GEORGIA CLIMATE FACTS AND POLICY

16 MILLION tCO₂e **4.4** TONNES PER CAPITA



Sources: Third national communication

- (2015); latest population, energy and
- economic data from World Development
- Indicators of World Bank:

http://data.worldbank.org/indicator

POLICIES AND PROCESSES

Policy framework

Strategy for regional development for 2010-2020 Climate change strategy until 2030

EU-Georgia Association agreement

Assistance in mitigation, adaptation, carbon trading, low-carbon technologies, and climate mainstreaming

2030 targets and INDC

Mitigation

Unconditional reduction of GHG emissions by 15 per cent below the business as usual (BAU) scenario for 2030

Conditional reduction of GHG emissions by 25 per cent below BAU for 2030 with international financial support

Adaptation priorities

Agriculture, forests, costal zones, early warning system for climate-related extreme events

GHG inventory of all sectors and gases

Third national communication to UNFCCC First biennial update report to UNFCCC National inventory report to UNFCCC

CLIMATE ACTIONS

GHG emissions and energy efficiency

Low emission development strategy on GHG emission reductions starting in 2020 National energy efficiency action plan under preparation

Adaptation initiatives

Assessment of risks and losses, drought and flood response plans, irrigation management, coastal zone protection, agriculture, forests

NAMAs

Sustainable energy in rural areas, low-carbon buildings, urban transport sector

Local initiatives

Sustainable energy action plans established in 10 cities 13 Georgian cities signatories to Covenant of Mayors

CLIMATE FINANCE

EU

Rehabilitation of the Enguri hydropower plant Sustainable pasture management (ClimaEast project), climate resilience of forest ecosystems

EBRD

Over US \$100 million for Dariali hydropower plant (with carbon offsetting through reforestation) and Gori wind power plant (20 MW)

Eastern Europe Energy Efficiency and Environment Partnership (E5P)

Tbilisi bus project

GEF

Sustainable transport in Batumi and Ajara cities, renewable energy, climate resilience of agriculture, production and use of biomass fuel

USAID

Low emission development strategy Institutionalization of climate change adaptation and mitigation at local and national levels Waste management technologies

UNDP - Adaptation Fund

Climate resiliency and flood management



Energy and emissions

Fossil fuel energy installations and carbon emissions

CO₂ emissions from thermal power plants (coal/oil/gas), million tonnes per year:

more than 0.5 Thermal power plant (coal/oil/gas) 0.1 - 0.50.001 - 0.1

Renewable energy installations and plans ✓ Wind ✓ Large hydropower (more than 100 MW installed capacity) ✓ Solar (under planning) ✓ Forests (high CO₂ absorption potential)

Policies and institutions

The Ministry of Environment and Natural Resources Protection (MENRP) is the main coordination body on climate change. Within the MENRP, the Climate Change Service acts as the main implementing entity and the National Environmental Agency is the main source for climate data and studies. Georgia has recently finalized and submitted the Third national communication (with GHG inventory for 1990-2011), the First biennial update report and the National inventory report for 2010-2013 to UNFCCC.

The Strategy for regional development for 2010-2020 covers climate change adaptation and sustainable development, and promotes renewable energy. Georgia has a Climate change strategy until 2030, and in 2016 finalized a Low emission development strategy (LEDS), which is a key instrument in guiding the achievement of Georgia's GHG emissions reduction target. In addition, the socioeconomic development strategy, approved in 2014, aims for energy savings and energy efficiency measures, to be supported by relevant legislative mechanisms in line with European Union norms.

The MENRP has developed a roadmap for EU approximation in response to the climate action goals stated in the EU-Georgia Association agreement. The roadmap, which is already being implemented, pays special attention to the development and implementation of a National adaptation plan of action (NAPA), a Low emissions development strategy, and measures to promote technology transfer and phase-out of ozone-depleting substances and fluorinated greenhouse gases.

Climate actions

The dissolution of the Soviet Union and the collapse of the centrally planned economy in the early 1990s caused a significant reduction in national GHG emissions with the lowest level reaching 8.8 million tCO₂e in 1995. In 2011, Georgia's GHG emissions were 16 million tCO₂e, 33 per cent of the 1990 emissions level of 48 million tCO₂e.

Georgia largely depends on imported energy resources and 69 per cent of total energy consumption comes from fossil fuel. At the same time, Georgia relies heavily on hydropower for electricity production and plans to satisfy 100 per cent of electricity demand by hydropower in the future. The country has confirmed financing for several large (over 100 MW), medium, and small hydropower plants, some of which are already in the construction phase. In addition, Georgia is interested in developing other renewable energy potential such as solar, wind, geothermal and biomass. Georgia has become a full member of the Energy Community and complies with EU targets on energy security.

In April 2016 Georgia signed the Paris agreement on climate change and its ratification is expected. In its INDC, Georgia plans to unconditionally reduce GHG emissions by 15 per cent below the business as usual scenario for 2030. This is equal to a reduction in emission intensity per unit of GDP of approximately 34 per cent from 2013 to 2030. The 15 per cent reduction target will be increased up to 25 per cent, subject to international support and technology transfer. This target is equal to a reduction of emission intensity per unit of GDP of approximately 43 per cent from 2013 to 2020.



Impacts of climate change

~	Sea and coastal areas: increase of sea level, salinization of coastal areas, deficit of safe drinking water, reduction of quality and diversity of fisheries
\sim	Risk of floods
	Flash floods
*	Heatwaves
	Droughts

	Intensifying landslides
\bigtriangledown	Mud slides
*	Intensifying glacier melt
0	Intensifying storms
0	Land degradation

Georgia scorecard

- Country's share of global emissions
- Country's emissions per capita
- General climate action ambition

Mitigation commitment:

- Emissions reduction
- Complete the second sec
- Decoupling from economic growth
- Contraction Renewable energy prospects

Adaptation action

National climate policy actors

Policy leadership: Ministry of Environment and Natural Resources Protection (MENRP)

UNFCCC focal point: Climate Change Service of the MENRP

GHG inventory: Climate Change Service of the MENRP

Climate technology network coordination: Government Coordination Committee on Low emissions development strategy



2013 to 2030. The 25 per cent reduction below the BAU scenario would also ensure that Georgian GHG emissions by 2030 remain 40 per cent below the 1990 levels.

Georgia is currently drafting a National energy efficiency action plan, which can have significant mitigation potential. In addition, the voluntary reduction of GHG emissions by Georgian cities that have joined the Covenant of Mayors will contribute further to preand post-2020 mitigation in the country.

Georgia is seeking to prioritize adaptation measures and is identifying associated financial needs (domestic and external). Sea level rise impacts are projected to cause multiple negative consequences in the coastal zone of the country. The second Technology needs assessment recommends a combination of coastal zone protection technologies to prevent significant damage by rising levels of the Black Sea. In the absence of adaptation measures, losses in the tourism sector alone are estimated at US \$2 billion by 2030. For the agricultural sector, planned adaptation measures include development of emergency response plans for droughts and floods; innovative irrigation management; implementation of site-specific anti-erosion measures; and the establishment of information centres that provide guidance on adaptive agriculture.

Climate finance

Accessing adaptation funding is crucial for Georgia. Economic losses in the absence of adaptation measures for 2021-2030 are estimated at US \$10-12 billion, while adaptation measures for coastal infrastructure, water management, agriculture and forest management are estimated to cost US \$1.5-2 billion.

The development of the Low emission development strategy was financed by USAID while the EU and Germany provided support for the preparation of Georgia's INDC. The EU, EBRD and GEF provide significant funding for hydropower development, renewable energy and energy efficiency. Georgia is also a participant in the Eastern Europe Energy Efficiency and Environment Partnership. Several donors such as the Adaptation Fund, EU and USAID fund climate resiliency and adaptation measures.

Sources of information for the scorecard

National climate-related reports: INDC, Third national communication, GHG National inventory report, Roadmap for EU approximation in environment and climate action, EU ClimaEast project

Analytical materials and expertise of Zoï Environment Network, as well as Georgian organizations and experts



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