



Programme of exchanges in EU Outermost Regions (OR)

Compendium of good practices and solutions of
climate change adaptation in the Outermost
Regions of the EU

Executive Summary (English)

The **EU Outermost Regions**, the most remote parts of the EU located in the Atlantic Ocean (Macaronesia), in the Caribbean Sea and South America, and in the South-West Indian Ocean, are particularly vulnerable to the adverse effects of climate change due to their geographical characteristics.

These regions face increasing challenges in preparing and adapting their societies to the threats posed by climate change, challenges which they share with their neighbouring third countries and territories. In this context, to support the Outermost Regions in addressing such challenges, the Directorate-General for Regional and Urban Policy of the European Commission launched a **programme to foster exchanges on climate change adaptation between the EU Outermost Regions and their neighbouring countries and territories**.

The EU seeks to provide tailored specific measures to support the Outermost Regions in line with the provisions of the Treaty on the Functioning of the EU (Article 349¹). In this context, the European Commission adopted in 2022 a Communication² “Putting people first, securing sustainable and inclusive growth, unlocking the potential of the EU’s Outermost Regions” to support these regions. This Communication notably underlines the Outermost Regions’ vulnerability to climate change, which is also stressed in the EU Strategy on Adaptation to Climate Change³ and in the Green Deal Communication⁴.

The programme of exchanges on climate change adaptation between the EU Outermost Regions and with their neighbouring third countries therefore aimed to discuss common climate adaptation challenges and identify common good practices and solutions. The objective was to enhance cooperation within the same geographic basin and identify innovative initiatives that could be replicated in each basin and beyond.

The programme consisted of nine online workshops and one presential workshop, which brought together a wide range of stakeholders from the three basins: Caribbean-Amaozonia, Macaronesia and South-West Indian Ocean. At these workshops, stakeholders (including academic and specialised institutions, regional governments and municipalities, project leaders and other key stakeholders) presented a number of projects and initiatives. By fostering such discussions, several outstanding practices and solutions have been identified and are presented in this compendium.

Definitions and scope of the exchange programme

In the EU Strategy on Adaptation to Climate Change and the EU Biodiversity Strategy, climate change adaptation is defined as “policies, practices and projects which can

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A12012E349>

² European Commission (2022). Communication “Putting people first, securing sustainable and inclusive growth, unlocking the potential of the EU’s Outermost Regions”. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0198>

³ European Commission (2021). Communication “Forging a climate-resilient Europe – the new EU Strategy on Adaptation to Climate Change”. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:82:FIN>

⁴ European Commission (2019). Communication “The European Green Deal”. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52019DC0640>

moderate damage, improve resilience and/or realise opportunities associated with the impacts of climate change at all levels of society”.

As such, the good practices and solutions included within the programme of exchanges were those which set out to **prevent** and **minimise** the impacts of climate change on people and the environment, as well as **address** its consequences. Further selection criteria were also developed to enable the appropriate identification of good practices and solutions within the programme of exchanges, such as innovativeness, replicability, transferability, effectiveness and cross-border cooperation.

An initial **mapping and analysis** of projects was conducted following these considerations and objectives. Afterwards, the workshops identified and discussed various projects, solutions and initiatives.

Aim and approach for developing a compendium of good practices and solutions

The present compendium aims to showcase good practices and solutions that have demonstrated key strengths, such as innovativeness, replicability, transferability, effectiveness and cross-border cooperation, and as such, provide a valuable input to Outermost Regions and neighbouring third countries.

The compendium of good practices and solutions of climate change adaptation is divided in **three parts**. **Part I** of the compendium provides a detailed context on the current environmental, social and economic constraints that Outermost Regions face, which compromise their resilience to climate change related effects. **Part II** introduces **eleven solutions and practices** which are particularly relevant for the Outermost Regions. These solutions have been carefully selected to correspond and align with the challenges outlined in Part I. **Part III** presents the conclusions of the compendium and of the overall programme.

Part I - Key challenges faced by Outermost Regions

This part provides a comprehensive overview of the barriers encountered by the Outermost Regions when implementing adaptation policies and solutions. These barriers, namely structural issues as well as the insufficient investment on infrastructure and local skills to address all the challenges faced, make Outermost Regions particularly vulnerable to the increasing severity and frequency of extreme weather events and rising sea levels, among other hazards. Furthermore, and given the exceptionally high biodiversity value in the Outermost Regions, there is a pressing need to equip them with applicable and innovative solutions.

The workshops focused on different themes which dealt with key challenges found in the Outermost Regions. Part I provides a comprehensive overview of the key challenges in respect to climate change in **six areas**: agriculture, biodiversity, extreme weather events, risk management in coastal areas, tourism and water management.

Main findings indicate that climate change impacts are threatening the resilience of the **agricultural** sector in the OR, as the rise in temperatures, the shifting of seasonal patterns and the reduced availability of water resources are aggravating agricultural yields and soil fertility. In addition, it has been observed that there is a need to support

and build the capacity of relevant actors, including policymakers and farmers, through trainings and incentives, to implement adaptation solutions.

Biodiversity is also facing intense pressure from the greater vulnerability of Outermost Regions to climate change. Although nature-based tourism is increasing in popularity, inherent human activities related to tourism are exacerbating nature and ecosystems. In addition, marine biodiversity is also projected to keep decreasing as water temperatures rise and ocean acidification increases.

The Outermost Regions are also particularly exposed to **extreme weather events**, which have become increasingly frequent and intense over time due to climate change. Despite the increased awareness of climate change-related extreme weather risks, particularly for coastal areas¹, more specific actions are needed to address the risks to human safety and infrastructure. In this regard, the adaptation capacity varies depending on the economic sectors and the stakeholders' investment capacities.

Risk management in coastal areas has also become one of the most pressing challenges for Outermost Regions. These risks include greater incidence of coastal erosion, flooding, cyclones and intensified rainfall, which pose a major threat to the long-term sustainability of coastal communities, economies and natural and cultural heritage. Due to the increasing risks from serious disaster-related climate problems, coastal areas need to increase resilience and mitigation efforts.

The resilience of the Outermost Regions' economies also depends on the development of the **tourism sector**, which is under increasing pressure from climate change, particularly after the COVID-19 pandemic. Climate adaptation and resilience building measures are needed to ensure the long-term survival of small and medium enterprises (SMEs). In addition, trends show how nature-focused tourism is growing in popularity, and regions need to ensure that this emerging type of tourism does not have a negative impact on biodiversity and natural heritage.

Finally, **water management** is an area that faces growing challenges. Climate change impacts are exacerbating challenges related to water resources and water management and posing significant issues to the access and use of water. Therefore, it is essential that social, economic and demographic aspects are taken into account in implementing sustainable water management measures.

Part II - Solutions and practices

This part provides a collection of **eleven solutions and practices** that can be applicable and transferable to Outermost Regions and their neighbouring third countries. These solutions have been identified in alignment with the challenges and themes presented in Part I. Each solution is the product of extensive research, experience, regional expertise and lessons learned from a number of projects and initiatives by regional institutions which have devoted their efforts to shape an adaptation solution to various challenges. For each solution, a project example is presented, showing how the solution can be

⁵ As underlined by the Sixth Assessment Report of the Intergovernmental Panel on Climate Change
<https://www.ipcc.ch/report/ar6/wg2/>

designed and implemented on the ground. More detailed information is presented in the Annex which includes a library of the projects.

The **eleven solutions and practices** identified are presented as follows:

Solution 1: Promotion of participatory and technological approaches in **agricultural practices** to optimise the use of natural resources.

The **promotion of participatory and technological approaches** has been particularly effective in **agricultural practices to optimise the use of natural resources**. By supporting farmers and agricultural workers in deploying technological innovations through participatory approaches, the optimisation of natural resources is increased. Participatory approaches involving the specific actors are fundamental as they can help to identify the needs of local communities and provide capacity and resources accordingly.

Solution 2: Transferability of measures at a local and regional scale in the **agricultural sector**.

For the Outermost Regions to effectively implement adaptation solutions, particularly in the agricultural sector, a sound understanding of regional specificities is considered particularly helpful. In this regard, the active promotion and implementation of transferable measures at regional scale enables the mobilisation of local actors and partners around a set of objectives and expectations. As such, understanding the regional policy framework of the region will enable an effective transferability of measures at a local scale, equipping farmers with adaptation solutions that are tailored to regional regulations. Projects exhibiting this solution have contributed towards the identification of favourable and limiting factors that can be replicated to other sectoral contexts across OR.

Solution 3: Promotion of biodiversity friendly **tourism** policies and regulations.

Biodiversity friendly tourism is important to mitigate the intense pressure on certain habitats and ecosystems of Outermost Regions, which hold a great biodiversity value. To ensure that biodiversity friendly tourism expands and becomes increasingly frequent in these regions, there is a need to raise awareness through policies and regulations. Projects using this solution have provided new resources and services focused on sustainability with innovative territorial marketing strategies that are based on the valorisation of the region and municipality's natural and cultural heritage.

Solution 4: Promotion of nature-based climate adaptation solutions by local governance and society.

Encouraging and empowering regional and local actors is fundamental for their contribution on the ground in promoting biodiversity restoration and protection, as they are well placed to implement cost-effective nature-based solutions that foster ecosystem restoration and enhance climate resilience across various domains. To translate this solution into reality, actions have been undertaken, including networks where cross-cutting actions address a number of threats towards biodiversity.

Solution 5: Integration of accessible and tailored communication tools to raise awareness and educate local people.

To effectively communicate on the increasing importance of climate adaptation measures, it is fundamental to tailor the message in a way that is both accessible and relevant to the local population. Providing concrete examples that relate to their specific circumstances encourages individuals and communities to actively engage in the transition towards climate resilience. In addition, communication and messages designed for this purpose must take into account the needs and perspective of businesses, tourists and other key stakeholders in the region. When implementing this solution, projects have strengthened crisis preparedness through regional coordination and risk awareness strategies.

Solution 6: Introduction of integrated approaches for the adoption of climate adaptation and mitigation measures in territorial planning.

Territorial planning presents several opportunities for the mitigation of extreme weather events and the inclusion of adaptation measures to the everyday lives of communities. Integrated approaches can encompass both climate adaptation and mitigation, generating a compound benefit to the Outermost Regions. These integrated approaches are already being implemented in various Outermost Regions through a project that promotes energy autonomy and independence to increase overall resilience against climate change.

Solution 7: Setting up of networks and capacities for the exchange and improved access to practices, studies, information and data.

The establishment of networks covering several areas plays an essential role in the development of comprehensive solutions, as wide-reaching problems require intersectional responses across different disciplines and actors. In order to achieve this, regional platforms have been created, serving as repositories of information on practices, challenges, opportunities and trends. The active functioning of these platforms promote involvement and facilitate exchanges among stakeholders, enhancing data accessibility which can enable advancements such as more precise modelling for sea-level rise scenarios.

Solution 8: Development of the protection and restoration of ecosystems to contribute to the resilience of coastal areas.

For coastal areas to increase their resilience to the threats posed by climate change, the scientific community and technology need to step up and evolve to adapt existing tools and models to the constantly changing characteristic and nature of extreme weather events. Therefore, projects showcased in this compendium have developed digital models for the analysis of extreme weather events, which allow scientists to estimate and evaluate the current and future impact of these phenomena in Outermost Regions.

Solution 9: Promotion of cost-effective climate adaptation and resilience measures.

The promotion of climate adaptation and resilience measures must go hand in hand with the increasing growth and competitiveness of businesses, which are already accepting the adoption of such measures thanks to their cost-effectiveness. The active promotion of cost-effective climate adaptation and resilience measures encourages businesses to engage and contributes to achieving adaptation goals in local economies.

Solution 10: Implementation of resilient practices for climate change adaptation **in the tourism sector**

The sustainability of the tourism sector in Outermost Regions highly depends on the effects that climate change has over the stability of a particular region. In regions where tourism activities and infrastructure are being affected by climate change, good practices have emerged to develop local adaptation funds to finance innovative adaptation actions and design economic models to assess the impacts of climate change in the tourism sector.

Solution 11: Setting-up of networks and capacity to exchange and better access studies, information and data related to water management.

As previously stated, water management is becoming an increasing challenge that particularly impacts Outermost Regions due to their remote and (mostly) insular location. Due to their geographical isolation, access to freshwater is frequently limited and the management of available water resources is sensitive. To address this challenge, networks have been established to exchange and improve the accessibility of practices, information and data. In this way, the dissemination of practices, for example on the management and supply of drinkable water, is now possible.

Part III – Concluding remarks

Overall, from the programme of exchanges and the compendium of good practices and solutions of climate change adaptation in the Outermost Regions of the EU, six key interrelated conclusions and takeaways emerge:

1. The EU Outermost Regions have shown to be particularly exposed and vulnerable to climate change related hazards, owing mainly to their inherent insularity and remoteness.
2. Thanks to their unique assets - their biodiversity, oceans, geology and climate - the Outermost Regions also have the potential to be living laboratories for piloting innovative climate adaptation solutions.
3. Projects and initiatives across the Outermost Regions, and neighbouring third countries, are developing cutting-edge and collaborative climate adaptation solutions encompassing multiple critical sectors, providing an invaluable wealth of good practices that can also be transferred and implemented in different contexts in the Outermost Regions and in their neighbouring third countries.
4. The identified practices and solutions demonstrate how **projects** on climate change adaptation - most **of which are EU-funded**, as shown in Part 2 of the Compendium - are concretely supporting the implementation of the objectives of a number of EU strategies.
5. A broad variety of EU funding streams have supported the development and implementation of climate change adaptation practices and solutions in the EU Outermost Regions and their neighbouring countries and territories.
6. Looking ahead, the projects identified in this programme of exchanges and the compendium itself provide a sound benchmark on how to design and implement common practices and solutions.