



BLACK SEA REGION CLIMATE ADAPTATION

Facing the Climate Challenge in the Black Sea Region

The Black Sea Region of Türkiye is one of the most ecologically diverse areas of the country. However, this richness is under growing threat from climate change. Rising temperatures, changing rainfall patterns, more frequent floods and landslides, and threats to marine and forest ecosystems are already being observed.

The region's hilly terrain, dense settlements along valleys and coasts, and reliance on agriculture and fisheries make it especially vulnerable. Local governments and public institutions must take proactive measures to build climate resilience.

Key Climate Risks in the
Black Sea Region

Adaptation Priorities &
Actions

Implementation
Approach

Key Sectors at Risk & Priority Actions

Floods and Landslides

Intense rainfall events cause flash floods and soil movement, damaging infrastructure and endangering lives.

Erosion and Coastal Risks

Rising sea levels and storm surges threaten coastal towns, agricultural lands, and ports.

Changing Rainfall

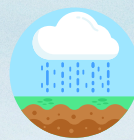
Irregular and concentrated precipitation challenges water resource planning and agricultural productivity.

Forestry and Biodiversity Loss

Shifting temperatures threaten native species and forest health.

Public Health Concerns

Vector-borne diseases, heat stress, and food safety risks are on the rise.





Adaptation Priorities & Actions



WATER MANAGEMENT & RESILIENCE

- Build flood retention basins and upgrade drainage in cities
- Restore wetlands and riverbanks to absorb rainfall
- Promote rainwater harvesting in homes and public buildings

AGRICULTURE & FOOD SYSTEMS



- Support crop diversification with drought-/flood-resistant species. ➤
- Strengthen early warning systems for weather events ➤
- Enhance irrigation efficiency through smart technologies ➤



Adaptation Priorities & Actions



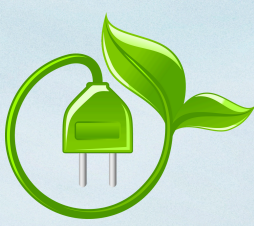
BIODIVERSITY & FORESTRY

- Develop ecological corridors for species migration
- Monitor and manage forest pests that increase with warming
- Rehabilitate degraded lands with native vegetation

ENERGY & INFRASTRUCTURE



- Improve the energy performance of public buildings
- Expand renewable energy use (solar, micro-hydro, wind)
- Climate-proof transport & electricity infrastructure



Adaptation Priorities & Actions



PUBLIC HEALTH PROTECTION

- Establish local heat-health warning systems
- Raise awareness of water and food hygiene during climate extremes
- Provide accessible cooling centers during heatwaves

URBAN & COASTAL ADAPTATION



- Update municipal zoning to reflect flood and erosion risks ➤
- Design green spaces to reduce heat and absorb runoff ➤
- Implement sustainable urban drainage systems (SUDS) ➤





Implementation Approach

Local Ownership

Municipalities will lead local adaptation planning.

Scientific Support

Collaboration with regional universities and research centers.

Integrated Planning

Climate adaptation mainstreamed into regional development strategies.

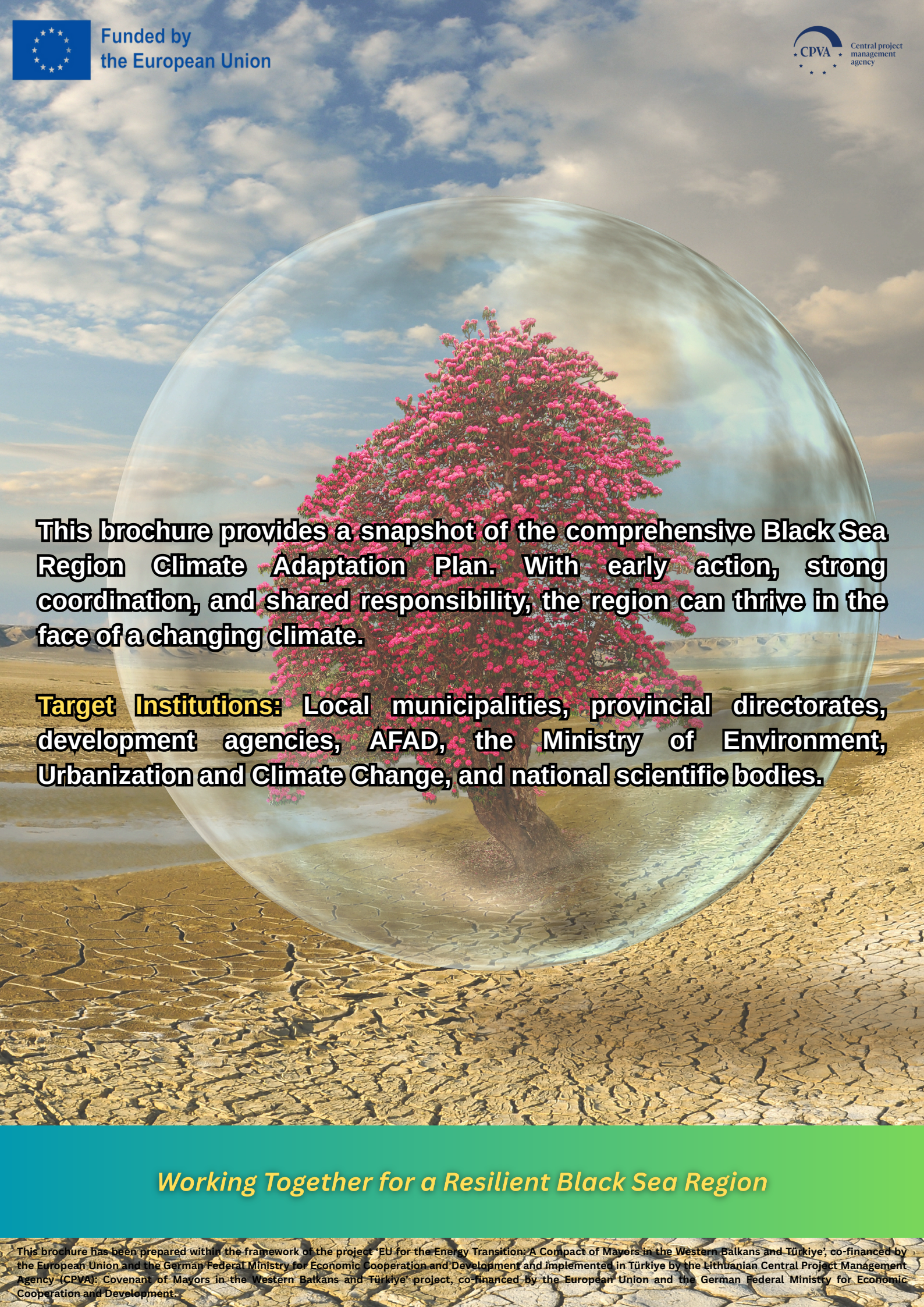
Monitoring & Evaluation

Regular progress reviews and public reporting.

Capacity Building

Trainings for local officials and public service teams.





This brochure provides a snapshot of the comprehensive Black Sea Region Climate Adaptation Plan. With early action, strong coordination, and shared responsibility, the region can thrive in the face of a changing climate.

Target Institutions: Local municipalities, provincial directorates, development agencies, AFAD, the Ministry of Environment, Urbanization and Climate Change, and national scientific bodies.

Working Together for a Resilient Black Sea Region