

## Albania's path to climate resilience

### The National Adaptation Plan

The NAP aims to reduce climate risks across Albania by strengthening infrastructure and institutional and technical capacities for the long-term integration of Climate Change Adaptation into national planning. Covering the period 2026–2036, it focuses on five priority sectors highly vulnerable to climate change — agriculture and forestry, tourism, energy, transport, and urban development.

#### PRIORITY SECTORS HIGHLY VULNERABLE TO CLIMATE CHANGE



Albania NAP prioritizes a total of 66 adaptation measures, with an estimated implementation cost of USD 9.8 billion for the whole period (≈ EUR 8.4 billion). The cost of inaction, however, would be far greater: without adaptation, Albania could face climate-related losses exceeding USD 17 billion.

These include:

<b>SOFT MEASURES</b>	Soft measures, such as capacity building, planning tools, and financial incentives, which strengthen governance and adaptive capacity
<b>GREEN MEASURES</b>	Green measures, which use ecosystem restoration and nature-based solutions to reduce risks
<b>GREY MEASURES</b>	Grey measures, referring to engineered or technological solutions that protect critical infrastructure.

These interventions will enhance resilience, support sustainable growth, and align national priorities with global adaptation goals.

## Agriculture and Forestry in Albania

### Opportunities and challenges

Agriculture, including livestock, remains one of Albania's most important economic sectors, employing around one-third of the workforce and contributing nearly 17% of GDP in 2022. The country has 696,000 hectares of agricultural land, distributed across four **Agro-Ecological Zones (AEZs): Lowland, Intermediate Hill, North & Central Mountains, and Southern Highlands**. Field crops dominate the lowlands, while livestock is present in all zones, with **pigs and poultry** concentrated in the lowlands and **bovines and horses** across the country.

The sector is mainly composed of small, **family-run farms (85%)** averaging **1.2 hectares**, which limits economies of scale and productivity.

Forests cover about **39% of Albania's land area** and play a crucial role in supporting rural livelihoods and regulating ecosystems. However, forest loss and degradation remain major concerns — forest area declined from **1.385 million hectares in 1938 to 1.051 million hectares in 2018, due to illegal logging, wildfires, and weak management**. Between 2007 and 2019, **over 330,000 hectares** of forest were affected by fires, representing a third of the national forest area.

Both agriculture and forestry face mounting **climate challenges, including droughts, floods, shifting species distributions, and pest outbreaks**. Addressing these risks requires **stronger governance, sustainable land use, and enhanced investment** in adaptation and forest restoration.

## How does climate change affect the Albanian Agriculture and Forestry sector?

### Risks and vulnerabilities

The risk assessment of the agriculture and forestry sector considers the **Agro-Ecological Zones, two sectors and five subsectors: the crop production sector**, including (i) **temporary/field crops** (cereals and vegetables), (ii) **permanent crops** (fruit trees, olive, citrus and grapes); and the **livestock sector**, including (iii) **bovine and horses**, (iv) **poultry and pigs**, and (v) **sheep and goats**.

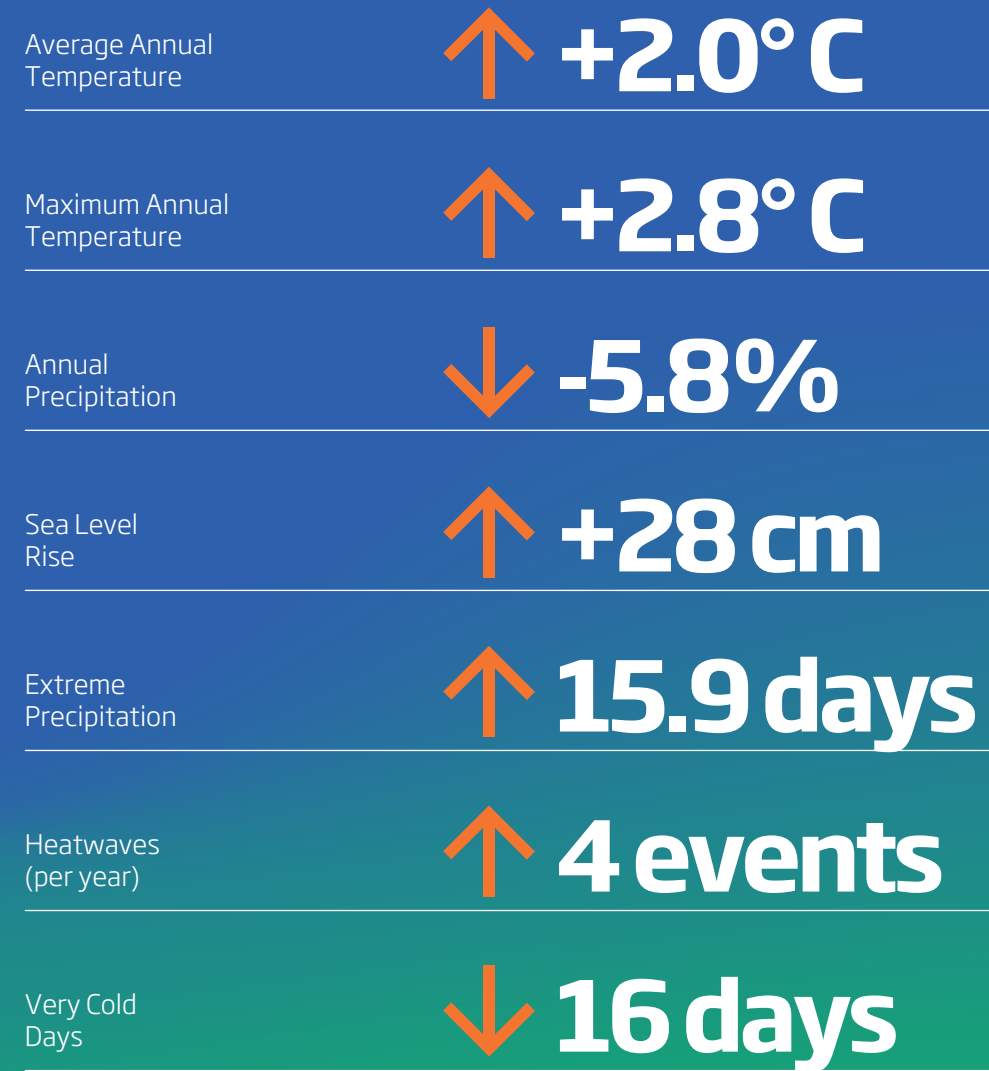
Across AEZs, the lowland zone shows very high risk under both current and future climate conditions.

By subsector, **crops are more vulnerable than livestock**, with risk levels ranging from moderate to very high. Among crops, temporary crops are at the **greatest risk**, while within livestock, bovine and horses show the **highest vulnerability**.

**Forestry systems** face growing threats from increased droughts, forest fires, pest outbreaks, and shifts in species distribution. These impacts further intensify the sector's exposure to climate risks, underscoring the need for integrated adaptation measures.

# National climate projections

Climate projections for Albania by 2050 reveal a clear pattern of rising temperatures, declining precipitation, and increasing frequency of extreme events across all emission scenarios.



Albania NAP prioritizes a total of 66 adaptation measures, with an estimated implementation cost of USD 9.8 billion for the whole period. The cost of inaction, however, would be far greater: without adaptation, Albania could face climate-related losses exceeding USD 17 billion.



Learn More

# Agriculture and Forestry in Albania's National Adaptation Plan

Building a sustainable and climate resilient sector in Albania



Agriculture and Forestry

## Agriculture and Forestry sector Adaptation Measures & budget overview

In the agriculture and forestry sectors, **21 priority adaptation measures** aim to enhance the resilience of ecosystems, rural livelihoods, and natural resources across Albania. Each measure under the NAP is supported by a comprehensive implementation framework that includes:

- A defined **budget and funding sources**
- **Institutional roles and responsibilities**
- **Detailed sub-activities** for implementation
- **Monitoring indicators** to track progress and impact

Within this framework, the agriculture and forestry sectors' priority actions include:

**Water management and infrastructure:** Rehabilitate irrigation and drainage systems, promote rainwater harvesting in drought-prone areas, and strengthen water security for agricultural production.

**Nature-based solutions for farmlands:** Restore floodplains, reinforce riverbanks, and implement ecosystem-based approaches to reduce flood and erosion risks on agricultural land.

**Farmer protection and risk management:** Develop crop insurance and disaster compensation funds to safeguard rural livelihoods against climate-induced losses.

**Agricultural services and monitoring:** Enhance climate and pest monitoring systems and implement an Action Plan to address invasive species in agricultural and coastal zones.

**Ecosystem restoration and reforestation:** Launch a nationwide afforestation and agroforestry program to restore degraded lands and strengthen watershed resilience.

**Species conservation and climate adaptation:** Establish regional nurseries for drought-resistant species and facilitate the migration of rare and endemic species to suitable habitats.

**Green belts and erosion control:** Protect coastal and riverine zones through the restoration of green belts and integrated erosion management measures.

**Forest fire prevention and sustainable financing:** Strengthen wildfire prevention and response systems and promote Payment for Ecosystem Services (PES) schemes to finance long-term forest conservation.

Together, these interventions represent a strategic effort to strengthen the resilience of Albania's agricultural and forest ecosystems, ensuring sustainable management of natural resources and the long-term viability of rural livelihoods in the face of growing climate challenges, with a total estimated cost of USD 678.1 million (≈ 7% of the NAP's total budget) for the agriculture sector and USD 2.81 billion for the forestry sector (≈ 28% of the total budget).



SOFT MEASURES	
1	Empowering farmers: financial support for climate-resilient infrastructure
2	Safeguarding farmers: Compensation and assistance programs for disaster recovery
3	Action Plan for Invasive Species Under Changing Climate Conditions
4	Enhancing IGEO's (Institute of Geosciences) Capacity for Coastal Monitoring and Data Provision on Environmental Changes and risks
5	Enhancing Forestry Efficiency through EU Regulatory Compliance
6	Advancing Sustainable Forestry: Afforestation Fund and Green Procurement Initiatives
7	Strengthening Forest and Pasture Protection: Investments in Human Capacity and Firefighting Resources
8	Sustainable Financing Through Payment for Ecosystem Services (PES)
GREEN MEASURES	
9	Implementing Habitat Creation and Nature-Based Solutions to Combat Soil Erosion
10	Revitalizing Damaged Lands: Integrating NbS and EBA with Agroforestry Practices
11	Advancing Afforestation: Establishing Regional Nurseries for Drought-Resistant Species
12	Supporting Migration of Rare and Endemic Forest Species to higher altitudes
13	Restoring Vital Ecosystems: Protecting and Regenerating Coastal and Riverine Green Belts and Protective Ecosystems
14	Integrated Ecosystem Restoration and Resilience: Addressing Soil Erosion in Key Albanian Regions
15	Combating Erosion and Flooding: Strategic Habitat Restoration and Reforestation in Key Albanian Regions
16	Sustainable Landscape Management: Enhancing Water Quality and Biodiversity at Viroi Lake in Gjirokastër
17	Enhancing Climate Resilience in National Parks and Protected Areas
18	Restoration of forest layers to protect crops in Vlorë
GREY MEASURES	
19	Strengthening Flood Protection: Riverbank Restoration and Floodplain Expansion Across Key Albanian Rivers
20	Expanding and Modernizing Irrigation Systems for Enhanced Agricultural Resilience
21	Sustainable Water Security through Rainwater Harvesting Infrastructure