

WB6 CLIMATE ADAPTATION ROADMAP



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MAIN OBJECTIVE OF WB6 CLIMATE ADAPTATION ROADMAP

The WB6 Climate Adaptation Roadmap serves as a preparatory document for development of the WB6 Adaptation Strategy.

Its aim is to provide a common foundation to guide both regional and domestic-level efforts in strengthening resilience to climate change. The Roadmap provides targeted recommendations, outlines key strategic directions, enhances policy coherence, and supports the integration of adaptation in all sectors and levels of governance.

The Roadmap is designed to align with the EU Adaptation Strategy and the European Climate Law, while responding to the specific vulnerabilities and institutional challenges across the Western Balkans Six (WB6).

It identifies priority areas for intervention, establishes a basis for strengthened regional coordination, and recommends a focused and actionable set of adaptation measures, grounded in scientific evidence and informed by stakeholder consultations.



1. STRATEGIC FRAMEWORKS

Global warming rate is far beyond natural variability, and the rapid increase in the frequency and intensity of extreme weather events and their impacts requires urgent action. Mitigating climate change risks would save lives, economies and natural environment. Global warming has now surpassed the 1.5°C threshold, marking a critical turning point in a global state of climate that threatens the achievement of the Paris Agreement's objectives¹. Reducing climate risks requires actions both to reduce the greenhouse effect in the atmosphere and strengthen the resilience to climate change. Mitigation of climate change means slowing down global warming, and eventually stabilise the climate, by reducing net greenhouse gases (GHG) emissions. Adaptation, on the other hand, focuses on increasing the resilience to climate change and includes mitigation (reduction) of climate change impacts. These two approaches are deeply interconnected: if global mitigation efforts succeed and the Paris Agreement targets are met, adaptation measures are expected to be fully effective. However, if global GHG concentrations continue to rise, the severity of climate impacts could exceed the capacity of current adaptation systems, leading to irreversible losses and damages.² Delayed adaptation will further escalate costs and inflict harm on human health, economic sectors, and ecosystems. Therefore, **coordinated implementation of mitigation and adaptation** is essential. Adaptation measures should, where possible, also contribute to mitigation goals (e.g. Nature-based Solutions), while mitigation actions must be resilient to the effects of a changing climate. Mitigation of climate change will be effective in case global joint efforts for reduction of global GHG emissions are successful. Adaptation actions are effective at the level of their implementation, and thereby are of greater interest in domestic-level and regional strategic planning. They are actions of "no regret"- they bring benefits regardless of future climate scenarios, and, due to the increasing damage and loss recorded from climate change, response of governments, science and people is urgent to ensure resilient development pathways.

The WB6 region is already experiencing the impacts of climate change at a pace that exceeds the global average. The rise in average temperatures has surpassed 20th-century records, accompanied by longer and more severe heatwaves and droughts, and by changes in precipitation patterns with increase in extreme precipitation events.^{3,4} Other intensifying climate hazards in the region include fires, floods, landslides, etc. These trends are projected to increase by the mid-century period. In the second half of the 21st century, these changes will either stabilise or accelerate, depending on the future global GHG emissions.

The region's high vulnerability to climate change is further exacerbated by the high sensitivity of its economic sectors and public health systems, other socio-economic factors (incomes, living conditions), and the fragility of biodiversity. These vulnerabilities are compounded by insufficient institutional preparedness and limited adaptive capacity.

1 <https://climate.copernicus.eu/global-climate-highlights-2024>

2 <https://www.ipcc.ch/report/sixth-assessment-report-cycle/>

3 <https://www.eea.europa.eu/en/analysis/publications/european-climate-risk-assessment>

4 <https://www.worldbank.org/en/region/eca/publication/western-balkans-6-ccdr>



Lack of adaptation policies and financing has become a critical concern of a global scale. This was recognised at the UNFCCC COP29, and parties are called to speed up the actions to strengthen investments in resilience to climate change to avoid large damages and losses⁵.

In response, the WB6, under the Green Agenda for the Western Balkans (GAWB)⁶ Action Plan⁷, have committed to developing a regional WB6 Adaptation Strategy by 2026, aiming to enhance regional resilience to climate change by 2030. The long-term vision is to achieve a fully climate-adapted WB6 by 2050. However, achieving the climate change resilience under the conditions of future climate change, in any future scenario of GHG emissions, can only be achieved through development of an efficient adaptation process, which evolves and adjusts according to the new scientific results and solutions. Establishment of a **monitoring and evaluation (M&E) system** for adaptation actions is essential to ensure the effectiveness and continuous improvement of the adaptation process. The WB6 Adaptation Strategy is intended to align WB6's adaptation efforts with the EU Adaptation Strategy⁸, support the reduction of vulnerabilities across WB6, contribute to increasing their adaptive capacities and residual risks management, and support development of domestic-level adaptation processes and reporting systems and roadmaps for managing both increasing extremes and slow onset changes in the climate system.

The need for structured adaptation reporting is further reinforced by **Article 19 of the EU Governance Regulation**⁹ which mandates integrated reporting on climate adaptation actions, financial and technology support to developing economies, and the use of auctioning revenues. Additionally, the Biennial Transparency Reports (BTRs) required under the Paris Agreement demand a more coordinated approach to implementation, monitoring and reporting on adaptation, which can be a challenge for WB6.

To build resilience across the region, **further efforts should focus on:**

- Climate-proofing infrastructure and integrating adaptation into strategic planning;
- Promoting the **use of Nature-based Solutions (NbS)**;
- Enhancing public awareness and preparedness for climate-related hazards;
- Mobilising and directing **finance and funding** towards resilient development at both central and local levels.

5 <https://unfccc.int/news/cop29-un-climate-conference-agrees-to-triple-finance-to-developing-countries-protecting-lives-and>

6 https://neighbourhood-enlargement.ec.europa.eu/system/files/2020-10/green_agenda_for_the_western_balkans_en.pdf

7 <https://www.rcc.int/docs/596/action-plan-for-the-implementation-of-the-sofia-declaration-on-the-green-agenda-for-the-western-balkans-2021-2030>

8 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:82:FIN>

9 [https://www.energy-community.org/dam/jcr:e24c911e-f0f6-4f26-a152-ec79d85ee1a4/EnC%20REGULATION%20\(EU\)%2020181999.pdf](https://www.energy-community.org/dam/jcr:e24c911e-f0f6-4f26-a152-ec79d85ee1a4/EnC%20REGULATION%20(EU)%2020181999.pdf)



2. FRAMEWORK FOR DEVELOPMENT OF WB6 ADAPTATION STRATEGY

2.1 GAWB Action Plan (2021-2030)

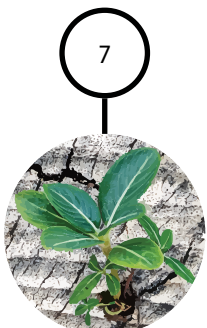
The existing GAWB Action Plan outlines measures across seven Roadmaps of the Sofia Declaration: (1) Climate Action, (2) Energy, (3) Transport, (4) Circular Economy, (5) Pollution, (6) Sustainable Agriculture, and (7) Nature and Biodiversity Protection. **The Climate Action Roadmap** sets out actions to align with the European Climate Law supporting the work towards achieving climate-neutrality and resilience by 2050. It also addresses enabling the energy transition and fostering sustainable transport development. Climate Adaptation Roadmap envisions **alignment with the EU Adaptation Strategy**, aiming to build **resilience to climate change across all sectors** (as stated in the European Climate Law). Additionally, the key element of this Roadmap is the development of WB6 Adaptation Strategy, which will guide and support long-term adaptation planning and regional cooperation on climate resilience.

The WB6 Adaptation Strategy should integrate climate resilience across GAWB actions, as the EU Adaptation Strategy does within the European Green Deal, while addressing shared regional needs and implementation gaps. Although GAWB roadmaps support EU alignment and climate neutrality, resilience efforts remain limited—for example, climate-proofing should be embedded in the Energy and Transport roadmaps, and climate risk reduction in Depollution and Sustainable Agriculture. These aspects are being taken into consideration in the ongoing revision of the GAWB Action Plan.

2.2 European Climate Law

The European Climate Law¹⁰ is a key regulation implementing the European Green Deal and the targets to achieve **climate-neutrality and climate resilience** across all sectors. The Law sets a binding target for the climate-neutrality of the region by 2050 (under Article 2), and the adoption of **EU Adaptation Strategy** (under Article 5), in accordance with Paris Agreement (Article 2 and Article 7). To enhance scientific advice on climate change, the established **European Scientific Advisory Body on Climate Change** will ensure introduction of the latest knowledge into mitigation and adaptation action planning (Article 3). Each EU Member State is invited **to establish a scientific**

10 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021R1119>



advisory body, which will provide advice to relevant authorities on issues relating to climate change. The European Environmental Agency (EEA) should be informed of the establishment of such bodies.

2.3 EU Adaptation Strategy

The EU Adaptation Strategy represents a key document for mainstreaming the adaptation across all sectors, with the goal of making the EU resilient to climate change by 2050.

The EU Adaptation Strategy sets out four principal objectives: to make adaptation **smarter, swifter and more systemic**, and to contribute to **stepping up international actions** on climate change adaptation. Adopted in line with the European Climate Law, the Strategy outlines a set of actions that the **European Commission is committed to implementing**. These actions aim to enhance policy coherence in adaptation, improve the financing of adaptation measures, etc. The EU Adaptation Strategy aims to ensure the climate resilience across all components of the European Green Deal including infrastructure building and renovation, energy transition, circular economy, sustainable agriculture, biodiversity preservation and environmental protection. It highlights the complexity of adaptation process and underscores the need for an integrated approach linking scientific knowledge (smart adaptation), policy and decision-making (systemic implementation) and financing mechanisms, both public and private sector (to accelerate adaptation).

Achieving sustainable climate resilience also requires addressing intraregional climate risks. Therefore, international cooperation in adaptation planning is essential to ensure coordinated and effective intraregional responses to climate change.

The political guidelines for the EU for 2024-2029 period include development of a European Climate Adaptation Plan¹¹, aimed at supporting EU Member States in enhancing their preparedness and resilience to the impacts of climate change. In parallel, the EU Preparedness Union Strategy¹² aims to improve civilian and military preparedness to respond timely in case of emergency. It also aims to improve coordination among Member States within the framework of existing strategies, and foster a culture of resilience and a whole of society engagement. One of the key priorities identified in the EU Adaptation Strategy - strengthening Europe's water security - will be addressed through the forthcoming European Water Resilience Strategy.

2.4 European Climate Risk Assessment and WB6 risks

The European Climate Risk Assessment (CRA)¹³ report (EEA, 2024) provides the information on major climate risks facing Europe and underscores the urgency of implementing risk reduction

11 https://commission.europa.eu/document/download/e6cd4328-673c-4e7a-8683-f63ffb2cf648_en?filename=Political%20Guidelines%202024-2029_EN.pdf

12 https://commission.europa.eu/topics/preparedness_en#:~:text=EU%20preparedness%20union%20strategy&text=The%20strategy%20aims%20to%20enhance,quickly%20and%20effectively%20if%20needed.

13 <https://www.eea.europa.eu/en/analysis/publications/european-climate-risk-assessment>



measures. Climate risks are grouped in **five main risk clusters: Ecosystems, Food, Health, Infrastructure, and Economy and finance**. Southern Europe (SE), which includes the entire WB6 region, is considered to be a hot spot for several of these risks. The information on WB6 climate change and related risks is derived from reports submitted to relevant UN conventions (UNFCCC, UNCCD, CBD) and other available documents (see Appendix).

Within the Ecosystems cluster for WB6 (Table 1) major risks are related to the biodiversity/carbon sinks due to increased droughts, rising temperatures and wildfires, and pests. The Fire Weather Index¹⁴ (FWI) for the WB6 region is expected to rise under future climate change scenarios, indicating longer periods of high fire risks. However, **systematic monitoring of invasive species, pests, diseases**, and other direct and indirect impacts of climate change on ecosystems remains largely absent. This gap is also reflected in CBD reports submitted by WB6 which are parties to the UN Conventions (Appendix). According to these reports, land degradation, including soil degradation, is impacted by increasing drought conditions and level of aridity, mainly due to the increasing temperatures. Intensified precipitation increases the risk of erosion and thus soil degradation. In flatlands, exposed soils are also impacted by wind erosion. To enable assessment of the spatial distribution of climate risks to ecosystems and properly plan adaptation measures, it is necessary to collect knowledge on vulnerabilities. *Integrated monitoring system for climate change, its impacts, land degradation and biodiversity in WB6 would enable development of multifunctional adaptation measures which are effective in the long-term.*

Table 1. ECOSYSTEMS CLUSTER from CRA

Risks	Urgency to act and risk level in Europe
Biodiversity/carbon sinks due to wildfires	Urgent action needed in SE Risk level critical to catastrophic
Costal and marine ecosystems	Urgent action needed Risk level critical to catastrophic
Biodiversity/carbon sinks due to droughts and pests	More action needed Risk level critical to catastrophic
Species distribution shifts	More action needed Risk level critical to catastrophic
Ecosystems/society due to invasive species	More action needed Risk level critical to catastrophic
Aquatic and wetland ecosystems	More action needed Risk level critical
Soil health	More action needed Risk level substantial to critical
Cascading impacts from forest disturbances	Further investigation needed Risk level critical

14 <https://climate.copernicus.eu/fire-weather-index>



Within the Food cluster for WB6 (Table 2) the primary adaptation challenges relate to crop (both perennial and annual) and livestock production. While fisheries and aquaculture are not currently considered priority areas, further assessment of climate change impacts on these sectors is recommended. Major risks to plant production and livestock breeding include heatwaves, droughts, and water scarcity. There is an increasing risk of soil degradation due to the direct impact of soil treatment (tillage, fertilisation, crop rotation, insufficient protection from soil erosion, etc.) and climate change impacts. Livestock is affected by increasing heat stress, water insecurity and access to quality nutrition (mainly due to degradation of meadows and pastures). [Adaptation planning in agriculture includes both measures for long-term production planning and short-term adjustments of production.](#)

1. Long-term adaptation planning in agriculture focuses on integration of climate change knowledge on production distribution and of climate risks for different plant and animal production in the strategic planning. This can be achieved through:
 - » zoning of agricultural production: spatial mapping of favourable regions for growing and breeding, including recommendations for risk mitigation, and
 - » directing subsidies towards the implementation of production according to adopted agricultural zoning and recommended risk mitigation actions. Zoning and recommendations must consider: optimisation of water use, prevention and mitigation of soil degradation, and protection of biodiversity.
2. Short-term adaptation (adjustments) of production aims to enhance preparedness for imminent weather extremes to reduce potential negative impacts on production. It requires timely access to information on weather conditions, and recommendations on interventions which could reduce negative impacts. Practical implementation of short-term adaptation consists of:
 - » (1) Early Warning System products tailored to agricultural producers, offering both seasonal and short-term forecasts; and
 - » (2) Mechanisms for fast dissemination of information and recommendations for interventions.

Food security due to higher food prices outside Europe is not assessed in terms of climate change impacts under the CRA or within the WB6. However, high vulnerability in the region can be assumed due to the relatively low-income levels across the WB6 and the current lack of mechanisms to stabilise food prices in the face of increasing climate risks.

Table 2. FOOD CLUSTER in CRA

Risks	Urgency to act and risk level
Crop production	<u>Urgent action needed in SE</u> Risk level critical to catastrophic
Food security due to climate impacts outside Europe	Further investigation needed Risk level critical to catastrophic
Food security due to higher food prices	Further investigation needed Risk level critical



Risks	Urgency to act and risk level
Fisheries and aquaculture	Further investigation needed Risk level critical
Livestock production	Watching brief Risk level substantial

Within the Health cluster for WB6 (Table 3) the major climate risk is heat stress. However, the region also faces increasing threats from wildfires, which endanger public safety—exacerbated by the absence of adequate policies, regulations, and investment aimed at strengthening fire resilience. In certain areas, practices such as crop burning and the presence of illegal or poorly managed landfills further contribute to uncontrolled fires, which worsen already deteriorating air quality. The combined impacts of heat stress and poor air quality make WB6 the most vulnerable region in Europe, underscoring the urgent need for intervention. Urban development lacks the policies and regulations for reducing heat stress (i.e. the urban heat island effect) and protections for outdoor workers exposed to rising climate risks remain insufficient. Additional health-related climate risks include limited access to safe drinking water and disturbances of water security caused by increasingly frequent local storms, including wind gusts, floods and hail. Although the spread of infectious diseases linked to climate change is recognised, systematic monitoring remains limited. In this regard, biodiversity monitoring, particularly for vector-carried diseases, can serve as a valuable tool for monitoring health-related indicators. With regard to health systems and infrastructure, there are no interventions planned to improve emergency teams' readiness in the face of escalating climate risks. Security of people's living conditions, in terms of tenants' exposure in non-adapted buildings, is not assessed. The first step towards improving public health and security is the enhancement of [early warning systems and alert mechanisms](#). [These services are essential for enabling individuals to take preventive action to safeguard their health, livelihoods, and property, and for supporting timely emergency response](#). The level of quality and efficiency of such services in the WB6 is still below the standards found in major parts of Europe, making this action the highest priority. Another area for intervention is the implementation of policies that would [strengthen the safety of outdoor workers under increasing climate risks](#). To ensure equitable adaptation, the needs of other [vulnerable groups should be considered](#) including the elderly, people living in poverty, individuals with chronic illness or disabilities. Particular attention should be given to children and youth whose development and health may be adversely affected by limited opportunities for outdoor activity due to the combined impacts of heat, air pollution, and environmental degradation.

Table 3. HEALTH CLUSTER from CRA

Risks	Urgency to act and risk level
Heat stress – general population	Urgent action needed Risk level catastrophic
Population/built environment due to wildfires	<u>Urgent action needed in SE</u> Risk level critical to catastrophic
Wellbeing due to non-adapted buildings	More action needed Risk level substantial to critical



Risks	Urgency to act and risk level
Heat stress – outdoor workers	<u>More action needed in SE</u> Risk level critical
Pathogens in coastal waters	Further investigation needed Risk level substantial to critical
Health systems and infrastructure	Further investigation needed Risk level substantial to critical
Infectious diseases	Sustain current action Risk level substantial to critical

Within the Infrastructure cluster in WB6 (Table 4) current disaster risk assessment methodologies do not include climate change data nor regulations and standards for building climate-resilient infrastructure. As a result, domestic-level spatial plans and local development plans do not include climate resilient planning. There is also a lack of regulations governing resilient infrastructure project planning across key sectors such as transport, communication networks, public services and utilities and industrial facilities, etc., as well as for non-critical infrastructure planning like residential construction. For this reason, **climate-proofing of infrastructure is one of the major actions required in the WB6**. In the energy sector, the impact of climate change on energy production and supply are being recognised in some WB6. However, comprehensive planning for resilient energy systems is still under development, and is expected to be integrated into the domestic-level Climate and Energy Plans (NCEPs). Climate change poses a range of challenges to energy systems, including:

- » Disruptions to energy production and maintenance due to rising temperatures and prolonged droughts;
- » Limited capacity to assess the impacts of climate change on **water availability for hydropower generation and water temperatures needed for cooling energy plants**;
- » Shifts in **energy demand patterns** driven by changes in the distribution of heating and cooling days;
- » Insufficient evaluation of how the energy sector itself contributes to environmental degradation under changing climate conditions.

To ensure the long-term sustainability of energy production, it is essential to integrate long-term climate projections into risk assessments and to implement climate-proofing measures across the energy sector. Seasonal early warning systems can support improved preparedness for energy consumption anomalies and more effective planning of maintenance activities.



Table 4. INFRASTRUCTURE CLUSTER from CRA

Risks	Urgency to act and risk level
Pluvial and fluvial flooding	Urgent action needed Risk level critical to catastrophic
Coastal flooding	More action needed Risk level critical to catastrophic
Damage to infrastructure and buildings	More action needed Risk level substantial to critical
Energy disruption due to heat and drought	<u>More action needed in SE</u> Risk level critical
Energy disruption due to flooding	Further investigation needed Risk level critical
Marine transport	Further investigation needed Risk level substantial to critical
Land-based transport	Further investigation needed Risk level substantial

Within the Economy and finance cluster in WB6 (Table 5) urgent and substantial actions are required to assess vulnerabilities and identify priority areas for intervention. In order to accelerate and support the WB6 involvement in risk mitigation it is recommended [to initiate joint and transparent work, coordinated between WB6 and EU](#).

Table 5. ECONOMY AND FINANCE CLUSTER from CRA

Risks	Urgency to act and risk level
European solidarity mechanisms	Urgent action needed Risk level critical to catastrophic
Public finance	More action needed Risk level critical to catastrophic
Property and insurance markets	More action needed Risk level critical to catastrophic
Population/economy due to water scarcity	More action needed in SE Risk level critical to catastrophic
Pharmaceutical supply chains	Further investigation needed Risk level critical to catastrophic
Supply chains for raw materials and components	Further investigation needed Risk level critical



Risks	Urgency to act and risk level
Financial markets	Further investigation needed Risk level critical
Winter tourism	Sustain current action Risk level substantial to critical

2.5 Challenges in climate change adaptation in WB6

Challenges related to climate change adaptation in the WB6 region can be categorised into four groups:

- (1) Climate Risks Assessment;
- (2) Monitoring of climate change impacts;
- (3) Adaptation Planning, and
- (4) Major cross-cutting implementation challenges.

These are presented in Figure 1 with the level of implementation challenge indicated as follows: yellow (low), orange (medium) and red (high). Actions classified as medium and high priorities should be supported through the WB6 Adaptation Roadmap by strengthening the capacities of the WB6.

Climate change risks in the WB6 are assessed primarily through regular reporting to the UNFCCC through domestic-level Communications and on-going preparation of Biannual Transparency Report, as well as in domestic-level Adaptation Plans (NAPs) or similar strategic documents. Priority sectors are also identified in these reports. (See Appendix). A major challenge remains in understanding the indirect impacts of climate change, particularly those affecting biodiversity and natural resources. The [nexus approach to risk assessment requires improved knowledge on climate change impacts, along with the integration of disaster risk and climate change risk assessments into a unified framework](#).

Monitoring systems for climate change impacts have not been systematically developed. Building an [integrated monitoring system to track climate impacts](#) on land (including soil and water) and biodiversity would enable informed nexus approach in the climate risk assessments. Systemic [monitoring of climate-related damages and losses](#) would contribute to better assessment of the costs of adaptation needs and would justify the investments. [Health impacts](#) are not quantified in the WB6 region due to the lack of data and studies on climate-related health impacts. For this reason, there is a lack of interventions in adaptation strategies and policies related to health risk reduction.

Adaptation actions in priority sectors, are determined through domestic-level strategic planning frameworks considering specific vulnerabilities of WB6, and are being implemented to varying degrees. However, the [adaptation of mitigation actions has not been well addressed](#), due to a lack of consideration of climate risk reduction in mitigation planning. Another gap is insufficient [implementation of climate-proofing in strategic and project planning \(most important in critical infrastructure planning\)](#). This



relates to the sustainability of carbon sinks, energy production, transport, building and renovation, etc. Additionally, ensuring climate change resilience requires an integrated approach in disaster risk and climate risk reduction and mechanisms for fast recovery, such as dedicated recovery funds and affordable insurance policies. These instruments are essential to reduce damages and losses, ensure faster recovery from disasters and are considered as good approaches for the residual risks management. To continue improving the adaptation, to enable its adjustment under future climate conditions and other potential climate-related challenges, it is necessary to establish a monitoring and evaluation (ME) system. Reporting to UN (BTRs, NCs and other conventions), to EU under the Governance Regulation, and reporting under GAWB all require the outputs of ME systems. However, development of such systems in WB6 is still in progress and hampered by limited monitoring data.

Cross-cutting challenges in adaptation implementation in WB6 are:

1. Underdeveloped early warning systems (EWS);
2. Low levels of public preparedness; and
3. Insufficient administrative capacities to manage the complexity of adaptation processes and related reporting obligations.

Improvements in WB6 can benefit all sectors and societies. Underdeveloped EWSs in WB6 are the consequence of a lack of investments in technical infrastructure and limited development of expertise. To support increasing of preparedness to climate change in WB6, further efforts should focus on improving:

1. Access to operational data,
2. Training for experts employed in government institutions responsible for EWS;
3. Access to international funds for upgrading EWS; and
4. Availability of technical support.

Closer alignment with platforms such as Copernicus, ECMWF and ESA activities and products would significantly enhance data quality and accessibility, thereby improving both public preparedness and emergency response capabilities. A major challenge in adaptation implementation in the WB6 is the capacity of policymakers, who need to implement adaptation process in systemic way, i.e. through the policies of different sectors, and to enable integration of adaptation into local level planning. This requires strengthening of the capacities of policymakers for adaptation implementation, including the availability of scientific support, efficient coordination between ministries and supporting local-level governance. Climate-proofing and reporting on climate change actions, as well as reporting on data collected from monitoring systems, requires additional human capacities, improved networking, and training. Scaling adaptation to the local level requires improved access to data, methodologies and guidelines, in order to be effective.



Climate change risks	Climate change and climate hazards regularly updated and improved	Climate risks in priority sectors regularly updated and improved	Indirect climate risks building nexus approaches in risk assessment required and understanding of socio-economic impacts	
	Monitoring of impacts on biodiversity and natural resources not sufficient, joint monitoring systems required	Monitoring of damages and losses not sufficient, derived usually from other reports	Monitoring of health impacts health impact monitoring required	
	Adaptation actions in priority sectors under implementation	Adaptation of mitigation actions and climate-proofing better coordination in mitigation planning with climate risk assessment and adaptation planning	Fast recovery domestic-level mechanisms and funds for fast recoveries from disasters; access to insurance policies	Monitoring and Evaluation in adaptation ME systems under development
	Early warnings forecasts quality, products quantity and dissemination need to be improved and access to trainings and technical supports	Peoples' preparedness improving access to data and information for better preparedness to avoid climate hazards impacts	Capacities for adaptation implementation and reporting Policymakers overburdened, challenges in understanding new initiatives, coordination between ministries and availability of scientific support	

Figure 1. Common challenges identified in implementation of adaptation process in WB6. Actions which progress well on domestic-level (low level challenge) are provided in yellow, actions that are partially implemented but would benefit from regional support (medium level challenge) are in orange, and actions that are identified as high level challenge, which would significantly benefit from regional support, are in red.



SUMMARY OF SUPPORT NEEDED FOR WB6 TO ADDRESS COMMON CHALLENGES IN IMPLEMENTING DOMESTIC-LEVEL ADAPTATION PROCESS

(The actions listed below are derived from shared challenges, and are expected to drive a broader and systematic upgrade in adaptation implementation across WB6)

Strengthening monitoring systems for climate change impacts WB6 need to develop and operationalise robust monitoring systems, including:

- » Development of domestic-level integrated monitoring systems to track climate change impacts on land and biodiversity;
- » Systematic monitoring of damages and losses caused by climate-related hazards;
- » Establishment of monitoring mechanisms for climate change impacts on health.

Improved adaptation planning and implementation through:

- » Integration of climate-proofing in infrastructure development and strategic planning, strengthening the adaptation of mitigation action;
- » Improving of preparedness and faster recovery mechanism through integrated climate and disaster risk management, including risk sharing instruments;
- » Establishment of monitoring and evaluation (M&E) systems for adaptation, incorporating also “learning” component.

Increasing public preparedness to climate hazards:

- » Improve opportunities for development of early warning systems and greater public access to information;
- » Mainstream adaptation into local-level planning.

Supporting policymakers in adaptation planning, implementation and reporting.





3. MAPPING OF CLIMATE CHANGE ADAPTATION MEASURES FOR WB6 ADAPTATION STRATEGY THROUGH ALIGNMENT WITH EU ADAPTATION STRATEGY

The European Council recognises the climate change as “an existential threat”. The Global Commission on Adaptation highlights that adaptation solutions are “no regret” actions, meaning they should be implemented regardless of future climate change scenarios, and they often have multiple co-benefits especially in implementation of Nature-based Solutions (NbS) and disaster risk reduction (DRR).

The long-term vision of the EU Adaptation Strategy is: *in 2050 the EU will be climate-resilient society, fully adapted to the unavoidable impacts of climate change.* Together with reaching climate-neutrality by 2050, adaptive capacity will meet the needs of the society in the mid-century climate changing conditions and will continue to adjust to further changing climate. With this, future vulnerabilities to climate change would be reduced to minimum. This is aligned with the Paris Agreement and the European Climate Law, meaning that **actions that contribute to achieving climate-neutrality by 2050 must be supplemented with actions that ensure resilience to climate change by 2050, across all sectors.** Therefore, adaptation actions will be implemented as an integrated part of other European Green Deal initiatives (Biodiversity Strategy, Farm to Fork Strategy, Circular Economy and Zero Pollution Action Plans, Forest Strategy, Soil Strategy, Smart and Sustainable Mobility Strategy, Renewed Sustainable Finance Strategy). EU proceeds with strengthening preparedness and resilience to climate change with upcoming European Climate Adaptation Plan, European Water Resilience Strategy and developed EU Preparedness Union Strategy¹⁵. Increasing **policy coherence on adaptation** is a key for successful and systemic adaptation. Ensuring policy coherence is essential both at the domestic (across departments and for effective mainstreaming of adaptation at the local level) and regional levels to enable coordinated responses to potential intraregional climate change impacts.

Policy coherence in adaptation implementation in WB6 should be supported through the WB Adaptation Strategy by aligning GAWB Action Plan measures with adaptation measures, where possible.

¹⁵ <https://webgate.ec.europa.eu/circabc-ewpp/d/d/workspace/SpacesStore/b81316ab-a513-49a1-b520-b6a6e0de6986/file.bin>



Adaptation efforts in the EU have been ongoing since the adoption of 2013 Adaptation Strategy. The **Climate-ADAPT platform**¹⁶ has become a key source of reference for adaptation knowledge across the EU. All EU Member States have developed their strategic adaptation documents (strategy or plan), which initiates adaptation implementation and builds mechanisms for policy coherence on adaptation. As a result, climate change considerations are increasingly integrated into decision-making. The European Commission works closely with EU Member States to advance the implementation of the EU Adaptation Strategy and ensure alignment of adaptation actions, across the EU and at the international level.

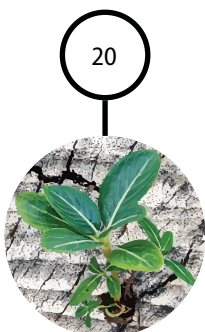
The **European Climate Pact** further supports these processes by empowering individuals to contribute to adaptation efforts. European Climate Pact includes **European Climate Pact Ambassadors**, such as leaders of organisations and movements, public office holders, representatives of educational and cultural institutions, influencers, etc., who raise awareness, inspire action and support climate policy implementation within their communities and networks. However, eligibility to participate as a Climate Pact Ambassador or Climate Pact Partner is currently limited to residents and organisations based in EU Member States.

OPENING CHANNELS FOR INFORMATION SHARING, COMMUNICATION AND EDUCATION ON ADAPTATION BETWEEN THE EU AND WB6

Climate-ADAPT Platform

The WB6 region would benefit from a structured platform to systematically share information on climate risks and adaptation. Participation in Climate-ADAPT platform would facilitate transparent and coherent information sharing, improve collaboration with international community and contribute to visibility of adaptation progress across the region. While reporting obligations to the EU provide relevant data, they limit easy and fast access for wider community. Inclusion of WB6 in Climate-ADAPT is on-going and in this context, the WB6, as Contracting Parties to the Energy Community, are already covered under Climate-ADAPT, where the EEA has begun publishing their profiles. For the WB6 to be fully featured, they must strengthen compliance with reporting obligations under the Governance Regulation (Regulation (EU) 2018/1999) by submitting data through Reportnet. Timely and consistent reporting to the EEA is essential to ensure the inclusion of WB6 Profiles in Climate-ADAPT. Creation of dedicated profiles** can be considered as an indicator of improved communication and knowledge exchange on adaptation.

16 <https://climate-adapt.eea.europa.eu/en>



European Climate Pact

Empowering individuals and organisations to actively engage in adaptation planning and implementation is essential for strengthening community-level resilience and opening opportunities for knowledge exchange between the WB6 and EU.

Adaptation portals of WB6

Developing dedicated domestic-level adaptation portals is essential for dissemination of knowledge, information and data, contributing to building capacities at the local level. Such portals are also shared under the Climate-ADAPT*** showcasing each of WB6` engagement in strengthening cross-sectoral and community communication. At present, such platforms for communication on climate risks and adaptation do not exist across the WB6. The development of these portals should be addressed through domestic-level planning and tailored to the specific needs and official language of each of WB6.

* Serbia has its own page as it is the only one that reported to the EEA on adaptation in 2025: <https://tinyurl.com/ye237c4s>

** <https://climate-adapt.eea.europa.eu/en/countries-regions/countries>

*** For example, <https://prilagodba-klimi.hr/>

Ensuring sustainable investments is essential for **financing adaptation** through closer collaboration of the public and private sectors. The private sector needs to be able to identify climate-related risks in order to avoid maladaptation, and to direct investments towards building resilience. This would help mobilise private investment in support of the transition to a climate-neutral, climate-resilient, environmentally sustainable, resource-efficient and fair economy-complementing public sector financing.

The Commission established the **Platform for Sustainable Finance**¹⁷ to enable cooperation between the public and private sectors, academia, industry, civil society, and the financial industry. The Platform supports the implementation of the **EU Taxonomy Regulation**¹⁸, thereby contributing to the European Green Deal objectives.

The EU Taxonomy Regulation provides a framework for assessing the environmental sustainability of economic activities, based on six environmental objectives:

- (1) climate change mitigation, (2) climate change adaptation, (3) sustainable use of water and marine resources, (4) transition to a circular economy, (5) pollution prevention and control, and (6) protection and restoration of biodiversity and ecosystems.

17 https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance/platform-sustainable-finance_en

18 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R0852>



For an economic activity to qualify as contributing to **climate change adaptation**, it must demonstrate resilience to future climate risks and actively contribute to reducing those risks. Additionally, it must not undermine the resilience of ecosystems or the environment as a whole.

Assessment of Sustainable Finance in Western Balkans Six: Prospects for Sustainable Finance Taxonomy¹⁹, published in 2024, examines the region's alignment with the EU Taxonomy, identifies common challenges and barriers, and presents a set of coordinated recommendations, developed in a close collaboration with the WB6.

Alignment with EU Taxonomy contributes to building climate resilience in the WB6, as it provides the basis for sustainable investment. Therefore, the implementation of the EU Taxonomy Regulation in the WB6 is a matter of urgency and should be recognised as a common strategic interest of the WB6.

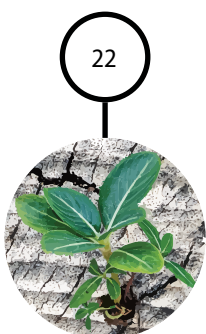
FINANCING ADAPTATION

Adaptation financing involves investments in projects and actions that strengthen resilience to climate change across sectors—through both public and private funding. Examples include climate-resilient infrastructure, drought-adapted irrigation systems, and nature-based solutions to address urban heat and flood risks. Investments in early warning systems, disaster prevention, and climate risk screening also contribute directly to adaptation. Other examples are investments into public and sectoral preparedness under integrated climate and disaster risk reduction, including better climate risk screening, early warning systems and improving interventions for prevention of disasters.

The EU Taxonomy ensures that investments contribute to at least one of six environmental objectives, including climate change adaptation. Applying the Taxonomy helps direct both public and private investments towards climate resilience, prevents greenwashing, and supports the goals of the European Green Deal and European Climate Law.

Aligning with the EU Taxonomy enables the WB6 to channel investments into adaptation-related priorities. While full implementation will follow through the EU accession process, applying the Taxonomy framework now can enhance project development, guide budget planning, and improve access to finance. Building the capacity of policymakers, investors, and stakeholders to use the Taxonomy for adaptation finance is therefore essential.

¹⁹ <https://www.rcc.int/pubs/197/assessment-of-sustainable-finance-in-western-balkans-prospects-for-sustainable-finance-taxonomy>



3.1 Make adaptation smarter

Adaptation planning and implementation should rely on scientific knowledge of climate change, associated risks and viable solutions. Engagement with the scientific community is necessary to ensure that adaptation interventions are evidence-based and effective.

At the same time, continuous efforts are needed to enhance scientific understanding, manage uncertainty, and strengthen the knowledge base on the interplay between climate hazards and socio-economic vulnerabilities in order to ensure effective and sustainable adaptation. Improved digital services, including access to data on climate hazards and risks, as well as methodologies and other services related to decision-making are critical to supporting informed adaptation planning.

EU capacities for **climate monitoring, weather forecasting, and climate services** are reflected in institutions such as: ECMWF (European Centre for Medium-range Weather Forecast²⁰), Copernicus (Copernicus Climate Change Service – C3S²¹) and ESA (European Space Agency²²). Among the WB6, only **Serbia** is a full member of ECMWF, while **Montenegro** and **North Macedonia** are cooperating. WB6, which are part of the UN, are members of WMO (World Meteorological Organization) and implement monitoring and data exchange protocols. WB6 have no status in Copernicus and ESA. Therefore, they have limited access to services, training and project funding, and hence underdeveloped early warning systems. Additionally, governments' investments in improvement of EWS are mainly insufficient to meet technical requirements. According to the World Bank WB6 CCDR²³, investment in EWS offers highest benefits to cost ratio in the WB6 region. To address identified gaps in forecasting products, WMO implemented a project for South-East European Multi-hazard Warning Advisory System²⁴ aimed at developing high-resolution short-term forecasts. However, this project was not continued.

Strengthening of WB6 capacities to improve early warning systems and other climate services is necessary and should be addressed through building of domestic-level capacities. While institutional organisations for the provision of such services are in place, insufficient investments in technical capacities have caused WB6 to fall behind the increasing needs for EWS products due to the climate change. Improved access to training, data, technical upgrades and access to projects and funding for the scientific community and responsible facilities, like hydro-meteorological services, can significantly improve public readiness and enable timely interventions to build climate resilience.

A Regional Working Group on EWS (RWG-EWS) should be established to:

- » **Assess current capacities and deficiencies in the EWSs across WB6;**
- » **Build strategic partnerships with ECWMF, ESA and Copernicus; and**
- » **Develop and implement joint project(s) for strengthening operational long-term (seasonal) forecast, short-term regional high-resolution forecasts and now-casting capacities.**

.....
20 <https://www.ecmwf.int/>

21 <https://www.copernicus.eu/en>

22 <https://www.esa.int/>

23 <https://www.worldbank.org/en/region/eca/publication/western-balkans-6-ccdr>

24 <https://www.see-mhews.org/>



The RWG-EWS should consist of experts in numerical weather and hydrological modelling, including both scientists and staff from hydro-meteorological services, and relevant stakeholders (for designing timely and necessary products). The RWG-EWS should be supported by representatives of relevant international institutions and, if necessary, coordinated by WMO.

NEW KNOWLEDGE FOR SMARTER ADAPTATION – BUILDING CAPACITIES FOR BETTER EARLY WARNING SYSTEMS (EWS)

EWS consist of six components: monitoring, forecasting, warnings, preparedness, feedback and risk knowledge. Implementation capacities across the WB6 for fully functional EWS that meet the growing challenges posed by climate change hazards differ significantly. However, upgrading monitoring and forecasting is a shared and urgent priority across all WB6. Other EWS components are a matter of domestic-level organisation and efforts and require much wider scope of engagement of relevant domestic institutions. New technologies and products for monitoring and forecasting are available, and implemented by hydro-meteorological centres. WB6 face limited access to ECMWF, ESA and Copernicus products, either because some are not full members of organisations or they do not systematically upgrade the capacities through training and funding. To address this gap, it is essential to build long-term capacities of WB6 for improving their EWS, and ensure continuous upgrading of systems in line with emerging solutions. For this reason, it is proposed to establish the RWG-EWS composed of WB6 representatives with specific operational expertise (numerical modelling, use of satellite data, etc.).

This group would identify priorities and engage with international institutions in building capacities and would serve as a platform for strengthening regional interconnectivity. Importantly, close cooperation with hydro-meteorological services, which hold legal responsibility for monitoring and forecasting, is crucial to ensure the development of fit-for-purpose solutions that improve short-term forecasting, now-casting and timely warnings. Establishment of such RWG would also contribute to opening the channel for structured communication and continuous improvement both between WB6 and with international organisations.

Improved understanding of climate change impacts on ecosystems and the services they provide, including impacts on natural resources, is important for high confidence risk assessment and adaptation sustainability. Climate change, besides causing changes in weather patterns, impacts soil, water and biodiversity. WB6 reporting under UN Rio Conventions (UNFCCC, UNCCD and CBD) provides information on climate change and its impacts on the economy sectors,



health, biodiversity and land. Levels of assessments differ among WB6, but the monitoring of climate change impacts on land degradation and biodiversity is a challenge for all of them.

Under the Protection of Nature and Biodiversity pillar, the GAWB Action Plan includes a measure to reinforce synergy between the Rio Conventions (measure 56) and a measure for biodiversity monitoring (57a). Under the Sustainable Agriculture pillar, it includes a measure to build Soil Partnership. However, further efforts are required to enable data collection on climate impacts. This can be achieved through development of an integrated monitoring system that tracks climate change and its impacts on land and biodiversity. This would enable better coordination in reporting to the Rio Conventions and building data repository for further nexus approach in climate risk assessments, sustainable adaptation planning, including sustainable land management and biodiversity protection under changing climate conditions.

Development of domestic-level integrated monitoring systems for climate change impacts in the WB6 should be implemented following the assessment of methodologies for integrated monitoring of climate change and its impacts, particularly on land and biodiversity. Recommendations for establishing such a system should also provide mechanisms for their effective use, criteria for the selection of indicators, and options for financial support for both implementation and functioning. This should be implemented through collaboration with the focal points of Rio Conventions or other relevant government representatives, and supported by relevant experts (scientists) from WB6.

Monitoring climate-related damages and losses is crucial for improving knowledge about the costs of climate change and economic benefits of adaptation measures. Data on damages and losses also contribute to improving climate risk assessments. However, monitoring is not well established, leading to significant underestimation of climate-related costs. To address this, the EU Adaptation Strategy states that the EC “will promote and support the use of a **Risk Data Hub**²⁵ for harmonising data on climate-related damages and losses and to promote partnerships at the EU level to share such data”. This includes common rules and specifications for the recording and collection of data on damages and losses related to climate change impacts. The **INSPIRE Directive**²⁶ enables public access to data related to climate risks, damages and losses.

The WB6 are not included in the EU’s Risk Data Hub, and lack an applicable tool for collecting and harmonising data on damages and losses caused by climate hazards. The information is usually collected from available domestic-level reports, such as compensation payments for damages related to floods, storms, and forest fires, and assessments provided by different sources for damages and losses in agriculture, many of which are not necessarily officially published. However, if the emergency is not declared, for example for drought or heat waves, those impacts are usually not considered which represents a major gap. **It is necessary to support the development of domestic-level monitoring systems for damages and losses caused by climate hazards in WB6 in accordance with EU methodologies and mechanisms, and to peruse the inclusion of WB6 in the Risk Data Hub.**

A platform providing easy access to knowledge and good practices is recognised as the most effective tool for making the adaptation smarter, due to the wide scope of climate risks and adaptation

25 <https://drmkc.jrc.ec.europa.eu/risk-data-hub/>

26 https://knowledge-base.inspire.ec.europa.eu/overview_en



options, which depend on the specifics of the region/location (terrain, infrastructure, socio-economic and climate change characteristics). The centralised platform for adaptation in Europe is **Climate-ADAPT**²⁷. The EU Adaptation Strategy highlights the importance of platform extension and a growing network of users. The platform also provides repositories of information and links to other available platforms (for example, platforms related to forestry, soil, biodiversity, etc.). **Including the WB6 in Climate-ADAPT, as envisaged under the Hamburg Declaration and through reporting obligations under the EU Governance Regulation, would enable them both to benefit from and to contribute to this key European knowledge-sharing platform. To be featured under CLIMATE ADAPT Profiles, the WB6 need to intensify their reporting via Reportnet and ensure regular information flow to the EEA on climate adaptation.**

The **European Climate and Health Observatory**²⁸ has been established under Climate-ADAPT, aiming to enhance understanding of the health impacts of climate change (climate risks) and strengthen the capacities for their mitigation. The EU Adaptation Strategy and the European Climate Risk Assessment highlight that health-related climate risks are increasing and must be addressed through intraregional cooperation. Climate change poses a growing threat to the capacities of health systems. This platform, among others, assessed the availability of monitoring systems for heat related health impacts, as the most abundant climate-related health risk²⁹. At present, the WB6 do not have surveillance systems for heat-related health problems nor heat-health action plans in place. The WB6 should make full use of the European Climate and Health Observatory to strengthen monitoring, risk assessment, and responses to climate-related health impacts, while addressing existing gaps through continued support, knowledge transfer, and capacity-building activities.

NEW KNOWLEDGE FOR SMARTER ADAPTATION – IMPROVING MONITORING SYSTEMS

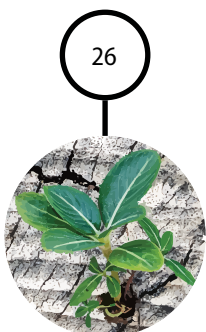
Monitoring land degradation and biodiversity under climate change impacts

is a missing link in understanding climate change impacts, particularly the cause of slow-onset events. While Rio Conventions are pursuing more coherent approach, the WB6 recognise the insufficient knowledge on this matter and a lack of financial and institutional capacities to carry out comprehensive monitoring. Under changing climate conditions, land degradation and changes in biodiversity are still at the level of theoretical knowledge with insufficient monitoring data. Building nexus in monitoring of climate change, land degradation and biodiversity is a starting point for upgrading knowledge on climate change impacts, risks and better adaptation planning. WB6 need the support to establish or improve their integrated monitoring systems on climate change impacts,

27 <https://climate-adapt.eea.europa.eu/en>

28 <https://climate-adapt.eea.europa.eu/en/observatory>

29 <https://www.eea.europa.eu/en/analysis/publications/the-impacts-of-heat-on-health>



land degradation and biodiversity by selecting indicators, organising field observations and building data repository.

Monitoring damages and losses caused by climate hazards requires systematic collection of information in accordance with EU efforts to produce better knowledge on damages and losses. It would enable improved understanding of climate related costs, support better planning of adaptation, highlight economic vulnerabilities to climate change and help in seeking funding opportunities. WB6 should aim to align their monitoring methodologies with EU standards, and share collected information through available platforms, such as Risk Data Hub.

Monitoring climate change impacts on health is not yet systematically implemented in WB6. The EU Adaptation Strategy and global climate-health frameworks recognise health as a priority area for adaptation. Therefore, establishment of such monitoring systems (or development as a plug-in to existing health monitoring systems) is necessary for WB6. Each WB6 requires support to select indicators and mechanisms for creating monitoring systems with transparent information sharing. This requires systemic interventions which will aim to establish institutional coordination between health, climate and environment authorities.

All of the listed updates of monitoring systems in WB6 are considered priorities in building knowledge and needs for better adaptation planning. They all contribute to enabling integrated climate risk and disaster risk management by improving understanding of the growing impacts of climate hazards.

3.2 More systemic adaptation

The EU Adaptation Strategy aims to support the implementation of adaptation across sectors and at all levels of governance. It identifies three cross-cutting priorities: integration of adaptation into micro-fiscal policy, integration of Nature-based Solutions, and development of local adaptation actions.

One of the major issues in systemic adaptation implementation is limited administrative capacity, which the EC addresses through the **Technical Support Instrument (TSI)**³⁰. TSI is demand driven and provides tailored technical assistance upon request from EU Member States—drawing on the expertise of the EC, the EU MS administrations, international organisations, and the private sector—without requiring additional co-financing.

30 https://commission.europa.eu/funding-tenders/find-funding/eu-funding-programmes/technical-support-instrument/technical-support-instrument-tsi_en



Intraregional cooperation on adaptation can be implemented through the cooperation frameworks of **macro-regional strategies**³¹ as well as through **Interreg funding programmes**³² which form part of the EU Cohesion Policy. In the period 2021-2027, it focuses on climate change, digital transformation, and social inclusion. Interreg includes EU Programmes (EU Member States), the Interreg IPA (a financial instrument to support EU-aspirants in the third stage of preparation for the EU accession) and Interreg NEXT (programmes that encourage cooperation with Ukraine and Moldova). The **Common Agricultural Policy (CAP)**³³ supports climate adaptation in rural areas through sustainable management of natural resources, rural development and resilience building. It aims to protect rural economies, farmers and their jobs and, most importantly, to maintain rural areas and landscapes. The listed mechanisms are implementation through coordinated actions of EU Member States and non-EU regions.

Additional coordination should aim at aligning WB6 needs and EU support mechanisms, such as TSI and Technical Assistance and Information Exchange (TAIEX)³⁴. Under the Interreg IPA, the WB6 are eligible to use funds to increase their resilience to climate change. The extent to which IPA funds are engaged in building resilience are monitored under DAC (Development Assistance Committee) codes. Since the IPA is recognised as a financing opportunity for adaptation implementation and intraregional collaboration in building resilience, it is important to keep track of spending which contribute to climate change adaptation. **A technical support instrument from EU needs to be used more efficiently to support systemic adaptation implementation, aligned with EU efforts and according to vulnerabilities and risks in the WB6. Technical support would finally result in larger share of investments directed to resilient development in WB6. Share of investments from IPA with contribution to adaptation, as monitored using DAC codes, can be used as an indicator for tracking EU investments in resilient development in WB6, where applicable.**

GAWB Action Plan, Sustainable Agricultural Roadmap highlights that legal harmonisation in the areas of agriculture and rural development should follow the framework of the Common Agricultural Policy (CAP) 2023-2027 in line with the Green Agenda measures. The EU Adaptation Strategy assigns the CAP an important role in the successful adaptation implementation. This includes the protection of farmers and farmlands and creates opportunities for resilient production. Alignment with CAP is the bedrock for implementation of just adaptation and for achieving resilience to climate change in the WB6. **Along with alignment with CAP, WB6 need to prepare for implementation of adaptation into agricultural production by creating mechanisms for knowledge transfer from science to practice, platforms for efficient information sharing and improved education of land managers in agriculture.** The urgency of this matter arises from the increasing climate change impacts on agriculture in the WB6 region and the low adaptive capacity of farmers. Action in this region should be implemented with the participation of relevant authorities responsible for agriculture and systemic adaptation, and with the help of EU experts with experience in implementing CAP initiatives in EU Member States.

Monitoring, reporting and evaluation (MRE or ME) are essential components of the adaptation process as they enable the assessment of progress in building climate resilience

31 https://ec.europa.eu/regional_policy/policy/cooperation/macro-regional-strategies_en

32 <https://interreg.eu/>

33 https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview_en

34 https://enlargement.ec.europa.eu/funding-technical-assistance/taix_en



and inform the continuous improvement of adaptation measures. Effective adaptation must incorporate a “learning” dimension³⁵– ensuring that the actions are refined over time based on accumulated knowledge and evolving scientific understanding. The **Governance Regulation**³⁶ and **Implementing Regulation**³⁷ of the Energy Union and Climate Action govern the adaptation reporting of the EU Member States. The Energy Community’s Ministerial Council has adopted **Decision 2021/14/MC-EnC**³⁸, which extends the climate and energy reporting requirements to the Energy Community, including WB6. According to Article 19 of the Governance Regulation, WB6 are expected to report on adaptation actions. According to Article 17, WB6 also report on their Energy and Climate Plans. Reporting under Article 17 and Article 19 must be submitted through the Reportnet platform, the new e-Reporting platform for reporting to the European Environment Agency (EEA). While the EU provides a single Biannual Transparency Report to UNFCCC and EU Member States report according to the Governance Regulation, WB6 that are members of UNFCCC and the Energy Community must do both. This can pose administrative burdens. Therefore, coordination of these processes is essential to avoid duplication and to ensure consistency and efficiency in reporting.

Policy coherence must include adaptation to avoid potentially increasing climate risks such as unintentional increase of sensitivities or exposures of the systems/sectors to the impacts of climate change. This means that policymaking, in order to follow the climate resilience pathway, should: (1) ensure that regulations and measures (including funding) consider increasing climate risks, (2) design measures and regulations which result in reducing climate risks (building the resilience of economic sectors, natural environment and resources, increasing preparedness, planning preventive measures, etc.), (3) manage residual risks (for example, recovery measures, capacities for emergency actions to save lives, properties, infrastructure, etc.). These principles should be integrated into tenders, project selection criteria, and development of policies. **Better Regulation**³⁹ should contribute to building the resilience to climate change by conducting the evidence-based, transparent and inclusive decision-making.

The WB6 policies include a cycle of policymaking that generally aligns with principles of Better Regulation. However, the regulations of WB6 covering strategic planning and the design of laws should be further harmonised with the EU’s, including Better Regulation, in order to address climate resilience. Building climate resilience requires continuous policy updates informed by the latest scientific knowledge, and the WB6 region needs to strengthen the link between science and policymaking. Establishing scientific advisory bodies, working closely with policy- and decision-makers would ensure implementation of the latest knowledge and approaches in strategic planning, as was highlighted in the European Climate Law. **The WB6 should establish domestic-level scientific advisory bodies where not already in place to support the design and continuous adjusting of climate actions based on the latest scientific knowledge, including the work of the European Scientific Advisory Body on Climate Change and the EEA. These bodies would support strategic planning for building climate resilience and advancing progress towards**

35 <https://climate-adapt.eea.europa.eu/en/mission/knowledge-and-data/regional-adaptation-support-tool/step-6-monitoring-and-evaluating-adaptation>

36 https://eur-lex.europa.eu/legal-content/EN/TXT/?toc=OJ%3AL%3A2018%3A328%3ATOC&uri=uris-erv%3AOJL_2018.328.01.0001.01.ENG

37 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R1208>

38 https://www.energy-community.org/dam/jcr:c755f9db-f6e7-448c-9cf5-0a5f02113ae2/19thMCDDecision14_CEP11_30112021.pdf

39 https://commission.europa.eu/law/law-making-process/planning-and-proposing-law/better-regulation_en



climate-neutrality. Additionally, the Regional Working Group on the Green Agenda for the Western Balkans provides the most suitable framework for fostering coordination, exchange of information, and collaboration among scientific advisory bodies across the WB6 region.

SUPPORT SYSTEMIC ADAPTATION IMPLEMENTATION IN WB6 – MECHANISMS FOR BUILDING SUPPORT FOR ADMINISTRATIVE WORKERS AND PROJECT DEVELOPMENT

Scientific advisory body on climate change should be established in each WB6, in line with the European Climate Law. Necessity for establishing such bodies comes from the rapid evolution of scientific knowledge and solution-oriented approaches for increasing climate resilience and increasing complexity of the interventions required in strategic planning, legislation and governance. These challenges require intensive cross-sectoral collaboration and a continuous flow of insights from scientific community. The advisory body should be composed of high-level scientists (engaged in scientific institutions) with expertise in climate change adaptation and mitigation, vulnerable sectors, and legislative and policy developments. Its role is to support administration in incorporating climate resilience into sectoral strategies and legislation, informing reporting processes, guide preparation of projects in priority areas and provide advice on actions at both central and local-levels.

Fostering regional cooperation among WB6 scientific advisory bodies would enhance coordination on matters of common interest such as joint project development, mobilising technical support, exchanging knowledge and discussing about potential solutions among WB6's regarding climate challenges. It could consist of representatives of each WB6 scientific advisory bodies and, if needed, independent researchers with specific expertise relevant to the WB6 region. It would also serve as a platform for designing and implementing joint projects of regional importance and applying for international funding.

The EU provides technical support through TAIEX mechanism, which should also be leveraged to support systemic adaptation efforts. These efforts should be designed to the needs of public administration and advised by scientific advisory board to achieve needed outcomes. TAIEX is fully funded by the EU and available to WB6. It includes short-term expert missions, study visits, and workshops. To ensure desired impact, it must be focused on specific topics with well-chosen participants. The Technical Support Instrument (TSI) is an instrument with provides long-term support to EU Member States and is currently not accessible to WB6.



Local level adaptation planning and implementation is key for effective climate change adaptation. Local level authorities must be assisted in adaptation planning under their local adaptation plans or in direct implementation of adaptation through local development plans. To enable local level adaptation, it is necessary to have: (1) **methodology and data** for vulnerability and risk (V&R) assessment, (2) **tools, training** and other forms of support including access to experts to facilitate the implementation of V&R assessment and adaptation planning, and (3) **additional funding** for both adaptation planning and implementation. While domestic-level methodologies for disaster risk assessment, which include climate change data, can be adapted for local use, this requires an easy access to data and tools for the V&R assessments supported by training programmes. Local level adaptation processes must be designed to withstand institutional changes such as staff turnover by ensuring continuity and institutional memory. Centralised domestic-level adaptation portals can play an important role and serve as a platform for local level adaptation tools. Easy access to climate data is usually the greatest challenge. One positive example is the Digital Climate Atlas of Serbia⁴⁰, which provides an easy access to values of relevant climate indices under different scenarios, down to the local level. In addition to data platforms, guidelines on using the climate data for vulnerability and risk assessment and designing adaptation options including on-line tutorial materials are essential and necessary. Similarly, platforms such as **UNEP's STRATA and ClimaProof** offer access to local data that can be leveraged for adaptation planning⁴¹. The relevance and usability of available climate data platforms for the WB6 region, especially local level V&R assessment, should be assessed. If needed, additional efforts should be made to improve access to climate data for WB6 and their local self-governments. Local level adaptation actions should be monitored at the domestic-level through the ME systems.

Capacities for implementing climate adaptation at the local level in WB6 require further assessment and targeted strengthening, with a focus on identifying key challenges faced by local authorities. Building both domestic- and local-level expertise is essential to enable sustainability of the adaptation process.

Priority should be given to the immediate assessment of methodologies for local climate risk assessment and adaptation planning and implementation, including ensuring easy data access. Practical solutions should be provided rapidly, in accordance with EU best practices for local level adaptation. Additionally, it is necessary to explore the financing opportunities for local adaptation implementation from both public and international funds for which local self-governments are eligible to apply.

In the EU, the **financial support for local level adaptation** is available through the European Structural and Investment Funds, the Common Agricultural Policy, the LIFE Programme and the Recovery and Resilience Facility. For example, the LIFE sub-programme for climate change mitigation and adaptation⁴² provides action grants to support practical, pilot and demonstration projects aimed at enhancing climate resilience. There are several EU instruments in place that support local level adaptation efforts:

40 <https://atlas-klime.eko.gov.rs/>

41 <https://unepstrata.org/project/>

42 https://cinea.ec.europa.eu/programmes/life/climate-change-mitigation-and-adaptation_en



- » European Innovation Partnership on Smart Cities and Communities (EIP-SCC) Marketplace⁴³ that focuses on urban development and climate adaptation;
- » Digital Europe Programme⁴⁴ that provides support for key capacities such as supercomputing, advancing digital skills and wider use of digital technologies;
- » Horizon Europe⁴⁵ for research and innovation, etc.

International funding schemes relevant to local adaptation for WB6 must be well mapped. This includes assessing the extent to which these funds have already been used, identifying remaining opportunities and ensuring those opportunities are further promoted across both domestic and local levels.

In addition, the EU promotes instruments for empowering individuals to take adaptation actions through initiatives such as the European Climate Pact and the Education for Climate Coalition⁴⁶.

The WB6 should explore opportunities to engage in activities aimed at empowering individuals, including children and youth, on the topic of climate, environment and sustainable development. Participation in EU level actions and initiatives on this matter would help coordinated work on collective awareness raising in Europe, and help foster a climate-conscious next generation.

The Global Covenant of Mayors has issued a Multilevel Climate Action Guide for Decision Makers⁴⁷ including key recommendations to advance multilevel actions and enablers for multi-level climate action. However, the Multi-Level Governance Atlas⁴⁸ currently does not include cities from the WB6 region.

The **Covenant of Mayors – Europe** for Climate and Energy⁴⁹ is open to all local authorities regardless of their size or the current stage of their energy and climate policies implementation. Smaller municipalities can also join under certain conditions. Covenant signatories commit to adopting an integrated approach to climate change mitigation and adaptation by developing a Sustainable Energy and Climate Action Plan within two years of adhesion. The plan aims to reduce CO₂ emissions by at least 40% by 2030 and increase resilience to climate change.

Current participation from the WB6 region includes:

Albania - 8 signatories - 7 committed to adaptation;

Bosnia and Herzegovina - 71 signatories - 62 committed to adaptation;

Kosovo^{*50} - 3 signatories - 1 committed to adaptation;

.....
43 <https://smart-cities-marketplace.ec.europa.eu/>

44 <https://digital-strategy.ec.europa.eu/en/activities/digital-programme>

45 https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en

46 <https://education-for-climate.ec.europa.eu/community/>

47 <https://www.globalcovenantofmayors.org/wp-content/uploads/2023/12/MCA-Guidebook-Final.pdf>

48 <https://www.wri.org/initiatives/multi-level-governance-atlas>

49 <https://eu-mayors.ec.europa.eu/en/signatories>

50 * This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.



Montenegro - 12 signatories - 8 committed to adaptation;

North Macedonia - 7 signatories, 3 committed to adaptation;

Serbia - 24 signatories - 13 committed to adaptation.

The Covenant of Mayors also provides technical assistance to support the development and implementation of local adaptation actions.

In parallel, the **Urban Agenda for the EU**⁵¹ supports the transition of urban areas towards climate neutrality and resilience. The **Ljubljana Agreement**⁵², adopted at the Meeting of Ministers responsible for urban matters, highlight the importance of stronger multi-level and multi-stakeholder cooperation on urban issues to pursue climate neutrality and resilience in Europe by 2050. It also welcomes the Horizon Europe Mission to achieve 100 climate neutral cities by 2030⁵³.

Further efforts are needed to promote the participation of WB6 cities in the Covenant of Mayors and support their engagement in both mitigation and adaptation actions under this platform. The need of strengthening local level actions is recognised in the GAWB Action Plan. However, **building resilience at the local level should be treated as a top priority, and additional targeted actions focusing on this matter should be actively pursued**. Building closer links between local self-governments and domestic-level scientific advisory bodies on climate action can contribute to raising awareness and creating opportunities for sustainable development of municipalities across the region.

SUPPORT SYSTEMIC ADAPTATION IMPLEMENTATION IN WB6 – FROM DOMESTIC-LEVEL TO LOCAL-LEVEL ADAPTATION

Effective implementation of climate adaptation at the local-level requires access to up-to-date knowledge on climate change, methodologies for vulnerability and risk assessment, relevant climate data and practical guidance for designing and implementing adaptation measures in the most effective way. While capacity building through training can provide short-term assistance, establishment of a dedicated adaptation platform can serve as a long-term solution for information sharing and support. Currently, methodologies for integrated climate and disaster risk assessment are translated from higher, central level –, access to data differ among WB6 - while platforms for sharing information are not available. To support local-level adaptation, recognised as the backbone of effective adaptation implementation, the following key steps need to be addressed by each WB6:

- » Develop domestic-level **methodology for integrated disaster and climate risk assessment** with mechanism for translating it to the local-level;

51 <https://www.urbanagenda.urban-initiative.eu/urban-agenda-eu>

52 https://ec.europa.eu/regional_policy/sources/brochure/ljubljana_agreement_2021_en.pdf

53 https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/climate-neutral-and-smart-cities_en



- » Evaluate the opportunities for **easy data retrieval on vulnerability and risk assessment**, considering available platforms;
- » Design a **platform to support long-term sustainable mechanism for adaptation implementation** ensuring open communication and information sharing across different levels - from central to local level.

Building local-level capacities for adaptation can be supported by scientific advisory board, through TAIX and securing financing through international projects and funding.

Finally, local-level adaptation should be considered an integrated part of the domestic adaptation processes, and systematically integrated in ME systems.

The **equity dimension in climate adaptation planning and implementation** arises from vulnerability and risk assessments that include socio-economic factors. This approach ensures that pre-existing inequalities and vulnerabilities such as distribution of population across vulnerable groups and their capacities to avoid or recover from climate-related damages and losses are considered. The sustainability of resilience to climate change depends on just and fair implementation of adaptation measures that provides equal opportunities (equity). The compounded effects of extreme weather events, poor living conditions, inability to avoid injuries and losses, lack of capacity to recover from material damage, and high sensitivity due to chronic illness can push vulnerable individuals to the limits of survival. Just and fair adaptation must prioritise the safety and well-being of those most at risk, recognising that climate change is an amplifier of existing problems especially for persons and communities with pre-existing vulnerabilities.

Economic diversification is an important component of strategic climate adaptation. It supports the transition towards more resilient and low-emission economy through education, training and reskilling for green jobs. It is part of long-term strategic adaptation planning and also considers stepping away from vulnerable markets and products.

The equity dimension of adaptation is closely related to understanding the links between climate change impacts on health, education and overall social status. For this reason, authorities responsible for health, education, social status, employment, demography, etc. need to be included in the provision of data for climate vulnerability and risk assessment, particularly to enable inclusion of peoples' sensitivity to climate hazards. Design of adaptation measures that include such information is aligned with "leaving no one behind" approach and ensures just transition to a resilient society.

Improving knowledge on the **impacts of climate change on workers and working conditions** is required in order to ensure sufficient workforce, and health and safety of workers. In the EU Adaptation Strategy, the European Commission has committed to considering new initiatives **to increase worker protection from climate impacts**.

Strategic adaptation planning in WB6 would highly benefit from leveraging EU mechanisms that support just transition towards carbon-neutral and climate resilient future. In parallel, strengthening



economic diversification within adaptation strategies is essential to reduce systemic vulnerabilities and foster sustainable development.

The urgency for strengthening individual and systematic resilience in the WB6 arises from the high vulnerability to the compounded effects of air pollution and heat waves, relatively high unemployment rate, high share of individuals with chronic diseases, and the absence of effective legislation ensuring workers safety under increasingly extreme climate conditions. WB6 average lifespan is shorter compared to the EU average.

To effectively address these issues, it is necessary to assess the extent to which socio-economic dimension is introduced into strategic adaptation planning across WB6. Tailored recommendations for improvement should be developed and economic diversification should be promoted as a core pillar of just adaptation.

Regulations for the protection of workers in WB6 should aim to align with EU standards and with the increasing climate-related risks, in close collaboration with domestic-level scientific advisory bodies.

Strengthening climate resilience through integration into the fiscal frameworks for disaster risk management of WB6 would enable faster access to the funds for disaster recovery. Budgetary planning should consider increasing climate risks due to climate change. With this, disaster risk reduction and climate risk reduction are integrated through risk management and risk sharing instruments provided by the private sector. Another issue is the long-term effect of increasing risks on GDP and public debt.

The Regional Cooperation Council has established the SEE Regional Network on Disaster Risk Insurance and Risk Sharing. This Network will serve as a regional platform aimed at strengthening cooperation among insurance sector regulatory authorities and insurance and reinsurance sector associations of the South-East European Cooperation Process (SEEC) Participants. The Network will facilitate discussions on expanding regional cooperation, information sharing, and improving disaster risk insurance schemes and financial risk-sharing mechanisms. The establishment of this Regional Network is foreseen within the priority areas of intervention of South East Europe 2030 Strategy (SEE2030)^{54, 55}.

Revision of budgetary planning for integrated climate and disaster risk management (funds available for post disaster emergency and recovery) and risk sharing instruments is required in the WB6, with recommendations for their improvement in accordance with increasing climate risks. Equally important is to address the improvement of insurance policies for integrated risk management.

Building back better is key to increasing the resilience of disaster affected areas to avoid repetition of climate-related impacts and pouring too much money into rehabilitation to the point when these costs are unbearable for the budgets of the WB6. In this sense, building better means reducing sensitivity to climate disasters and, thereby, reducing vulnerability to climate change. NextGenerationEU⁵⁶ is a

54 <https://www.rcc.int/pages/148/south-east-europe-see2030-strategy#:~:text=The%20SEE%202030%20Strategy%20is,People>

55 <https://www.rcc.int/pubs/205/south-east-europe-2030-strategy-state-of-play-in-2024-third-annual-interim-implementation-report>

56 https://commission.europa.eu/strategy-and-policy/eu-budget/eu-borrower-investor-relations/nextgenerationeu_en



temporary instrument for the recovery of EU from coronavirus pandemic, but on a pathway which builds resilient, climate-neutral and greener future, including digitalisation. The EU expects to raise up to €712 billion by 2026. In the Recovery and Resilience Facility (RRF)⁵⁷ funds are allocated through grants and loans. Implementation of EU MS level **Recovery and Resilience Plans** (RRP)⁵⁸ is supported by the RRF. At least 37% of the allocation of the RRP should be directed to climate action (for mitigation and adaptation) according to the EU Adaptation Strategy. RRF will not support action which can harm the environment or undermine climate change adaptation. The EU Commission, through the Technical Support Mechanism, assists Member States with the design and implementation of RRP.

Report published in 2023 for REGILIENCE⁵⁹ assesses the **alignment of RRP with Adaptation Plans/Strategies (NAP/NAS)** among EU Member States in order to improve adaptation implementation into RRP and ensure policy coherence between EU MS documents and their alignments with regional targets. Regional targets also take into account the objectives set out in the EU Adaptation Strategy. The report evaluates the actions under RRP that contribute to their six pillars (green transition; digital transformation; smart sustainable and inclusive growth; social and territorial cohesion; health and economic, social and institutional resilience; policies for next generation). However, the findings show that measures and investments are directed far more towards mitigation than adaptation. Overall, only 6% of RRF funds are allocated to adaptation.

The European Union Solidarity Fund⁶⁰ supports EU Member States and EU-aspirants with financial support after severe natural disasters and major health emergencies. The EU Commission will promote better coordination between post-emergency and recovery operations and actions to ensure the “build back better” principle, as highlighted in the EU Adaptation Strategy.

WB6 should embrace the “build back better” principle, and explore the development of RRP to align with the EU actions, while ensuring policy coherence with plans and strategies. These efforts should focus on climate adaptation guided by the six pillars. Opportunities and capacities of WB6 to take such actions should be explored, including funding opportunities. RRP are important for further integration of the environmental protection and building resilience to climate change in the domestic-level policy frameworks. WB6 domestic-level plans, including methodologies for development of local-level plans, related to the recovery from disasters should be aligned with RRP, with integrated disaster risk reduction and climate risk reduction. Funding allocated to such plans should not support recovery investments that harm the environment or are not designed to be resilient to climate change.

Progress of integration of climate risks into disaster risk reduction actions in WB6 should be assessed and guidelines for integrated DRR and climate risk reduction should be developed and aligned with EU approaches.

Nature-based Solutions (NbS) are essential for building long-term resilience to climate change and enhancing carbon sinks. They provide many co-benefits, including water quality, soil productivity and improved biodiversity, and are cost-effective in the long-term. **According to their definition**

57 https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility_en

58 https://reform-support.ec.europa.eu/what-we-do/recovery-and-resilience-plans_en

59 https://regilience.eu/wp-content/uploads/2023/09/REGILIENCE_D2.4_v2.0_2023.pdf

60 https://ec.europa.eu/regional_policy/funding/solidarity-fund_en



(definitions by EC⁶¹ and IUCN⁶²) **NbS are adaptive (resilient) to climate change** and do not harm nature and humans, while ensuring sustainability of natural resources. The IUCN has also provided the Standard for designing and verification of NbS⁶³. The EEA further explained a broad umbrella concept of NbS⁶⁴, primarily in the service of climate change adaptation and disaster risk reduction. NbS comprehend large-scale solutions, like afforestation, restoration of forests, wetlands, peatlands, and coastal ecosystems. NbS also include smaller scale interventions like urban greening in terms of developing urban green spaces, green roofs, and solutions related to food production in terms of preservation and improvement of farmlands productivity by restoring natural processes.

Major co-benefit of NbS is their capacity to enhance carbon sequestration. Their implementation should be considered under carbon removals measures in the monitoring of net GHG emissions. To support this, the EU Commission develops a certification mechanism for carbon removals that enables monitoring and quantification of NbS contribution to EU's climate-neutrality goal.

IUCN has implemented the **ADAPT project**: Nature-based Solutions for resilient societies in the WB6⁶⁵. One of the outcomes of the project is the analysis of NbS integration into policies for climate change adaptation and disaster risk reduction⁶⁶. According to this assessment (published in 2022), the conclusion is that integration of NbS into policy and project design processes is at a relatively early stage in WB6 with some variations among WB6. This means that these solutions are not fully aligned with the IUCN Standard for NbS, and usually lack an assessment of the consequences of NbS, which can affect their sustainability and cost-effectiveness.

The goal of IUCN's on-going project **ADAPT2.0**: Nature-based Solutions for climate change mitigation and adaptation in the WB6⁶⁷ (implementation period 2024-2028), among others, is to establish a regional fund to mobilise resources for future NbS development and implementation.

Promotion of NbS implementation in the EU is achieved through the funding mechanism where NbS are prioritised as the most desirable solutions, in case they are applicable. Common Agricultural Policy, among others, plays a role in mainstreaming climate adaptation, including NbS. New business models provided to the farmers, which consider climate adaptation through NbS, would strengthen their role in carbon removals.

Promotion of NbS implementation in WB6 can be achieved through reform of the rules of financing mechanisms and adoption of regulations on NbS integration. This would lead to funds favouring NbS

61 Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions.

62 IUCN adopted the definition in 2016 according to resolution WCC-2016-Res-069-EN: Nature-based solutions are actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.

63 IUCN, 2020: Global Standard for Nature-based Solutions. A user-friendly framework for the verification, design and scaling up of NbS, <https://iucn.org/our-work/topic/iucn-global-standard-nature-based-solutions>

64 EEA, 2021: Nature-based solutions in Europe: Policy, knowledge and practice for climate change adaptation and disaster risk reduction

65 <https://iucn.org/our-work/region/eastern-europe-and-central-asia/our-work/adapt-nature-based-solutions-western>

66 <https://portals.iucn.org/library/sites/library/files/documents/2022-030-En.pdf>

67 <https://iucn.org/our-work/region/eastern-europe-and-central-asia/our-work/adapt-20-building-success-climate-and>



as the most desirable solutions. In order to avoid misuse of NbS, and thereby harm its sustainability and cost-effectiveness, WB6 would benefit from adopting a common definition and standard for verifying if policy measures and projects align with NbS concept; and from pushing NbS as far as possible as an alternative to “grey” solutions. In other words, NbS should be mandatory in cases wherever applicable and cost-effective in the long-term supported by regulatory frameworks that facilitate their implementation and the assessment of their contribution to carbon sequestration and broader climate goals. A practical example of merging the mandatory application of NbS concept with government financing is the allocation of agricultural subsidies to support regenerative agricultural practices which restore soil health and enhance carbon storage. **Regional recommendations for implementation of NbS in regulatory frameworks of WB6 should be provided, including opportunities for integrating NbS in strategic planning, and redirecting funding transfer towards NbS in public investments and donor programming, and encouraging private sector involvement in NbS projects.**

These efforts can further build on Action 6 of the Decarbonisation pillar of the GAWB Action Plan, (“Increase opportunities for the deployment of Nature-based Solutions to mitigate and adapt to climate change”) and complements Action 53 (“Develop and implement a Western Balkans Forest Landscape Restoration Plan”) by further expanding the application of NbS across the region.

SUPPORT SYSTEMIC ADAPTATION IMPLEMENTATION IN WB6– PRIORITY INTERVENTIONS THROUGH LEGISLATION

In aligning with European Climate Law and EU Adaptation Strategy, WB6 must prioritise specific legislative interventions aimed at the protection of people, nature and natural resources through legislation. They are identified as hot-spots for intervention requiring urgent and coordinated action:

Improve protection for outdoor workers through adjusted warning systems and improved legislation which would safeguard workers from their exposure to severe climate hazards. Legislative framework should build on existing labour laws, function as a modular “plug-in”, and be informed by risk indicators tailored to each of WB6` specific climate vulnerabilities.

Ensure just adaptation within systemic adaptation implementation - A just adaptation approach requires recognising addressing pre-existing vulnerabilities of citizens such as poverty, limited access to healthcare, and lack of education or technology. Systemic adaptation must be underpinned by principles of fairness and equity while considering socio-economic aspects of climate change impacts. While equal distribution of resources (finance, information, etc.) may appear sufficient, it often fails to address underlying socio-economic disparities. Structural reforms that reduce these vulnerabilities will ensure the long-term success and sustainability of adaptation measures.



Upscaling the implementation of Nature-based Solutions (NbS) requires intervention in regulatory frameworks that formally recognise NbS, adopting a standardised definition of NbS and standards for verification methodology to assess whether actions, measures and projects align with the NbS concept.

Preparing for inclusion in the EU's Common Agricultural Policy (CAP) under Chapter 11 of the acquis requires broad legislative reforms and capacity building in WB6, supported by IPARD (IPA Rural Development). In addition, the WB6 must mainstream adaptation knowledge to farmers and protection of farmlands taking into account characteristics of production and climate change impacts. This can be introduced through project design when applying for subsidies and the lease of public land. Conditions should incorporate integrated actions aligned with the objectives of the Rio Conventions: climate change adaptation and mitigation, sustainable land management and biodiversity protection. WB6 require support in developing effective approaches to inform farmers about climate risks and available adaptation options that also align with broader sustainability goals.

3.3 Faster adaptation

Financial losses and negative impacts on humans and environment are expected to increase as climate hazards intensify, many of which have already caused significant impacts and damages across the globe.

The most frequent and severe climate extremes in the WB6 region include heat waves, droughts, intensive precipitation and flooding. Slow on-set changes, like increasing of temperatures, shifts in precipitation annual patterns/distribution, land degradation, changes in surface and underground water availability, are likely to result in profound, long-term consequences in the future. Both climate extremes and slow on-set changes must be addressed through effective climate risk reduction to prevent or reduce potential damages and losses, and irreversible climate impacts. Urgent interventions are thus required, including **the immediate allocation of adequate investments in adaptation**.

The social dimension of adaptation is critical for rapidly **addressing the needs of those most vulnerable**, while the economic dimension is essential **to address the problems of sectors most affected by climate change**.

The EU has increased its funding for climate actions to 30% of their budget for the 2021-2027 period, with climate adaptation recognised as a key component. The European Investment Bank (EIB) has developed Climate Bank Roadmap for 2021-2025⁶⁸, which underscores the importance of climate adaptation, i.e. aligning with the resilient development through the implementation of European Green Deal. EIB Climate Risk Assessment (CRA) system serves to assess physical climate risks and managing

68 <https://www.eib.org/en/publications/the-eib-group-climate-bank-roadmap>



risks at the project level. The CRA system helps the EIB and its clients to understand how climate change may affect their projects and to identify appropriate adaptation measures. While many measures contributing to adaptation have been implemented and are underway, few of them involve physical solutions such as the introduction of green spaces to mitigate urban heat islands as highlighted in the EEA report on urban adaptation⁶⁹. In support of the EU Adaptation Strategy, the EIB has also developed Climate Adaptation Plan (2021)⁷⁰. The Bank's Climate Risk Screening Process for investments includes climate change vulnerability and risk assessment, and identifies project level solutions to minimise and manage climate risks, reducing residual climate risks wherever possible⁷¹.

Support is needed to advance the implementation of climate risk screening in the decision-making process of banks in the WB6 region, particularly for investment planning. This should be based on the assessment of current practices and accompanied by clear guidelines for improvement. To ensure a consistent and effective approach, the inclusion of climate risk screening in public banks' investment decision-making process should be agreed among WB6 and implemented in line with the developed guidelines.

Fast interventions in adaptation are essential to:

- (1) Accelerate designing of new solutions engaging science;
- (2) Reduce climate risks by integrating climate-proofing into strategic planning and projects;
- (3) Reduce health and safety risks; and
- (4) Ensure availability of freshwater.

Among economic sectors, agriculture and forestry face the highest climate risks. Therefore, urgent solutions are needed for farmers and other land managers. The European Commission, as outlined in the EU Adaptation Strategy, will promote the provision of sustainable high-quality reproductive material to support adaptation and enhance climate resilience in agriculture, forestry and land ecosystem management. Further support is established through technical advice to decision-makers and practitioners, as well as through the EU Taxonomy for Sustainable Actions, which includes adaptation and directs the support and financing towards climate resilient investments. Adaptation is also integrated into Natura 2000⁷² framework and Horizon Europe on Adaptation to Climate Change⁷³ supports innovation by engaging the scientific community.

The GAWB Action Plan (2021), under its Protection of Nature and Biodiversity pillar, includes development of the WB6 Biodiversity Strategic Plan (measure 51). This Plan will integrate the Kunming-Montreal Global Biodiversity Framework (GBF) targets, priorities of the EU Biodiversity Strategy for 2030, and key EU Nature Directives, ensuring a comprehensive and aligned approach to biodiversity conservation and ecosystem restoration. A key priority should be to foster synergy between climate change adaptation and biodiversity conservation, contributing to the Action 58 "Development of green infrastructure and ecosystem connectivity", while advancing the establishment of NATURA 2000

⁶⁹ <https://www.eea.europa.eu/en/analysis/publications/urban-adaptation-in-europe-what-works>

⁷⁰ https://www.eib.org/attachments/publications/the_eib_climate_adaptation_plan_en.pdf

⁷¹ Under the process of climate risk screening available tools can be used such as AWARE, <https://ndcpartnership.org/knowledge-portal/climate-toolbox/aware>

⁷² <https://natura2000.eea.europa.eu/>

⁷³ https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/adaptation-climate-change_en



in alignment with EU Habitats and Birds Directives. **Financing mechanisms should be designed to support projects that address both climate adaptation and biodiversity conservation, enabling mobilisation of diverse funding sources.**

Additionally, opportunities for WB6 participation in both the EU mission(s) and Horizon Europe projects on adaptation should be actively pursued and promoted.

FASTER ADAPTATION – INTEGRATED APPROACH TO CLIMATE CHANGE RISK AND DISASTER RISK MANAGEMENT

Integrated climate and disaster risk assessment involves adjusting the existing methodologies for disaster risk assessment to include information on trends of increasing frequency and intensity of climate hazards. WB6 need to upgrade their methodologies for disaster risk assessments to reflect these evolving trends, ensuring that methodologies are applicable at both central and local levels. Without such integrated risk assessment there is no sound basis for inclusion of climate change risks into risk screening, risk reduction planning and financial preparedness - elements that form the foundation of effective risk management.

Integrating climate change risks into project or policy level screening is essential for ensuring sustainable financing. This approach would lead to more accurate assessment of risks under changing climate conditions, helping reduce damages and losses, protect nature, natural resources and safeguard public health and safety. Its purpose is to identify potential risks early, support informed decision-making and help determine whether further exploration of adaptation options is necessary.

Risk sharing instruments such as insurance and social protection schemes can help distribute or transfer the financial burden of climate impacts. These instruments provide essential support for rapid recovery and reduce the risk of economic collapse when climate-related events occur. While adaptation efforts can mitigate many risks, residual risks will remain, highlighting the need for strong financial protection measures.

Closing the climate protection gap refers to addressing the difference between the economic losses caused by climate-related hazards and the portion of those losses that are insured or otherwise financially covered. This is particularly important for reducing uninsured losses in developing and vulnerable economies. Some of the solutions include improving access to insurance, enhancing public awareness of climate risks, and ensuring financial protection for most vulnerable groups.

Climate-proofing of infrastructure is essential for reducing climate-related risks, ensuring investments to be cost-effective over their lifetime, with relatively low upfront project costs. The EC has issued



Technical Guidance on Climate Proofing of Infrastructure for 2021-2027⁷⁴. According to this guidance, projects need to be assessed during the planning phase for their contributions to both climate change mitigation and adaptation. The costs of both contributions should be reflected in the final project cost assessment. Furthermore, climate impacts should be considered during the project impact assessment phase. Implementation of climate-proofing is supported through several EU funding mechanisms including InvestEU, Connecting Europe Facility - CEF, Regional Development Fund – ERDF, Cohesion Fund – CF, and Just Transition Fund – JTF. The EC is also working to upgrade infrastructure standards with the European Standardisation Organisation to promote climate-neutrality and increase resilience. **EU Member States are encouraged to include standardisation measures in their adaptation plans or strategies to ensure complementarity with the EU level standards.**

An illustrative example of climate-proofing is highlighted on the Climate-ADAPT platform: Climate proofed standards for road design, construction and maintenance⁷⁵. These standards can serve as a model for regional application in the WB6, helping to ensure reliable and climate-resilient road transport networks. Additional examples of climate-proofing measures can be explored under the Climate-ADAPT - adaptation options⁷⁶– such as climate-proofing of urban municipalities, FORESEE project, Regions4Climate (R4C) project, etc.

Implementation of climate-proofing in infrastructure regulations across the WB6 would significantly contribute to mainstreaming both climate change mitigation and adaptation across all economic sectors and projects. This is considered essential for achieving sustainable development. Climate-proofing in WB6 needs to be addressed through domestic-level standardisation in order to ensure strengthening of the resilience of infrastructure and alignment with the EU standards. Implementation of climate-proofing guidelines in the project planning and the impact assessment phase of projects needs to be addressed. More comprehensive implementation of climate-proofing in strategic planning is also required to contribute to more systemic implementation of adaptation.

The EC supports the integration of climate resilience into the criteria applicable to construction and renovation of buildings and critical infrastructure through the Green Public Procurement criteria for public buildings, the Digital Building Logbook, and revisions to the Energy Performance of Buildings and the Construction Products Regulation.

To address this at the regional level, climate-proofing should be mainstreamed in GAWB Action Plan under Decarbonisation pillar, which relates to building and renovation of infrastructure (roads, buildings) and energy transition. While contributions to climate-neutrality are included through this pillar, the component of resilience to climate change is relatively disregarded. For this reason, an integral approach to ensure contribution of measures to mitigation and adaptation is necessary, and can be achieved through the implementation of EU climate-proofing guidelines. **Guidelines for introduction of climate-proofing in regulations of the WB6, as an integral component of GAWB Action Plan, is needed. Implementation of climate-proofing of infrastructure in WB6, according to the guidelines, should be agreed to ensure consistent and coordinated implementation.**

74 <https://ec.europa.eu/newsroom/cipr/items/722278/en>

75 <https://climate-adapt.eea.europa.eu/en/metadata/adaptation-options/climate-proofed-standards-for-road-design-construction-and-maintenance>

76 https://climate-adapt.eea.europa.eu/en/data-and-downloads?size=n_10_n&filters%5B0%5D%5Bfield%5D=issued.date&filters%5B0%5D%5Btype%5D=any&filters%5B0%5D%5Bvalues%5D%5B0%5D=All%20time&filters%5B1%5D%5Bfield%5D=language&filters%5B1%5D%5Btype%5D=any&filters%5B1%5D%5Bvalues%5D%5B0%5D=en&sort-field=issued.date&sort-direction=desc



The revised **TEN-E** (Trans-European Networks for Energy)⁷⁷ Regulation (EU/2022/869)⁷⁸ states that energy infrastructure should be resilient to the unavoidable impacts that climate change is expected to have in Europe in spite of the mitigation efforts, and that projects need to consider adaptation measures in order to increase resilience to climate change. TEN-E Regulation integrates adaptation into Projects of Mutual Interest (energy infrastructure projects connecting EU member states with each other – PCIs and with partners outside the EU - PMIs). This considers intraregional collaboration on adaptation implementation.

TEN-T (Trans-European Transport Network)⁷⁹ Regulation (EU/ 2024/1679)⁸⁰ states that climate risk assessment and adaptation measures should be included in infrastructure planning in order to make infrastructure resilient to adverse impacts of climate change. According to the EU Adaptation Strategy, by 19 July 2026, the Commission shall carry out an assessment of the resilience and vulnerability of the core transport network to climate change impacts. Based on this assessment, the EC may develop and publish best practices on possible adaptation measures to ensure the network's resilience.

The GAWB Action Plan recognises TEN-T as part of the Road Action Plan, which implies that WB6 are expected to build climate resilient infrastructure. The Strategy for Sustainable and Smart Mobility in the Western Balkans Six⁸¹ (developed under the coordination of the Transport Community) considers climate-proofing in transport infrastructure development, highlighting the importance of applying TEN-T standards to ensure transport system resilience.

TEN-E is not currently part of the GAWB Action Plan, and it should be considered under the decarbonisation of the energy sector. The Energy Community coordinates implementation of the new TEN-E Regulation⁸².

Monitoring progress in the implementation of TEN-T and TEN-E regulations, particularly their climate-proofing components, should be introduced as an indicator for tracking adaptation implementation under the GAWB framework/GARI.

77 Trans-European Networks for Energy (TEN-E) policy is a long-standing EU instrument for connecting energy networks, strengthening cohesion and developing solidarity and cooperation across the EU.

78 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32022R0869>

79 EU's trans-European transport network policy, the TEN-T policy, is a key instrument for planning and developing a coherent, efficient, multimodal, and high-quality transport infrastructure across the EU. The network comprises railways, inland waterways, short sea shipping routes and roads linking urban nodes, maritime and inland ports, airports and terminals.

80 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1679>

81 <https://www.transport-community.org/wp-content/uploads/2021/06/Strategy-for-Sustainable-and-Smart-Mobility-in-the-Western-Balkans.pdf>

82 <https://www.energy-community.org/implementation/TEN-E.html>



FASTER ADAPTATION – CLIMATE-PROOFING

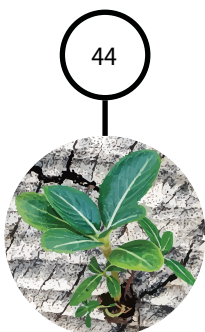
Implementation of climate-proofing in project design, strategic planning, and project environmental impact assessment ensures that all investments contribute to both climate change mitigation and adaptation, wherever feasible. Therefore, climate-proofing represents a **systematic process for ensuring that public or private investments are compatible with both decarbonisation and resilience pathway**. For example, integrating adaptation measures into the design and environmental assessment of critical infrastructure—particularly infrastructure exposed to increasing climate risks—is essential for minimising long-term damages and losses caused by climate-induced hazard. European Commission developed guidelines for climate-proofing of infrastructure, which is implemented in WB6 for the projects financed by EU or other funds that require such assessments. Implementation of climate-proofing would impact project risk screening and make them more eligible for funding. However, climate-proofing is not mandatory in WB6, and its implementation usually depends on investor's demands. To ensure alignment with the European Climate Law, the implementation of climate-proofing needs to be regulated through legislation in WB6. This would enable the design, construction, and renovation of infrastructure that is resilient to climate change, support climate-informed public and private finance, and accelerate cross-sectoral adaptation implementation.

Climate-proofing requires well developed and integrated climate and disaster risk assessment, which provides data on evolving hazards and vulnerabilities. While adaptation measures reduce climate risks, residual risks still remain. These must be managed through financial risk-sharing instruments (such as insurance and social protection schemes). By reducing potential losses through adaptation, climate-proofing helps close the climate protection gap—making it easier to fully manage remaining risks through financial mechanisms.

Both TEN-T and TEN-E regulations include climate-proofing as a key element for enhancing the resilience of critical infrastructure and ensuring network functionality under climate stress. In the WB6 region, Transport Community and Energy Community are coordinating implementation of these regulations and aligning regional transport and energy networks with the goals of the EU Energy Union and the Single European Transport Area. They implement actions related to resilience of assets and of network functionality.

Due the increasing precipitation intensity caused by climate change, risks of water overflows and runoff are increasing. The revised Urban Wastewater Treatment Directive (UWWT)⁸³ contributes to wastewater

83 <https://eur-lex.europa.eu/eli/dir/2024/3019/oj>



management. Sharing of best practices in preventing water pollution caused by flooding and droughts, especially as a result of industrial accidents, is expected from the EC.

The UWWT Directive, as one of the most investment-intensive directives within Chapter 27 of the EU negotiations, requires integration of climate change considerations in development of integrated waste management plans (Article 5). Such considerations will help minimise climate related risks to the new infrastructure that the WB6 region needs to construct in order to meet the Directive's requirements. The new infrastructure required for urban wastewater collection and treatment under the UWWT Directive is estimated to cost over 20 billion euros across the WB6 region. Integrating climate-proofing measures can significantly enhance the climate resilience of WB6.

Aligning with the revised Urban Wastewater Treatment Directive for the implementation of adaptation to climate change should be considered under the GAWB Depollution roadmap actions. Additional efforts to implement exiting and develop new practices for water management (under droughts and floods) in industry, energy, agriculture, and other relevant sectors could be of interest.

Slow progress in adaptation implementation coupled with the rising frequency and intensity of climate hazards is widening the **climate protection gap**, which represents a non-insured economic loss. In 2021-2023, economic losses in the EU were over EUR 162 billion, with an increasing trend⁸⁴. Less than 20% of total losses were insured in the EU: over one-third of the losses attributed to meteorological events were insured, while less than 15% of hydrological events and slightly over 10% of all climatological events, including heatwaves, droughts and forest fires, were insured. **Closing the climate protection gap using insurance as a risk-transfer mechanism** would reduce the financial burden of climate-related disasters to taxpayers and governments. In response, the European Insurance and Occupational Pensions Authority (EIOPA) and the European Central Bank (ECB) have released a proposal designed to reduce the economic impact of natural catastrophes in the EU⁸⁵. They are proposing a solution which builds on the existing structures, and consists of: (1) EU public-private reinsurance scheme, and (2) EU fund for public disaster financing.

Options for closing the climate protection gap using insurance as a climate risk-transfer mechanism, aligned with the EU level proposal and solutions and the actions outlined in the EU Adaptation Strategy, should be explored for introduction and application in the WB6.

Priority in climate-neutral and resilient development is to ensure that freshwater is available and managed in a sustainable way, since the access to drinking water is a basic human need. Climate change with changes in precipitation patterns and increasing temperatures causes an increase in frequency of floods and droughts. Water quality is also affected. Sustainable water management under changing climate conditions requires optimal use of water across all sectors, including the application of water-saving technologies, and enhancing soil capacity to retain water. To ensure future water security, it is important to monitor water quality and water levels, increase the scope of actions in drought management plans, include water use optimisation in Common Agricultural Policy Strategic Plans, etc.

84 <https://www.eea.europa.eu/en/analysis/indicators/economic-losses-from-climate-related>

85 https://www.eiopa.europa.eu/eiopa-and-ecb-propose-european-approach-reduce-economic-impact-natural-catastrophes-2024-12-18_en



The priority of water management under increasing climate risks, i.e. the climate resilience dimension, must be fully embedded in the Water Framework Directive⁸⁶ and the Flood Directive⁸⁷. In particular, River Management Plans should include climate adaptation actions due to the intraregional risk transfers. The EU Adaptation Strategy highlights that most of the losses are caused by drought in Europe, mainly in agriculture, energy sector and water supply. The EU responds to droughts and other climate hazards with the Union Civil Protection Mechanism and Early Warning Systems. Member States are implementing river basin management plans through the Water Framework Directive, and are also adopting Drought Management Plans.

The WB6 are in the process of adopting and implementing EU water-related legislation (Water Framework Directive, Urban Wastewater Treatment Directive, Drinking Water Directive, etc.) as stated in the GAWB Action Plan. With this, water management will be aligned with the EU, and will consider climate change adaptation. However, **water management measures in WB6 should be revised with targeted recommendations developed to align with the ongoing EU actions and interventions. This is essential to strengthen climate resilience across the WB6, particularly in terms of freshwater security under future climate conditions. Effective water management in a changing climate should consider the growing impacts of more intense precipitation events, more frequent and severe droughts and the increasing level of aridity in the region. Outcomes should directly inform and support strategic water management planning in the WB6.**

FASTER ADAPTATION – WATER SECURITY AND WATER RESILIENCE

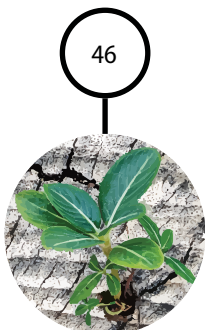
Water is an essential human need and is a top priority resource which requires urgent and strategic management to ensure its long-term availability. The EU recognises the high vulnerability of water resources to climate change, affected by compounded effect of overuse and intensifying climate impacts, and has announced development of Water Resilience Strategy as part of its 2024-2029 agenda.

The WB6 face increasing droughts and levels of aridity which shows the increasing risk of chronic water scarcity, especially in southern areas. At the same time, the region faces more frequent extreme precipitation events and shifting seasonal rainfall patterns. Compound effect of increasing climate hazards disturb the balance between water supply capacities and water demand. Restoring balance requires addressing impacts of both droughts and high precipitation events, along with introducing measures for more efficient and controlled use of water.

Given the urgency, water should be treated as a climate-vulnerable priority in the WB6 region. The WB6 should work closely with the EU to align with forthcoming EU Water Resilience Strategy and address region-specific climate risks. The complexity

86 https://environment.ec.europa.eu/topics/water/water-framework-directive_en

87 https://environment.ec.europa.eu/topics/water/floods_en



of sustainable water management requires support and expertise from the science community, which can be ensured through scientific advisory boards, and technical support from the EU. WB6 also committed to Water Framework Directive implementation through GAWB and under Chapter 27 of the EU accession process. An integrated water-drought management approach would help improving the balance between water availability and water demand under climate pressure. **Therefore, it is recommended that WB6 seek dedicated support to develop and implement integrated water-drought management approaches in line with the EU efforts.**



4. A WAY FORWARD

The WB6 Adaptation Strategy should fill the gaps between the EU Adaptation Strategy and domestic-level adaptation planning, and mainstream adaptation across the pillars of the GAWB Action Plan.

5. RECOMMENDATIONS FOR THE VISION, MAIN OBJECTIVE AND SPECIFIC OBJECTIVES OF THE WB6 ADAPTATION STRATEGY

The WB6 Adaptation Strategy aims to support achieving the resilience to climate change in the region by strengthening WB6 capacities to develop effective and sustainable adaptation processes, including the implementation of existing EU mechanisms, methodologies and solutions. Such approach contributes to relieving some of the burdens placed on institutions and to shaping the resilience roadmap in alignment with the EU's adaptation roadmap established under the EU Adaptation Strategy.

The long-term vision of the WB6 Adaptation Strategy is recommended to be:

WB6 is resilient to climate change by mid-century with implemented functional and robust adaptation mechanisms built on science, policy and adjusted financing.

The WB6 Adaptation Strategy should be adopted in 2026, with the period of implementation 2026-2030. Following this, revision of measures should be implemented. The Strategy should provide fast interventions for most emerging issues during its implementation period, thereby contributing effectively to adaptation implementation in the WB6. Time is of essence, since the identified challenges are derived from the current needs of the WB6.

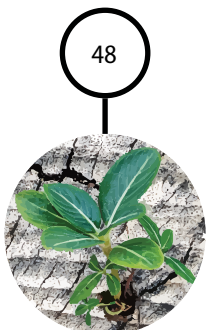
The main objective of the WB6 Adaptation Strategy is recommended to be:

Strengthen the capacities of WB6 to overcome their challenges in the adaptation planning and implementation by increasing preparedness of people and economic sectors, and by ensuring sustainability of adaptation measures, while reducing residual risks to a minimum.

Specific objectives are to be determined according to the type of contribution to the main objective.

The recommendation is to define four specific objectives of the WB6 Adaptation Strategy, as follows:

1. **Strengthening capacities for increasing preparedness to climate change through improving access to data, information and knowledge**
2. **Strengthening capacities for systemic adaptation and integrated disaster risk and climate risk reduction**
3. **Strengthening scientific and financial support for adaptation implementation**
4. **Strengthening regional coordination and governance for climate adaptation**



Specific objective 1: Strengthening capacities for increasing preparedness to climate change through improving access to data, information and knowledge

This specific objective will be achieved by measures which contribute to inclusion of WB6 in the European adaptation platform, support the improvement of monitoring systems (on health, integrated monitoring system for reporting to Rio Conventions, monitoring of damages and losses), and contribute to upgrading EWS. To improve access to knowledge and information, measures are to be designed to contribute to empowering individuals and monitoring the progress in awareness raising in relation to climate hazards and climate actions.

Specific objective 2: Strengthening capacities for systemic adaptation and integrated disaster risk and climate risk reduction

Implementation of integrated disaster risk and climate risk management is a challenge for the EU, as well as for WB6. However, it is necessary for DRR under climate changing conditions. It also considers local-level actions on DRR and sustainable development planning. To improve risk assessments and adaptation planning, socio-economic aspects should be better represented in adaptation planning. Aligning with EU instruments for adaptation implementation would contribute to EU accession and to building resilience through policy and regulations. In order to support one of the main goals of resilient development, ensuring freshwater access in the future, water and drought management actions must be improved and implemented as a highest priority. Because of the demanding reporting requirements related to climate actions, support for coherent reporting is recommended.

Specific objective 3: Strengthening scientific and financial support for adaptation implementation

Scientific support and accessible expertise are still insufficiently involved in policy- and decision-making with regard to adaptation implementation in the WB6 region (although this varies among the WB6). Measures for technical and scientific support improve access to different expertise. This roadmap strengthens regional scientific collaboration for building knowledge and makes adaptation smarter. To make adaptation faster, it is necessary to direct finance towards interventions for building resilience.

Specific objective 4. Strengthening regional coordination and governance for climate adaptation

Effective adaptation in the WB6 requires stronger regional coordination, peer learning, and joint action on shared climate risks. This objective will be achieved by:

- » Establishing climate-related technical group within the RWG GAWB framework that will serve as a regional coordination mechanism for adaptation, enabling alignment of domestic-level adaptation policies with regional goals; and serve as a mechanism to strengthen links with relevant EU initiatives and explore funding opportunities through joint participation in EU and other relevant international programmes;
- » Facilitating regular exchange of good practices, technical knowledge, and monitoring data among WB6;
- » Supporting regional standard-setting for adaptation planning and monitoring
- » Coordinating region-wide adaptation priorities.



APPENDIX

Climate policy in the WB6 is regulated by climate change laws, decarbonisation strategies, strategic adaptation documents, and integrated domestic-level Energy and Climate Plans (NECP). Decarbonisation strategies and NECPs are focused on reduction of net GHG emissions through reduction of emissions from different sectors and from Land Use, Land-Use Change and Forestry (LULUCF). Strategic adaptation documents consider implementation of measures which will strengthen the resilience to climate change of economy sectors, public health and biodiversity. Available documents from WB6 focused on climate actions in adaptation are listed in Table A1.

Table A1. Adaptation related documents
(YES if the document has been adopted, and is available in UNFCCC repository)

WB6	CC Law	Adaptation Strategic documents ⁸⁸	Comments
Albania	YES ⁸⁹	YES	New draft NAP available
Bosnia and Herzegovina	NO	YES	-
Kosovo*	YES ⁹⁰	NO	Climate Change Strategy for 2014-2024 ⁹¹ ; new Adaptation Strategy under development
Montenegro	YES ⁹²	YES ⁹³	New CC Law Draft available ⁹⁴
North Macedonia	NO	NO	Draft Climate Change Law available; development of NAP initiated
Serbia	YES ⁹⁵	YES	-

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- 88 All adaptation strategic document submitted to UNFCCC available here: <https://napcentral.org/submitted-naps>
- 89 https://climate-laws.org/document/law-no-155-2020-on-climate-change_1817?q=albania+climate+change&c=laws
- 90 https://climate-laws.org/document/law-on-climate-change_15c7?q=kosovo&c=laws
- 91 https://climate-laws.org/document/climate-change-strategy-2014-2024_1933?q=kosovo
- 92 https://climate-laws.org/document/law-on-protection-from-the-negative-impacts-of-climate-change_2c3c?l=montenegro
- 93 <https://www.gov.me/dokumenta/76a255fa-3afe-4018-9794-d04cfd12e2f1>
- 94 <https://www.portalanalitika.me/clanak/vlada-usvojila-predlog-zakona-o-klimatskim-promjenama-culafic-temelji-za-odrzivi-razvoj-i-klimatsku-otpornost-crne-gore>
- 95 https://climate-laws.org/document/serbian-law-on-climate-change_7d49



Most vulnerable (or affected) sectors in WB6 are: public health, including safety of citizens; agriculture (annual and perennial crop and livestock); forestry; infrastructure, including road transport; urban planning; energy; tourism.

WB6 (except Kosovo* which is not member of UN) reported on the climate change trends, impacts, vulnerabilities and risks, under the reporting commitments to UNFCCC, UNCCD and CBD. WB6 submit their reports on climate change, land degradation and biodiversity. Under the UNFCCC, they submit their domestic-level Adaptation Plans (NAPs), which are strategic documents that implement adaptation process in the WB6. The latest available documents are provided in Table A2.

Table A2. Documents submitted to UN conventions
(NAP or document with the same purpose; NC – domestic-level Communication - report for UNFCCC; NR – domestic-level Reports for other conventions, with indicated year of submission. Latest documents are listed.

WB6	UNFCCC ^{96,97}	UNCCD ⁹⁸	CBD ⁹⁹
Albania	NAP 2021 NC4 2022	NR 2018	NR 2019
Bosnia and Herzegovina	NAP 2021 NC4 2023	NR 2022	-
Kosovo*	-	-	-
Montenegro	NC4 2025	NR 2022	NR 2018
North Macedonia	NC4 2023	NR 2018	NR 2020
Serbia	NAP 2023 NC3 2023 BTR 2024 (adopted)	NR 2022	NR 2019

Climate change hazards and impacts in WB6 are:

- » Rapid increase of temperatures;
- » Increase in intensity and duration of heatwaves;
- » Change of distribution of precipitation by intensity towards more extreme precipitation events;
- » Increase in intensity and duration of droughts;
- » Increasing risks of floods, mainly flash floods and urban floods;
- » Increase in duration of weather conditions favourable for fires;
- » Increasing risk of land degradation, including soil erosion and landslides;

96 <https://unfccc.int/national-adaptation-plans>

97 <https://unfccc.int/non-annex-I-NCs>

98 All listed UNCCD reports of WB6 can be found here: <https://www.unccd.int/our-work/country-profiles>

99 All listed CBD reports of WB6 can be found here: <https://www.cbd.int/reports>



- » Increase of storm surges and erosion of coastal areas;
- » Impacts on biodiversity (defoliation of trees, change in species distribution, change in phenological development, etc.).

Comprehensive consideration of climate change and climate change impacts on land and biodiversity is essential for coherent approach to adaptation planning and for monitoring and evaluation of measures under adaptation process.







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