the creation of a voluntary credit market that goes beyond carbon credits, integrating other factors such as water, biodiversity and fire prevention.

The Climate Credit facilitates investing in nature-based solutions as part of voluntary offsetting and corporate social responsibility initiatives. For woodlands managers and owners, it is a way to diversify income sources based on the benefits they provide for society. For investors, the framework of Climate Credit guarantees transparency and accountability, while also offering visibility and recognition.

Based on a forest management impact assessment, the Climate Credit takes into account the:

- Ability to absorb and/or conserve carbon stocks (in woodlands and in products)
- Improve runoff to increase available water
- Biodiversity conservation and enhancement
- Fire resistance and resilience

### KEY FACTOR:



MULTI-LEVEL  
GOVERNANCE FOR  
ADAPTATION



ADAPTATION  
FINANCE



IMPLEMENTATION,  
MONITORING AND  
REPORTING



MAINSTREAMING  
ADAPTATION

REFERENCES: [WEBSITE OF THE PROJECT](#)

An interesting mechanism that has emerged in some regions has been bilateral North-South cooperation in the context of climate change. The Welsh government, for example, in collaboration with the Africa programme which has been ongoing for more

than 10 years, aims to support the implementation of the SDGs by reducing deforestation, allowing for knowledge transfer and capacity building in other regions and communities such as in Uganda (Box 10).

## BOX 10 WELSH GOVERNMENT AND AFRICA PROGRAMME



REGION: **WALES**

GDP (US\$)

**365,400 M\$**

POPULATION

**3 700 000**

COUNTRY

**WALES – UK**

The vision of the Welsh Government and Africa programme is to support Wales in becoming a globally responsible nation through building and growing sustainable partnerships in sub-Saharan Africa that support the delivery of the UN's Sustainable Development Goals (SDGs). The programme supports dozens of small civil society groups who work with African partners on education, climate change initiatives, livelihoods, health, sport, and culture projects promoting well-being in both Wales and in African communities.

The Mbale Trees is a flagship collaboration initiative of the Welsh Government, the Mount Elgon Tree Growing Enterprise, and partners in the Mbale Region of Eastern Uganda. For over 10 years, and since the programme started, 15 million trees have been distributed. The project seeks to support communities by distributing 3.1 million trees every year—one for every person in Wales—with the ambition of reaching 25 million trees by 2025. It also seeks to engage people of all ages on climate change and the importance of trees and forests as part of the solution.

The programme also supports the Plant! scheme which is now in its 10th year. Plant! celebrates the birth of every child born or adopted in Wales by planting two trees: one in new Welsh woodland and the other, a fruit tree, in Mbale (Uganda). This practice ensures both trees for future generations, while also nurtures a close personal relationship with nature from an early age.

Concerning capacity building, the International Learning Opportunities programme has provided nearly 200 people from Wales with 8-week placements in either Lesotho, Uganda, or Namibia, which have assisted partner organisations with their efforts to deliver aspects of the UN Sustainable Development Goals. Participants report gaining considerable confidence and experience whilst also contributing to the delivery of projects with real value.

In recent years, the overall Wales and Africa Programme have offered dozens of small grants to Wales-based organisations with partners in sub-Saharan Africa in support of SDG delivery. Since the COVID-19 pandemic, larger grants have been made available to support various COVID responses.

### KEY FACTOR:



MULTI-LEVEL  
GOVERNANCE FOR  
ADAPTATION



ADAPTATION  
FINANCE



IMPLEMENTATION,  
MONITORING AND  
REPORTING



MAINSTREAMING  
ADAPTATION

REFERENCES: **WALES AND AFRICA PROGRAMME** [WEBSITE](#)



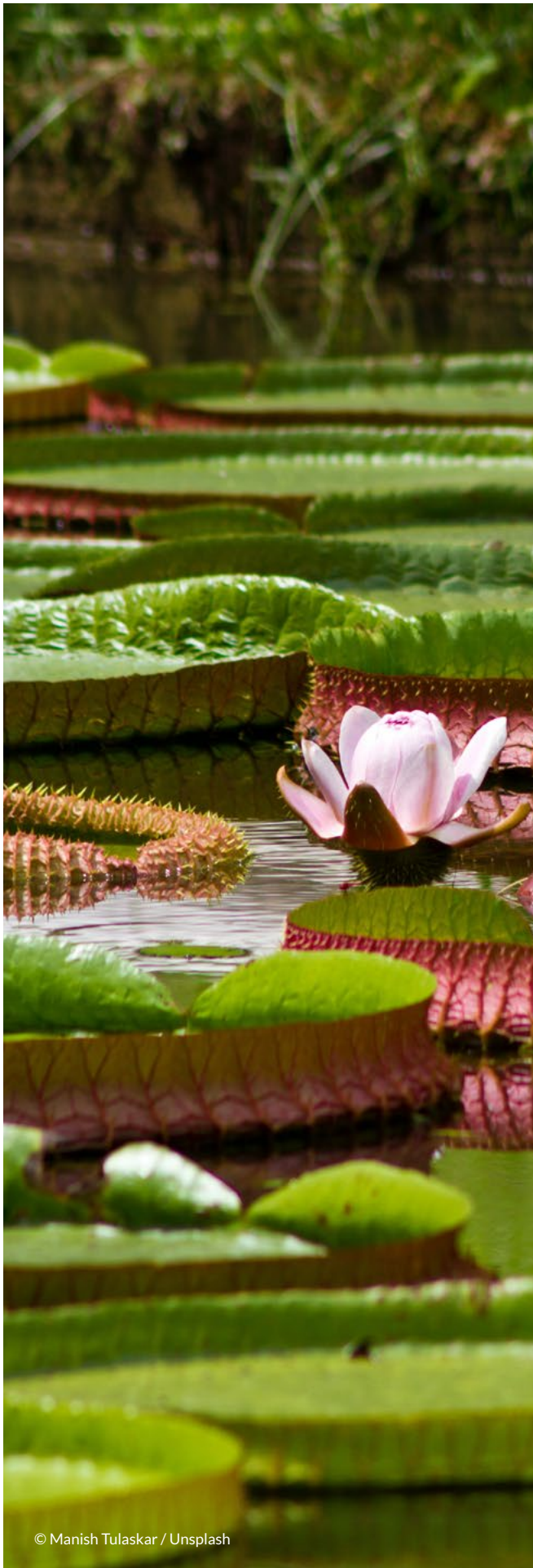


## 6

# MAINSTREAMING ADAPTATION INTO OTHER GLOBAL AGENDAS AND SECTORAL POLICIES

The Paris Agreement adopted in December 2015 represents a turning point in international climate policy. The same year also proved to be key for other global challenges: in March, the Sendai Framework for Disaster Risk Reduction 2015-2030 was adopted, and in September, the Sustainable Development Goals (SDGs) were adopted as part of the 2030 Agenda for Sustainable Development. Although each framework agreement has its own particulars, they all address interrelated, global problems. All three agreements include mutual references and adaptation to climate change as one of the main objectives. In addition, the interrelationship between climate change and ecosystems should also be considered.

A recent report by experts from the IPBES and the IPCC warned that climate change represents a threat to natural ecosystems and the services they provide; at the same time, current rates of biodiversity loss and degradation can affect climate change, particularly through the impacts on nitrogen, carbon, and water cycles. Therefore, addressing climate change and biodiversity together represents an opportunity to magnify synergies and contribute to sustainable development (Pörtner et al., 2021). Precisely, forestry, protected areas, and biodiversity was the top priority area reported by RegionsAdapt members, followed closely by resilience and disaster risk reduction and water management, agriculture, infrastructure and land planning, economic and social impacts (2020).



© Manish Tulaskar / Unsplash

Some studies have addressed the benefits and challenges of integrating global international agendas (e.g. Kelman, 2017). **Integration focused on common core elements could bring important benefits in terms of enhanced policy coherence, increased efficiency, and effectiveness.** Aligning the different agendas in a more **coherent** way means, on the one hand, avoiding actions that benefit one agenda at the expense of another. On the other hand, **enhanced policy coherence is also about identifying actions that contribute positively to the different agendas.** For example, development actions should be defined taking into account current and future climate risks and vulnerabilities to avoid maladaptive situations.

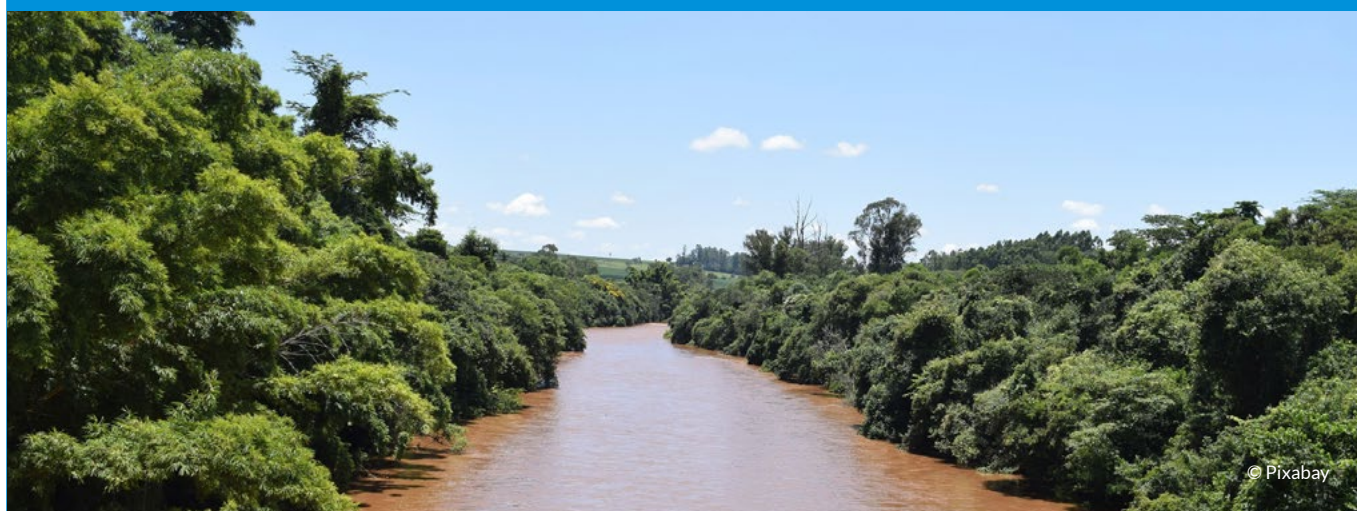
Addressing the four global agendas in an integrated manner also allows for **more efficient use of often limited human, technical, and financial resources.** Such efficiencies can occur in the generation and sharing of data and information, for example. Addressing these agendas can foster collaboration and learning among technical managers who often work in silos as well as be useful in identifying best practices and responses to common problems. **The integration of the four agendas can also result in greater effectiveness, as progress on one agenda can translate into progress on the other agendas as well.** This is easy to understand if we recognize that adaptation policies can go beyond minimising the impacts of climate change, for example, through reducing the vulnerability of people and communities, favouring sustainable development, improving biodiversity or increasing resilience to disaster risk (UNFCCC, 2017). **Regional governments are involved in activities that contribute directly to all four agendas, and thus, engaging with them on these topics is key to take stock of ongoing work, pool resources and expertise, identify gaps, and exchange ideas and best practices.**



**Mainstreaming adaptation into other key global agendas can be achieved through common themes or topics.** For example, ecosystems and vulnerable communities are at the core of the SDGs and the Sendai Framework. Regional governments provide good examples of how to integrate climate adaptation into other global agendas and sectoral policies, around

ecosystem restoration and improving the conditions of vulnerable communities. The government of **São Paulo**, in Brazil, has promoted a programme to ensure water security and protect biodiversity through the restoration of native forest. The initiative also aims to promote sustainable forestry that guarantees income for small producers (Box 11).

### BOX 11 NASCENTES PROGRAMME: WATER SECURITY AND BIODIVERSITY, PROMOTING AND ENCOURAGING THE PLANTING OF NATIVE FORESTS FOR ECONOMIC USE



REGION: **SÃO PAULO**

GDP (US\$)

**568,000 M\$**

POPULATION

**43 000 000**

COUNTRY

**BRAZIL**

Launched in June 2015 by the government of São Paulo, the Nascentes programme is the most innovative initiative to address one of the worst water scarcity crises to hit São Paulo, directly impacting public water supply. The initiative is São Paulo's first major Ecosystem-based Adaptation (EBA) project and combines biodiversity protection with water security.

The objective of the programme is to protect water supply springs and degraded areas by promoting and encouraging the planting of native forests for economic use. This will also guarantee income for small producers. The restoration goal of 20,000 ha, with more than 33 million seedlings planted, was exceeded in 2020, and more than 400 municipalities benefited.

The program encompasses voluntary planting and compliance with legal obligations, and its development included the setup of several instruments, including the Bank of Available Areas for Restoration, the Shelf of Projects approved by the state, and the Conversion of fines into environmental services. The initiative relies on a large partnership of small landowners and large companies, the state government, as well as on the direct participation of several state secretariats, municipal governments, and non-governmental entities.

#### KEY FACTOR:



MULTI-LEVEL  
GOVERNANCE FOR  
ADAPTATION



ADAPTATION  
FINANCE



IMPLEMENTATION,  
MONITORING AND  
REPORTING



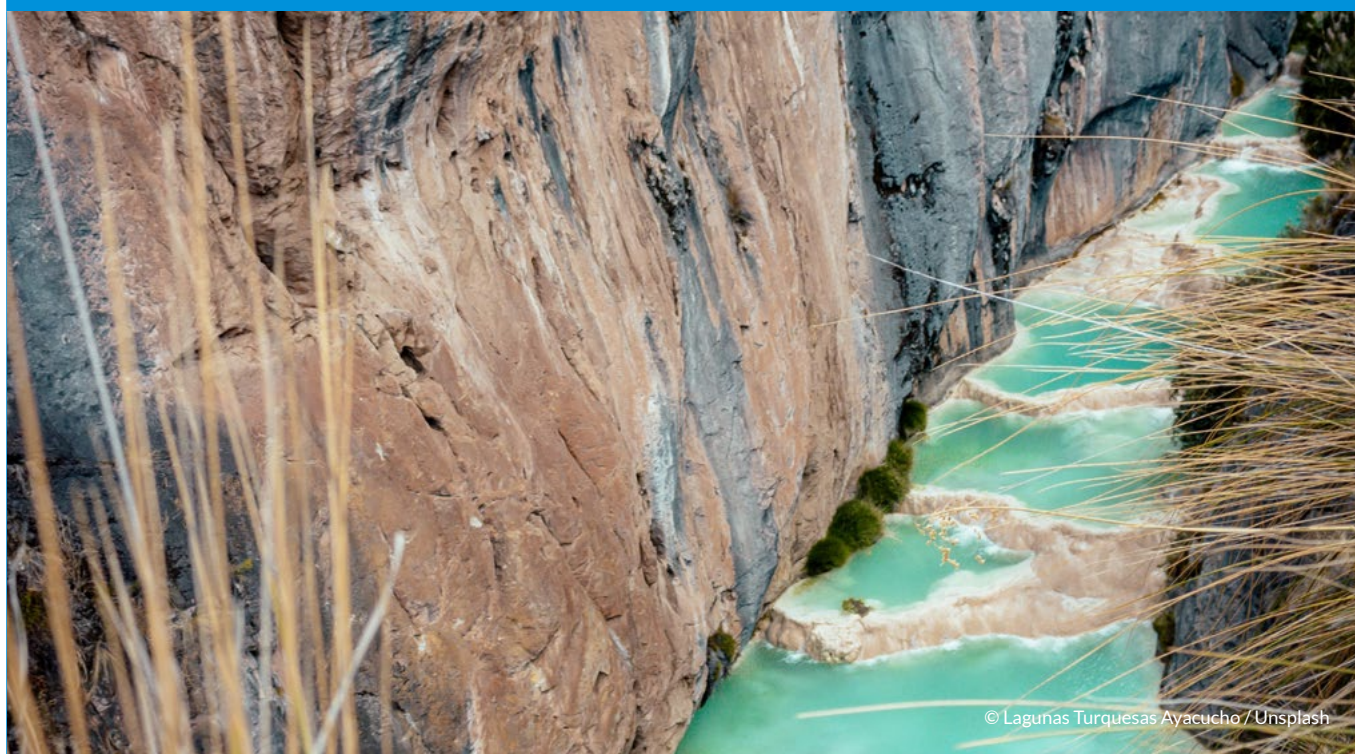
MAINSTREAMING  
ADAPTATION

REFERENCES: **PROGRAMA NASCENTES** (EBOOK)

Another initiative to improve water regulation through the restoration of forest cover, in combination with the design of artificial reservoirs, has been promoted by the government of **Ayacucho** and the Regional

Mancomunidad of the Andes. The aim of this initiative is to increase resilience in agriculture in times of low-flows, as well as to train local communities in the sustainable use of natural resources (Box 12).

## BOX 12 RECOVERY OF THE ECOSYSTEMIC SERVICES OF WATER REGULATION IN THE TRIBUTARY MICRO-BASINS OF THE RIO GRANDE IN LUCANAS



© Lagunas Turquesas Ayacucho / Unsplash

REGION: **AYACUCHO**

GDP (US\$)

**3,243 M\$**

POPULATION

**616 000**

COUNTRY

**PERÚ**

The objective of this initiative, developed by the Regional Mancomunidad of the Andes, is the recovery of the water regulation capacity in the Huac Huas, Llauta, Laramate, Ocaña, San Pedro de Palco, Otoca, Leoncio Prado, Saisa, Santa Lucia, and San Cristóbal micro-watersheds, tributaries of the Rio Grande in Lucanas-Ayacucho.

In order to meet this objective, actions have been carried out to recover the forest cover in the headwaters of the watersheds, to create artificial reservoirs for rainwater storage, and to train the beneficiary populations in the sustainable management of natural resources. These activities promote the resilience of agriculture during droughts or low-flow periods, sustaining the local economies, and contributing to the sustainable use of natural resources, such as forest products.

The Regional Mancomunidad of the Andes is the result of the association of the regional governments of Apurímac, Ayacucho, Huancavelica, Ica and Junín, which have worked in collaboration with several city councils from south Ayacucho, together with local rural communities, to implement this project that involved a direct investment of US\$ 3.9 million.

### KEY FACTOR:



MULTI-LEVEL  
GOVERNANCE FOR  
ADAPTATION



ADAPTATION  
FINANCE



IMPLEMENTATION,  
MONITORING AND  
REPORTING



MAINSTREAMING  
ADAPTATION



## 7

## LESSONS LEARNT AND RECOMMENDATIONS TO RAISE AMBITION AND BUILD RESILIENCE

COP26 calls for an increase of ambition by all actors, including regional governments. As countries continue to grapple with COVID-19, the year 2021 offers an unprecedented opportunity to establish resilient, sustainable, and green post-recovery economies.

The past 5 years have seen more recognition of the importance of adaptation within climate processes, programs, and financing than ever before. Regional governments are moving these transformations forward, from the planning of adaptation and resilience to the actual implementation of these plans. They have developed at scale and replicable innovative solutions that look at transitioning towards resilient economies and territories.

Enabling an effective collaboration between local and regional governments with national authorities and other stakeholders, through real co-design and co-production processes, will be key to achieving the climate targets adopted in the Paris Agreement.

Based on the evidence and the experiences from RegionsAdapt members over the past 5 years, we have identified **four lines of action** that could contribute to increased ambition and accelerated action on adaptation.



## 1. Driving systems change towards multi-level Governance

- There is evidence of the potential of regional governments and other non-state actors to increase climate action across scales. To maximise their potential, it is crucial to involve regional governments in the design, coordination, and implementation of NDCs, and National Adaptation Plans (NAPs).
- Adaptation needs to be planned, implemented and monitored at all levels of governance.
- Involving regional governments in national adaptation planning processes can help overcome narrow sectoral views of adaptation and promote a more integrated approach. Regional governments can also act as nexus between the local and national levels.

## 2. Planning and implementing adaptation

- Increasing ambition on adaptation requires more and better planning, implementation, and monitoring of adaptation. This will contribute to advance adaptation deployment, measure progress and evaluate its effectiveness in reducing vulnerability and facing climate risks.
- Regional governments are increasingly developing plans and resilient actions that allow for collaboration across levels of government, involving different stakeholders and actors to avoid leaving no one behind. Many RegionsAdapt members have valuable lessons to share on enabling institutional, financial and technical mechanisms for adaptation.
- The reviewed NDCs and national adaptation plans should allow for more collaboration between actors and sectors, with joint, amplified, and measurable ambitions on adaptation.



### 3. Financing adaptation

- Mobilising adaptation finance is unavoidable and urgent. The evidence shows that in the absence of strong mitigation efforts, adaptation costs in developing countries by 2030 could reach US\$ 50-180 billion per year. Nonetheless, the benefits of adaptation in terms of avoided damages and further co-benefits are likely to be three times larger.
- At the same time, financial constraints are perceived by members of RegionsAdapt as the primary barrier for adaptation, followed by the lack of technical capacity and limited institutional capacity and regulation.
- Localising international climate finance mechanisms, such as the Green Climate Fund or Development Banks, would be critical to support the role of regional governments in planning, implementing, and monitoring adaptation action.
- Allowing for investments to be deployed and targeted towards developing countries and at the regional and local levels is essential.
- Still, some regional governments are developing their own innovative financial mechanisms for adaptation, ranging from taxes and direct investments, to bilateral cooperation.

### 4. Mainstreaming adaptation into other global agendas and sectoral policies

- Mainstreaming climate change into other global agendas, such as the Sustainable Development Goals, the Sendai Framework for Disaster Risk Management, or the agenda to halt biodiversity loss represents an opportunity to exploit synergies and contribute to sustainable development.
- Aligning NDCs and NAPs with the SDGs would allow for policy coherence that can be translated at regional and local levels.
- One way to facilitate this integration is through common topics or challenges, such as biodiversity loss, gender, or the protection of vulnerable communities. Regional governments, particularly in developing countries, provide evidence of initiatives designed to address multiple challenges.

## 8

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Since 2002 Regions4 has worked to bring the voice of regional governments to the main global processes and events on sustainable development. Today, our growing network of subnational leaders serves as a major advocacy platform to increase **recognition of regional governments, share knowledge, and cooperate** to develop transformative solutions to climate change and biodiversity loss, with the 2030 Agenda as our roadmap **to ensure a sustainable and resilient future for all.**

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