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# ALBANIA

## SELECTED ISSUES

December 2022

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# ALBANIA

## SELECTED ISSUES

November 14, 2022

Approved By
**European Department**

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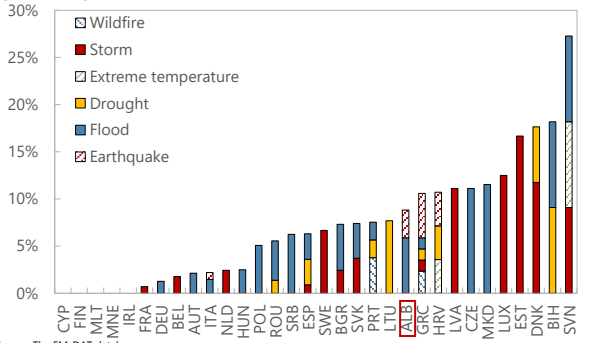
## CONTENTS

# ADAPTING TO CLIMATE CHANGE[1]

## A. The Impact of Climate Change

**1. Albania has been struck by numerous, costly natural disasters, with increasing frequency in its recent history due to climate change.** Over the last two decades, the frequency of natural disasters has increased, with floods and forest fires becoming more frequent as the impact of climate change is being increasingly felt.[2] Between 1980 and 2021, natural disasters are estimated to have affected about 438 thousand people and caused damages amounting to $802 million. On average, Albania is hit by close to one disaster per year,[3] with each natural disaster causing damage of about 1.3 percent of GDP and affecting about 5000 per 100,000 inhabitants. While the frequency of natural disasters in Albania is lower than in the European Union, the impact of each event is about twice as large in percent of GDP and affects a greater share of the population.

**Probability of Severe Natural Disasters[1]/, by Type (Percent)**




Source: The EM-DAT database.
1/ Severe Disasters are defined by their impact on GDP (larger than the 95th percentile of all the natural disasters in European countries).

**Table 1. Natural Disasters in Albania and Selected Peer Countries**

| | Natural Disaster (Total) Average per year | Damage 1/ (Percent of GDP) Mean | Median | Max | Population Affected 1/ (per 100,000 inhabitants) Mean | Median | Max |
|---|---|---|---|---|---|---|---|
| Albania | 0.8 | 1.3 | 0.6 | 4.9 | 4882 | 108 | 100,000 |
| Montenegro | 0.2 | | | | 332 | 101 | 1,027 |
| Serbia | 0.4 | 1.2 | 0.3 | 4.4 | 245 | 55 | 1,210 |
| North Macedonia | 0.6 | 1.8 | 0.4 | 9.1 | 2961 | 82 | 48,934 |
| Bosnia and Herzegovina | 0.5 | 2.1 | 2.5 | 2.8 | 2616 | 240 | 27,756 |
| EU-27 | 1.1 | 0.6 | 0.3 | 2.4 | 139 | 19 | 1,985 |

Source: The EM-DAT database; and IMF Staff calculations.
1/ Descriptive statistics of mean, median and maximum cost and population affected per occurrence.

[1] Prepared by Magali Pinat (EUR) and Linda Spahia (local office) with the excellent research assistance from Rohan Srinivas (EUR).

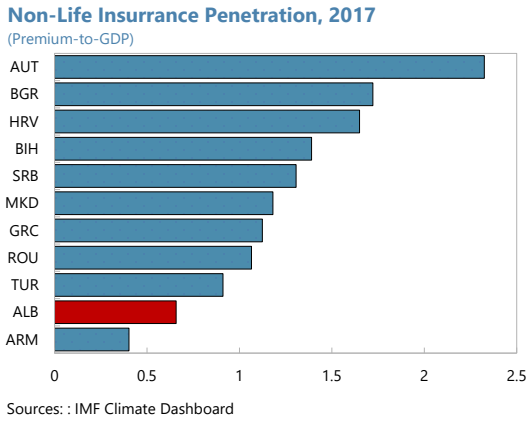
[2] Apart from climate-change related disasters, Albania is also prone to earthquakes. During the 2019 earthquake, 51 people were killed and 11,500 housing units were destroyed. Estimates from the Post-Disaster Needs Assessment (PDNA) show damages and losses totaling about e €1 billion (more than 7 percent of GDP).

[3] Since 1980, Albania has been hit by 35 disasters, implying the probability of a disaster each year at about 80 percent. Data on frequency of natural disasters, number of affected, and size of damage are from the Emergency Events Database (EM-DAT).

**2. Under the status quo, the intensity and frequency of severe weather events and natural disasters related to climate change are expected to increase further**. Projections[4] indicate that the mean annual temperature in Albania would increase between 1.3°C and 2.2°C by 2050, along with the frequency of extremely high temperatures. Precipitation is expected to decrease between 2.1 and 4.3 percent while the frequency and intensity of heavy rainfall events would increase. The global mean sea level is rising increasingly fast because of climate change. Sea level anomalies registered since 1993 reveal a trend for an increase in the sea levels along the coast of Albania.

**3. Climate change is likely to have significant impacts on Albania's population and economic growth[5] (Table 2).** Climate change-related disasters can lead to losses of lives, injuries, and destruction of homes. They also cause population and industries to lose access to essential services, including electricity, drinking water, and healthcare and educational facilities. The increasing risk of river floods and droughts is associated with higher risk of pressure on water supply infrastructure and given the high reliance of the country on hydropower, putting at risk electricity generation (Annex IV in Staff Report). Sea level rise is also expected to affect coastal population and tourism adversely. Increased temperatures and precipitation variability are expected to have a negative impact on the agricultural sector, which represents about 20 percent of the economy. Extreme temperatures pose a threat to agricultural production and heavy rainfall events increase the risk of crop losses. In the decade ending in 2020, forest fires have burnt over 200,000 hectares (equal to 19 percent of the total remaining forests).[6]

**4. Albania's low insurance penetration imposes a considerable burden on public finances, with the budget being the only line of defense in case of extreme weather events and natural disasters**. Non-life insurance penetration is low compared to peers. Despite an increase in recent years,[7] the Albanian Financial Supervisory Authority (AFSA) estimates that only 3 percent of properties are covered against extreme weather events and natural disasters. On the other hand, disaster relief programs are costly and take limited



Sources: : IMF Climate Dashboard

[4] Albania National Determined Contribution (NDC 2021) and World Bank Climate Change Knowledge Portal.

[5] Khan et al. (2019) find that in the absence of mitigation policies, a persistent increase in the average global temperature by 0.04°C per year (based on RCP 8.5) per year is associated with a reduction of the world real GDP per capita by more than 7 percent in 2100 and up to 9 percent for Albania.

[6] European Forest Fire Information System (EFFIS) and Instat.

[7] According to AFSA, the non-life insurance premiums increased to 0.9 percent of GDP at the end of 2021. However only 1/3 of this amount corresponds to voluntary insurances. Property insurance premiums against disasters are just 0.1 percent of GDP.

resources away from more productive investment,[8] especially given Albania's high public debt and gross financing needs. With the assistance of the World Bank, the authorities are preparing to pass legislation that will make disaster insurance compulsory.

**Table 2. Albania: Risks from Climate Change**

| |
|---|
| **Settlements** |
| **Infrastructure and built environment** |
| - Disasters cause loss of access to essential services such as shelter, electricity, drinking water, transport, health and educational facilities |
| - Loss of lives and livelihoods from climate-related disasters |
| - Loss of land for future development |
| **Water** |
| - Diminished capacity to provide water to the population and industry |
| - Unfulfilled demand for water in the summer |
| **Energy** |
| - Diminished capacity to provide power to the population and industry |
| - Unfulfilled demand for power in the summer |
| **Population** |
| **Lives and livelihoods** |
| Climate related disasters may cause: |
| - Loss of life and injury |
| - Destruction or damage to homes |
| - Limited access to services (water, electricity, health, education, etc.) |
| - Loss and/or disruption of livelihoods resulting from climate-related disasters directly (e.g., flooding of plants) or indirectly (e.g., loss of access to essential services like electricity or transport) |
| **Health** |
| - Loss of life and injury related to climate-related disasters, especially floods |
| - Increased prevalence of water-borne and heat-related diseases |
| - Decreased availability and/or quality of water and food |
| - Deterioration of air quality causing respiratory and cardiovascular diseases |
| **Tourism** |
| - Decreased attractiveness of tourism during summer due to high temperature |
| - Destruction or damage to touristic infrastructure, supporting infrastructure, biodiversity and natural landscapes |
| - Exposure of tourists to short-term health effects (heat strokes, etc.) |
| - Loss of beach area |

Source: Albania NDC 2021

[8] For instance, the government's reconstruction program following the 2019 earthquake cumulatively amounted to 3.5 percent of GDP between 2020–2022.

## B. How to Manage and Adapt

**5. Building climate-resilient infrastructure entails large upfront costs, but it pays over time and the fiscal costs can be minimized through good planning and support for private sector adaptation efforts.** A large share of Albania's critical infrastructure, such as roads, bridges, and commercial and industrial buildings, is prone to the adverse impacts from climate change. In particular, the coastal area has a high concentration of the population and generates almost three-fourths of Albania's GDP, mainly through tourism and services.[9] While the National Adaptation Plan identifies priority adaptation measures, it does not cost them.[10] The authorities recognise that some measures, such as building capacity and know-how has low costs and far-reaching benefits, while others, such as climate-proofing existing infrastructure, are costly and technically complex. The IMF estimates that the additional annual costs for climate-resilient infrastructure amounts to about 1.1 percent of GDP in Albania.[11] Despite higher upfront costs, well-managed climate-resistent investment is expected to be cost-effective over time. Prevention measures, such as upgrading building codes, better urban planning and risk zoning, and mandatory insurance, have no direct ficsal costs, and are policies that would change ex ante the private sector's risk-taking behavior and encourage investment in resilient infrastructure.[12] Strengthening financial inclusion and providing guidelines for adaptation across all sectors would support adaptation efforts by the private sector. The authorities are also working with the World Bank to improve emergency responses to natural disasters.

**6. Adaptation policies should be integrated into national decision processes and costed properly.** Due to Albania's high exposure to climate risks, it is important not only to identify desirable adaptation policies and actions in the framework of the 2015 Paris Agreement, but also to undertake steps—legal and institutional—to integrate them into national development priorities as well as medium-term planning and annual budget allocation decisions. Climate-sensitive policies should be integrated into every aspect of the budget cycle from (i) the setting of strategic and fiscal policy goals and targets, to (ii) budget preparation and adoption by the parliament (iii) the execution of the adopted budget and lastly (iv) the independent oversight and audit of the budget. Albania should also ensure fiscal consolidation goals are adhered to, and that its targets consider the costing of adaptation and other green transition priorities explicitly. Quantifying costs and benefits of adaptation policies and damages from inaction will help policymakers make informed decisions among competing priorities given the limited fiscal space.

**7. Integrating climate considerations into all aspects of the public finance management systems, or "green PFM", will also help.** Adapting the existing PFM framework to integrate a

[9] Gross Domestic Product by Statistical Regions in Albania, year 2020, Instat.

[10] The National Adaption Plan for Albania, 2021 only assesses the costs to mainstream adaption into policy-decision making, increase awareness, and prepare adaption plans across some main priority areas at Lek11bn (0.5 percent of GDP). This amount does not include any cost for building climate-resistant infrastructure.

[11] Aligishiev et al. (2022) and IMF (2020).

[12] Bellon and Massetti (2022).

**Table 3. Albania: Selected Adaption Measures**

| Sector | Planned Measures | Priority Level |
|---|---|---|
| **Governance:** Strengthening the policy and legal framework and enacting action plans and mainstreaming climate-change adaptation plans into national and sectoral strategies. | Develop adaptation plan for three main sectors (water, energy, agriculture) | Very High |
| | Develop risk management plans | Very high |
| | Revise building codes | High |
| **Financing and fiscal Planning:** Mobilization of financial resources for climate change adaptation | Establishing an Emergency Fund for Disaster Risk Response | High |
| | Design incentives and subsidies for smart climate practices (i.e. climate proofing buildings, energy efficient technologies) | Very High |
| | Developing insurance scheme and social protection systems for climate-change-related disasters | Medium |
| **Resilient Infrastructure:** Climate proofing coastal buildings and facilities to prevent further degradation. | Construction of protective infrastructure (sea defenses, expanding riverbeds etc) | Medium |
| | Climate proof buildings (thermal-isolation, and fire protection systems) | High |
| | Relocation of high-risk infrastructure (residential and social) in safer territories | Medium |
| **Water** | Climate proofing of existing infrastructure | High |
| | Increase efficiency of water use | Very high |
| **Energy** | Promote other renewable energy to diversify generation | Very high |
| | Promote energy efficiency | Very high |
| | Climate proof energy infrastructure | High |
| **Environment** | Protecting and restoring forests | Very High |
| **Agriculture** | Promote sustainable agricultural and fishing | Very high |
| | Improve irrigation (from gravity to sprinkle) and drainage systems | Very high |

Source: Albania Revised National Determinized Contributions 2021

climate-sensitive approach could help promote fiscal policies that are responsive to environmental and climate concerns.[13] A key challenge for Albania will be to strengthen its existing weak public investment management (PIM) frameworks, and to include climate-related considerations in evaluation and selection criteria. The IMF has developed a climate change module to complement its PIMA tool and stands ready to assist authorities in their efforts. The C-PIMA module focuses on the assessment of the five institutions that incorporate the most critical climate-related elements: (i) climate-aware planning, (ii) coordination among entities, (iii) project appraisal and selection, (iv) budgeting and portfolio management, and (v) risk management.[14]

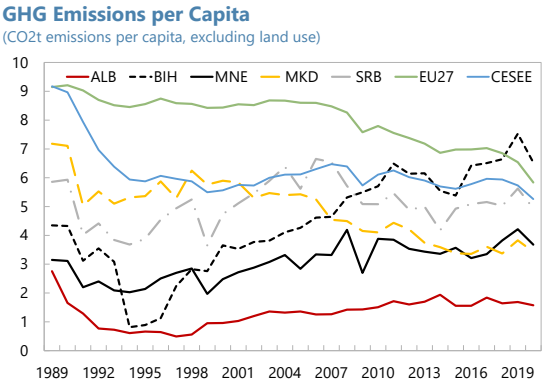
[13] Gonguet, Wendling, Aydin, and Battersby (2021).

[14] IMF (2021).

**8. Albania needs to generate additional revenue to meet the investment needs of climate adaptation.** Albania has very limited fiscal space to accommodate additional sizable investment needs, while also committing to its debt consolidation path. Strong PFM institutions and strengthened PIM frameworks would attract more financing from IFIs and various climate funds.[15] The implementation of a sound Medium-Term Revenue Strategy (MTRS) and better utilization of environmental taxes would help. Over the medium to long term, raising carbon taxes for heavy polluters (pre-announced and rising to reach internationally suggested carbon price floors) would help modify behavior and yield revenue to finance mitigation and adaption efforts. Regulations and feebates could also help. Some small-scale initiatives, such as Tirana municipal government's cost sharing of retrofitting buildings, could be scaled up if proven successful. Other initiatives like a reduced VAT rate for electric buses used in public transport, have been less successful and should be reviewed and replaced with revenue neutral feebates[16] that could motivate the use of more environmentally friendly vehicles, gradually replacing the existing fleet.

### Box 1. The Role of Albania in Mitigating Climate Change

**Albania's contribution to global greenhouse gas (GHG) emission is limited.** Total emissions peaked at 9 million tCO2e in 1989 during the communist era due to inefficient and high-emission heavy industries, before falling to 1.5 million tCO2e in 1997 in tandem with economic activity collapse due to the economic crisis triggered by the failure of several financial pyramid schemes. Since then, emissions have increased but by a lower rate than GDP growth and amounted to only 0.01 percent of global emission in 2019[1]. In 2019, Albania's per capita GHG emissions reached 1.68 tCO2e per capita, ranking 141 out of the 218 countries and the second lowest in Europe. Albania's per capita GHG emissions are significantly lower than regional peers. The agricultural sector has the largest contribution to total emissions, accounting for almost 30 percent. Transport and industry emissions represent 15 and 12 percent of Albania's GHG emissions, respectively.




Sources: Our World in Data

**The authorities have committed to reducing Albania's GHG emissions further.** In the June 2022 update to the first NDC,[2] the Albanian authorities committed to decreasing total emissions by 20.9 percent by 2030 compared to the baseline, through improvement in energy efficiency in transport and residential units, increase in the use of renewable energy, and penetration of natural gas. Albania also signed the Sofia Declaration on the Green Agenda for the Western Balkans in 2020, committing to carbon neutrality by 2050. In view of the recent energy crisis, the authorities intend to pilot schemes encouraging households and businesses to invest in renewable energy (notably solar panels), while sharing some of the investment costs. These policies could support decarbonization and help to address energy poverty, since energy intensity and energy expenditure are higher for low-income households.

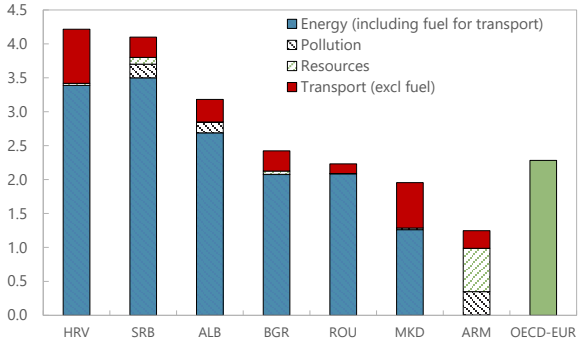
[15] Cheng and Han (2022).

[16] Feebates are an alternative tool that governments can use to charge a fee on polluters and give a rebate for energy-efficient and environmentally friendly practices. They encourage people to reduce emissions by choosing hybrid vehicles over fossil fuel-powered ones or using renewable energy like solar or wind over coal.

## Box 1. The Role of Albania in Mitigating Climate Change (concluded)

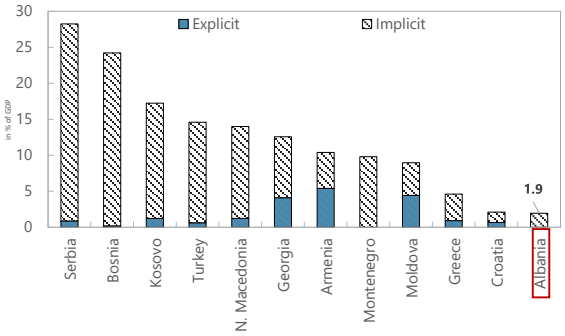
**To reach its climate goals, Albania will have to implement further reforms, including taxing large polluters.** In line with regional peers and above the average of European OECD countries, Albania's environmental taxes stood at 3.2 percent of GDP in 2019 or 12.5 percent of total tax revenue.[3] Compared to peers, exemptions in Albania are limited. Since the war in Ukraine and the sharp increase in oil prices, the government has rightly refrained from reducing tax rates on energy products and removed some fuel excise exemptions (effective from 2022), opting instead to provide targeted support for the most affected households. Carbon taxes are applied mostly downstream to fuel for road transport. However, there are no carbon taxes for large industrial polluters. Albania manages its emissions mostly through regulations, imposing a flat tariff by type of activity, which is not linked to the carbon content of emissions, and is not part of the European Emission Trading Schemes (EU-ETS). It has yet to establish effective monitoring for carbon emissions.

**Environmental Taxes, 2019**
(Percent of GDP)




Source: OECD, National authorities

**Fossil Fuel Subsidies, 2019**
(Percent of GDP)




Source: IMF Climate Dashboard

[1]Despite the availability of data for 2020, the analysis mostly uses 2019 data, as some of the 2020 indicators, such as energy consumption or energy imports, were impacted by the pandemic and overall economic slowdown.

[2]Albania NDC, 2021.

[3]The drop of environmental taxes in 2020 to 2.84 percent of GDP is attributed to the Covid 19-related lockdowns.

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