



Georgia Shapes Its Climate Goals to Avert Disasters and Protect Its Legacy



INTRODUCTION

Surrounded by the Greater Caucasus Mountains on the northeast and the Black Sea to its west, Georgia has long been celebrated for its varied natural beauty and rich cultural history. But Georgia's unique geographic location also makes it extremely vulnerable to the effects of climate change.

In June 2015, Georgia's capital city of Tbilisi experienced a flash flood that tore through downtown neighborhoods, demolishing roads and homes and inundating the city zoo. Wildlife escaped the zoo and roamed the city streets for days. 24 people died in the incident and the damages were assessed at \$100 million. It awoke urban residents to the grim reality that disasters triggered by climate change were not secluded to remote mountainous areas. "This flood showed that climate change [has] become a part of our daily lives and we have to think about it more than we were before," explained Nino Tandilashvili, Deputy Minister of Environment Protection and Agriculture, as he recalled the incident.



The disaster struck just as Georgia was preparing to submit the first draft of its Intended Nationally Determined Contribution (INDC) to the United Nations Framework Convention on Climate Change (UNFCCC). In it, Georgia outlined its commitment to unconditionally reduce its greenhouse gas (GHG) emissions by 15 percent below the business as usual scenario and conditionally by up to 25 percent by 2030. The government says it will decrease Georgia's GHG emissions by around 35 percent below the 1990 levels. The following year, in 2016, Georgia formally ratified the Paris Agreement, joining 183 countries in the global fight against climate change.

However, much work remains in streamlining Georgia's climate goals across different sectors of government ministries and local authorities, and also in translating its NDC into concrete policies and projects with clearly defined goals and objectives.

35%

The government says it will decrease Georgia's GHG emissions by around 35 percent below the 1990 levels.

LEVERAGING THE NDC PARTNERSHIP TO MOBILIZE CHANGE

Georgia joined the NDC Partnership in March 2017 to become part of an international platform for dialogue on the Paris Agreement implementation path, but quickly realized that being a member of the Partnership offered much more in terms of technical support. By joining the Partnership, Georgia now has access to the resources and knowledge of more than 150 members worldwide to prioritize and concretely outline the steps Georgia needs to implement its NDCs.

With the support of NDC Partnership country member Germany, Georgia is developing a concrete Climate Action Plan to be implemented by 2030. This work is supported by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH with funding from the International Climate Initiative (IKI). Simultaneously, the NDC Partnership is providing support to conduct public consultations on NDC implementation and revision. Georgia's enhanced NDC will focus on updating climate goals to be more ambitious and include transparent implementation plans to reach these new targets. The NDC Partnership is also providing support to conduct a comprehensive mapping of measures that will need to be implemented with international support in order to achieve Georgia's climate goals.

Through its NDC, Georgia is increasing adaption and mitigation efforts by focusing on key sectors, such as developing renewable energy capacity and projects, increasing energy efficiency in the built environment, and using forests to implement nature-based solutions.

ADAPTATION AS A NECESSITY, MITIGATION AS INSURANCE

Across Georgia, rainy seasons are met with mudflows and landslides in the mountainous areas, while drought and heat waves strike the lowlands in summer. The country's annual average temperature has risen by 0.5 degrees Celsius in the last decade and natural disasters along temperature and precipitation shifts have become annual occurrences. Adapting to these changes has become crucial, especially for rural communities where livelihoods are dependent on agricultural activities that employ about 40 percent of the total population¹.

While adaptation is a necessity, mitigation lies at the heart of Georgia's NDC. The country contributes less than 0.3 percent of global emissions but with a growing population and steady economic growth, energy demand has spiked and is expected to continue increasing. Warming trends, especially during the summer months, are contributing to an increase in

1 <https://data.worldbank.org/indicator/sl.agr.empl.zs>

energy demand, according to George Abulashvili, head of the non-profit, Energy Efficiency Centre Georgia.

“It’s interconnected—climate change and energy,” he said. “Energy use contributes quite a lot to climate change, but climate change is also affecting energy consumption. So, it’s an interconnected loop. The more we can rely on sustainable energy and more efficient energy resources, the less connected these two factors will become.”



RENEWABLES FOR CLEAN AND SUFFICIENT ENERGY DEVELOPMENT

Georgia’s energy supply relies heavily on oil and electricity imports and with rising demand. Increasing access to renewable energy and energy efficiency are key to more sustainable development from a mitigation and economic standpoint. Renewables are emerging as a sought-after energy source and the country’s first wind farm is a testament to potential to develop the sector further.

The 20.7-megawatt Qartli wind farm lies 90km west of the capital city in the Gori district. It was built with a USD22 million loan from the European Bank for Reconstruction and Development (EBRD), as well as grants from the European Union and other international donors. It is expected to recoup investment costs in eight years and there are now ongoing feasibility studies to extend the capacity to 100 megawatts as well as to build more wind farms in different regions to reach a total capacity of 330 megawatts by 2021. But the potential for harnessing renewable energy in Georgia is much higher according to experts.

“Based on studies, Georgia has 1,500 megawatts potential for wind farms and about 800 megawatts for solar,” says Tornike Kazarashvili, Chairman of the Board of Directors of Qartli Wind Farm. “We need to start developing projects, harnessing all of these resources, and converting them into energy.”

Installation of solar systems has also been increasing as businesses, schools, and residents turn to solar systems for more affordable and reliable energy. For the last 20 years, solar energy specialist and owner of Sun House Ltd., Konstantine Kobakhidze estimates he has installed more than 500 off-grid solar systems across Georgia, covering about 200 villages and 70 monasteries, as well as installing specialized systems for national parks. He says the introduction of a net metering support scheme that allows grid-tied solar systems where owners can sell surplus energy to the central grid has also greatly encouraged small-scale renewable energy development among home owners and institutions.

Georgia has completed its National Energy Efficiency Action Plan (NEEAP) which outlines a target of 35 percent of its electricity consumption coming from a mix of renewable sources including solar, wind, and hydropower by 2030. The NEEAP takes effect across all energy consuming sectors including industry, transport, construction, and agriculture.

“Renewables are for energy supply. Energy efficiency is going to control our demand increase,” explains Natalia Jamburia, Head of the Energy Efficiency Policy division in the Ministry of Economy and Sustainable Development of Georgia. “This Action Plan will not only decrease energy demand and reduce GHG emissions, but it also a key component of reaching mitigation targets as outlined in Georgia’s NDC.”

Georgia is now in the process of drafting the National Energy and Climate Plan in parallel with the Climate Action Plan and the updated NDC.

Jamburia adds that increasing energy efficiency is not only about climate action, it is also developing linkages between climate plans and sustainable development while improving the livelihoods of Georgia’s citizens.

“Energy efficiency is a tool to improving quality of life in Georgia,” Jamburia said. “By improving our indoor climates through energy efficiency, we are reducing monthly energy bills and also improving our environment. Improving energy efficiency has a direct impact on sustainable development.”

While the central government is working closely with local authorities in defining its NDCs, municipalities have also stepped up local efforts to limit GHGs by signing on to the Covenant of Mayors, a global movement of local authorities voluntarily committed to implementing EU climate and energy objectives. Through the Covenant of Mayors, signatory cities pledge action to support the implementation of the EU’s 20 percent greenhouse gas reduction target by 2020 and the adoption of a joint approach to tackling mitigation and adaptation to climate change. In Georgia, 23 municipalities are signatories to the Covenant of Mayors and are working on Sustainable Energy Action Plans to redevelop and modernise public infrastructure and services.


Rustavi, located just 25 km southeast of Tbilisi, was the second city to sign on to the covenant after Tbilisi. Today, half the city’s street lamps have been replaced by energy saving LEDs while the municipality office itself self-generates 40 percent of its energy requirements through solar panels. There are plans to replicate this design across all municipality buildings while improving insulation and heating in public service buildings like kindergartens for improved energy efficiency. The city also recently introduced a 4km long bicycle lane while undertaking urban greening projects and is working on tackling pollution in the transport sector. For a small municipality like Rustavi, partnerships are crucial to help attain the objectives they signed on to.

REGENERATING FORESTS AS CARBON SINKS

More than 40 percent of Georgia is covered with forests, with many untouched natural old growth forests. Forests are natural carbon sinks, absorbing earth warming carbon dioxide and releasing life-giving oxygen, and are crucial for watersheds, acting as a natural filtration system for rainwater that in turn helps replenish and sustain natural water reserves. But for the past decade, a lack of forest management has led to uncontrolled human exploitation of forest reserves. Furthermore, long dry spells and warmer temperatures have resulted in increased incidents of forest fires as well as growth in pests and diseases.

Georgia's NDC pledges to rehabilitate and reforest more than 1,500 hectares of degraded forest land by 2030 while implementing special silviculture methods in an additional 7,500 hectares to help primary forests regenerate natural cover. Since the early 2000s, the National Forest Agency of Georgia has been working on restructuring itself with the help of international donors and partners to adopt and implement sustainable forest management practices and introduce efficient energy alternatives like biomass gas and fuel briquettes from leftover forest produce to local populations to reduce their dependence on forest resources. A [new forest code](#) that stresses the protection of national resources has been adopted in May 2020.

"Forests are a priority for our government and it's on the agenda," asserts Natia Iodarnishvili, Deputy Head of the National Forestry Agency. "It's well known that forests are not only an important natural resource, but they play a really important role in the mitigation of climate change."



**"Forests are a priority
for our government
and it's on the
agenda,"**

– Natia Iodarnishvili,
Deputy Head of the
National Forestry Agency

GIZ has been instrumental in implementing projects with Georgia's National Forest Agency and helping the country gain access to mobilize necessary funds from the Green Climate Fund. These funds are now being utilized to expand forest management activities to cover 250,000 acres of the country's forest, which could potentially sequester more than 6 million tons of carbon dioxide equivalent.



AN NDC FOR A CLIMATE DISASTER FREE TOMORROW

Georgia is committed to doing its share and transparently sharing its shortcomings. This is where the NDC Partnership and its members have been key in helping Georgia prioritize and clearly define its objects while also providing the support needed to access funds to implement clearly defined projects.

In December 2020, Georgia will present its updated NDC at COP26 with a clear objective of increasing its ambition. Ongoing dialogues are being held at the national and regional level on the NDC process, which is actively engaging municipalities in strategic decision making processes.

“Almost all the projects which we have in the country are at the municipal level,” says Nino Tandilashvili, Deputy Minister of MEPA on the importance of stakeholder involvement in the NDC process. “Sometimes projects are planned by the municipality, sometimes by the central administration of the government. So municipalities also need to understand the importance of these topics and they also need to feel that they are part of the whole process.”

There have also been regular discussions with different stakeholders on Georgia's NDC process. Inputs from these stakeholders, including student groups in schools, civil society bodies, and businesses, will be reflected and incorporated in the Climate Action Plan. This engagement is instrumental to ensure Georgia's climate goals reflect the awareness and willingness of its citizens to adopt the policies around it.

“Georgia is a small country, but it's part of the globe and we want to add our voice and our contribution to the process that is happening worldwide,” says Abulashvili, sharing his hope that Georgia's NDCs will reflect the country's continued commitment to fight global climate change to protect the country's staggering natural and cultural beauty.

CREDITS

This insight brief was written by Pearly Jacob of the NDC Partnership Support Unit.



NDC PARTNERSHIP SUPPORT UNIT

WASHINGTON, DC, USA OFFICE

World Resources Institute
10 G Street NE Suite 800, Washington, DC 20002, USA

Phone: +1 (202) 729-7600

Email: supportunit@ndcpartnership.org

ndcpartnership.org

BONN, GERMANY OFFICE

P.O. Box 260124, D-53153
Bonn, Germany

Phone: (49-228) 815-1000

Email: supportunit@ndcpartnership.org