

Georgia's Updated Nationally Determined Contribution

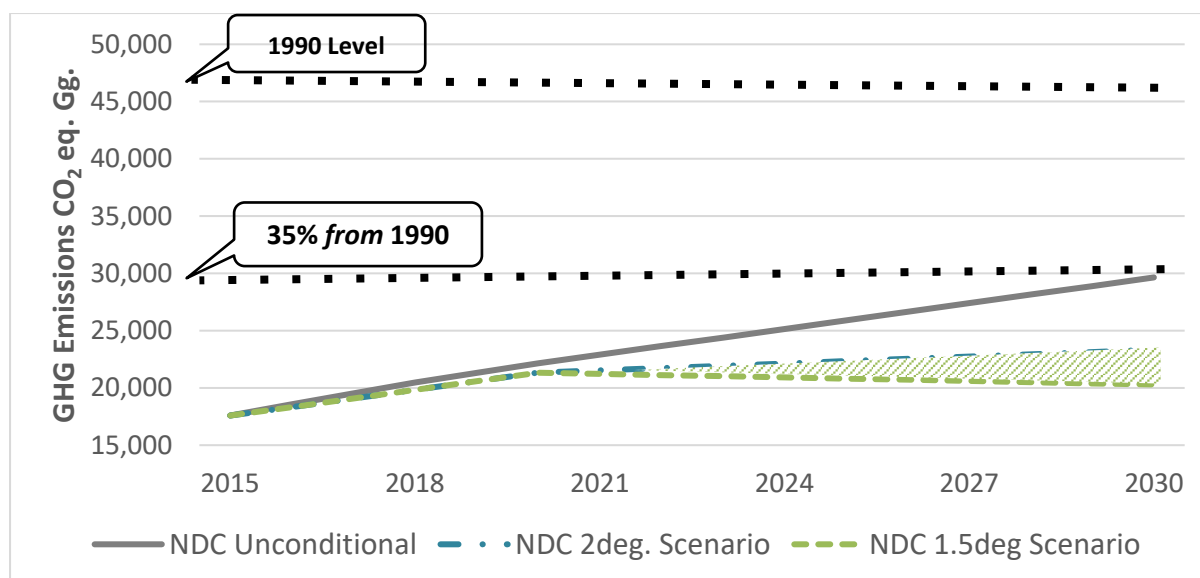
In accordance with the UNFCCC COP-21 decision 1/CP.21 paragraph 24 Georgia is pleased to communicate its updated Nationally Determined Contribution (NDC), as well as information to facilitate the clarity, transparency, and understanding of the contribution pursuant to the decision 4/CMA.1.

1 DESCRIPTION OF GEORGIA'S NATIONALLY DETERMINED CONTRIBUTION

1.1 TARGETS

1. Georgia is fully committed to an unconditional limiting target of 35 % below 1990 level of its domestic total greenhouse gas emissions by 2030;
2. Georgia is committed to a target of 50-57% of its total greenhouse gas emissions by 2030 compared to 1990, in case the global greenhouse gas emissions follow the 2 degrees or 1.5 degrees scenarios respectively, with the international support;
3. The updated Nationally Determined Contribution (NDC) of Georgia sets Climate Action Plan for the determination of mitigation measures contributing unconditional and conditional mitigation targets achievement;
4. Georgia is committed to study its adaptive capacity to climate change by mobilizing domestic and international resources for the sectors particularly vulnerable to climate change.

Figure 1. Nationally Determined Contribution Targets



1.2 TARGET TIMEFRAME

5. Georgia has determined the next decade, between 1st January 2021 and 31st December 2030, to be the timeframe for the implementation of the country's Nationally Determined Contribution.

1.3 REFERENCE YEAR

6. Pursuant to paragraph 1 of the Nationally Determined Contribution of Georgia, the updated reference approach considers the level of anthropogenic emissions by sources of greenhouse gases estimated for the year of 1990.
7. The national total greenhouse gas emissions in 1990¹ may be a subject of update in case of recalculation due to continuous methodological improvements under the Biennial Transparency Report.

1.4 SCOPE & COVERAGE

8. The emission limitation targets is based on the economy-wide approach for the analysis of seven sectors such as transportation, building, energy generation and transmission, agriculture, industry, waste, and forest²;
9. Georgia scopes to cover, to the extent possible, greenhouse gases not controlled by the Montreal Protocol by including them in the National Greenhouse Gas Inventory, including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF₆), and nitrogen trifluoride (NF₃);

¹ In case of recalculation all following years are also subject of update in accordance to the time series consistency principle

² The emission limitations/removals from the categories of land use, land use change and forestry is excluded from the projections until the statistical data of the land category changes will be designed, except the firewood consumption

10. Georgia scopes to further cover, to the extent possible, managed forest and soil carbon sinks from the following pools: above-ground biomass, below-ground biomass, litter, deadwood and soil organic carbon.
11. The adaptation to climate change covers the most vulnerable sectors of agriculture, forestry, human health, infrastructure, tourism, surface and ground water resources, mountain ecosystems and biodiversity;
12. The observation of the impacts of extreme weather events on Georgia's population, induced by climate change during the last decades, reveals the following vulnerable groups requiring urgent adaptation measures: children and youth, women, older persons, persons with disabilities, persons with chronic diseases, internally displaced persons and people displaced as a result of disasters caused by climate change or threatened by climate change;

1.5 AMBITION & FAIRNESS

13. In 2015, total domestic greenhouse gas emissions (excluding those from land use, land-use change and forestry) reached approximately 39% of emissions level in 1990;
14. Georgia's new unconditional target limits national greenhouse gas emissions average annual growth rate approximately to 3.0% instead of 5.7% estimated for the last decade pursuant to the Fourth National Greenhouse Gas Inventory Report;
15. Under the 1.5 degrees scenario Georgia is conditionally committed to reaching its emission peak during the implementation period of the updated Nationally Determined Contribution between 2021 and 2030;
16. Georgia's unconditional mitigation target is equivalent to reducing total domestic greenhouse gas emissions per capita by approximately 16% over the period of 1990-2030.
17. Georgia takes commitments under the updated Nationally Determined Contribution taking into account the domestic circumstances, resources and capacities, to contribute its fair share of the required global effort and to combat climate change. Georgia states that it is vital for the world society to share the required efforts against global warming in a fair and equitable manner;

2 NATIONAL CIRCUMSTANCES AND INSTITUTIONAL ARRANGEMENT

2.1 GOVERNMENT STRUCTURE

18. Since 1996 Georgia has been a Non-Annex I Party to the United Nations Framework Convention on Climate Change. In 1999 Georgia ratified the Kyoto Protocol and in 2017 acceded to the Paris Agreement;
19. Article 51 of Georgia's Law on Environmental Protection is a national legal act covering climate change overarching governance principles and Article 53 of Georgia's Law on Ambient Air Protection is a national legal act covering climate change governance matters.
20. The Ministry of Environmental Protection and Agriculture of Georgia is mandated to coordinate the implementation of national climate change policy and Georgia's strategy for international climate change negotiations under the United Nations Framework Convention on Climate Change;
21. Georgia is committed to operating an governmental Climate Change Council established by the decree #54 of the Government of Georgia dated 23rd of January, 2020 for effective implementation of the climate change policy;
22. The Ministry of Environmental Protection and Agriculture of Georgia and the Ministry of Economy and Sustainable Development of Georgia are jointly responsible for coordinating climate and sustainable energy-related activities at a local level for the municipality's members of the Covenant of Mayors;
23. Georgia recognises the substantial role of municipalities in the achievement of the NDC and welcomes all parties at the municipal level, who will be a member of the EU Initiative - Covenant of Mayors for Climate and Energy by the year of 2024, to work on the development and implementation of Sustainable Energy and Climate Action Plans for 2030.

2.2 ECONOMIC PROFILE

24. Georgia acknowledges the importance of the country's current economic development dynamics while updating the Nationally Determined Contribution.
25. The updated Nationally Determined Contribution of Georgia takes into account that the country with a small, open and transitional market economy is a developing, upper-middle income country (TheWorldBankGroup, 2019). The gross domestic product (GDP) per capita amounted to 4,345.5 USD in 2018 (GeoStat, 2019) with the average annual real growth 6.5% within the period of 2000-2018.

26. The updated Nationally Determined Contribution of Georgia considers that the trade to GDP ratio is approximately 71%, but its international position is not desirable as imports dominate over exports. The foreign direct investments, the most volatile macroeconomic variable in the economy, amounted to 1,265 million USD (GeoStat, 2019) in 2018. The major climate related macroeconomic variables are summarized in the Table 1 beneath.

Table 1. Basic Macroeconomic Statistics of Georgia

Variable/Year								
Real GDP, million GEL *	5,676	13,920	18,014	22,110	22,819	23,528	24,636	25,798
Real GDP Growth Rate, %*	6.3	10.3	7.2	4.4	3.2	3.1	4.7	4.7
Population, thousands.*	4,117	3,917	3,800	3,717	3,722	3,729	3,726	3,730
GREENHOUSE GAS Emissions, Gg CO ₂ eq.**	10,479	10,684	13,207	16,278	17,591	NE	NE	NE
Capital Formation, million GEL*	NE	NE	4,009	7535	9,032	10,310	11,238	NE
FDI, million USD*	131	453	866	1,818	1,729	1,650	1,963	1,265

Sources: *The National Statistics Office of Georgia; **Georgia's Second Biennial Update Report.

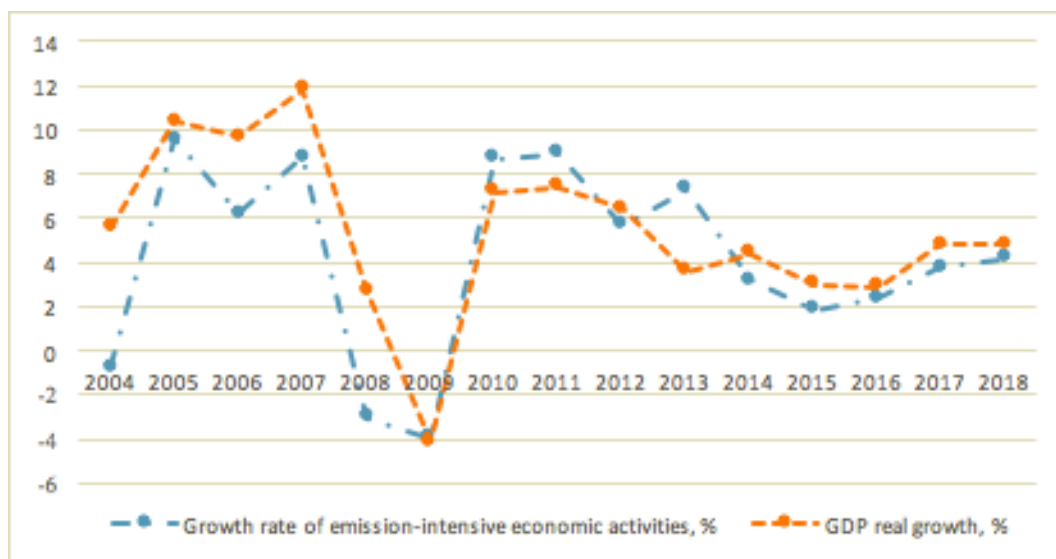
27. The updated Nationally Determined Contribution of Georgia also takes into consideration that the service sector is dominant in the Georgian economy and its share is 68% in total economic activities. The shares of industry and agriculture in the total economic activities are approximately 24% and 8%, respectively (source: National Statistics Office of Georgia).

28. Taking into account that the average growth rate of the greenhouse gas emissions were around 4.3% within the last 18 years, the updated Nationally Determined Contribution of Georgia emphasizes a number of factors that affect the country's greenhouse gas emissions, such as gross domestic product (GDP) real growth, demography, investments, energy prices, technological progress, energy consumption, behavior and attitudes, and so forth. The real GDP and energy consumption are key drivers of greenhouse gas emissions in Georgia.

29. Georgia notes that due to several reasons, including economic recessions, institutional instabilities, external factors (global crises, trade embargo, economic crises in neighboring countries, energy price shocks, etc.), the trend of the country's greenhouse gas emission is not stable and is characterized by high volatility.

30. Georgia acknowledges that there is a close link between emissions-intensive activities (such as agriculture, transport, manufacturing, energy distribution) and the real GDP. The climate-related economic activities gradually increased over time within the last decade with an average growth rate of around 4.2%, which is lower than the growth rate of GDP (5.4%) (see Figure 3).

Figure 2. Growth rates of Real GDP and Climate-related Economic Activities



Source: National Statistics Office of Georgia

2.3 POPULATION & VULNERABLE GROUPS

31. The updated Nationally Determined Contribution of Georgia takes into account the current dynamics of Georgia's population (Annex c) and assumes that the population of Georgia will be kept within the range of 3.6-3.8 million by 2030;
32. The updated Nationally Determined Contribution of Georgia acknowledges that vulnerable groups listed in paragraph 12 with the scarcest resources for a living are likely to face some of the most immediate threats of climate change;
33. Georgia is committed to identify and prioritize the needs of the children in climate change adaptation efforts during the National Adaptation Plan development;
34. The updated Nationally Determined Contribution of Georgia invites national stakeholders to provide children and youth with climate change education, awareness raising and training;
35. Georgia is committed to identify the most vulnerable populated areas in the country with a threat of displacement within its Fifth National Communication to the UNFCCC and invites international partners for the development of protecting programmes for children and their families who are forced to move as a result of disasters or crisis induced by climate change;

36. The updated Nationally Determined Contribution of Georgia acknowledges the needs of particular knowledge, resources, and services for the disabled population to effectively respond to climate change;
37. The updated Nationally Determined Contribution of Georgia invites national and international stakeholders to design educational programmes for the disabled communities based on the climate events recorded in the country;
38. Georgia is committed to identifying the climate-related flooding areas in the country within its Fifth National Communication and invites international partners for the development of protecting programmes for vulnerable communities who are prone to get an infectious water-borne disease;
39. Georgia encourages the development of programmes that will study climate change as a risk factor for chronic illnesses.
40. Georgia is committed to studying the impact of extreme heat, flooding, and hurricanes on medical delivery systems and healthcare in the country within its upcoming National Communications;

2.4 GEOGRAPHIC PROFILE

41. The updated NDC of Georgia highlights that country's mountainous territories especially the territory located 1,000 meters above sea-level frequently affected by the extreme weather events emphasizes fragility of the national mountains;
42. Georgia emphasizes the carbon sink capacity of national forests and its coverage level (approximately 40% of the whole territory) and aims to maintain its mitigation and adaptive capacities in the country.

2.5 CLIMATE PROFILE

43. Taking into account the information provided by the National Communications of the country, the updated Nationally Determined Contribution of Georgia underlines that since several decades the average temperature is characterized by an increasing trend in most regions of the country and threatens the changes both in climatic and agriculture zones.

3 DEVELOPMENT OF GEORGIA'S NATIONAL GREENHOUSE GAS INVENTORY SYSTEM

44. Georgia is fully committed to elaborate and operationalise the procedures and database for the archiving system of the domestic anthropogenic emissions by sources and removals by sinks of greenhouse gases by 2024;
45. Georgia is making an effort to develop country-specific emission factors and activity data, where available, in order to address the recommended methods (tier levels) for key categories in accordance with the IPCC 2006 guidelines;

46. Georgia recognizes the national circumstances, specifically the possibility of absence of relevant historic data necessary for higher tier methods, and intends to use the splicing techniques suggested by the IPCC guidelines under the national inventory reports of anthropogenic emissions by sources and removals by sinks of greenhouse gases, in order to ensure consistent time series and estimate missing emission values resulting from lack of activity data, emission factors or other parameters;
47. Georgia is fully committed to develop a QA as well as general and category-specific QC procedures for the estimation of domestic anthropogenic emissions by sources and removals by sinks of greenhouse gases by 2024;
48. Georgia is fully committed to adopting application procedures for verification techniques for the domestic anthropogenic emissions by sources and removals by sinks of greenhouse gases and operationalise them via the national inventory reports of anthropogenic emissions by sources and removals by sinks of greenhouse gases by 2024;
49. Georgia intends to report information on precursor gases such as carbon monoxide (CO), nitrogen oxides and non-methane volatile organic compounds (NMVOCs), as well as sulphur oxides consistent with the air pollution emission inventory of Georgia for the reporting year;

4 MITIGATION

50. Georgia has identified the level of its greenhouse gas target limits by assessing the feasible targets for mitigation in each sector. The following sector specific targets are to be adopted as goals of the Climate Action Plan (2021-2022) for the implementation of the Nationally Determined Contribution target:
51. Georgia intends to mitigate from the greenhouse gas emissions projected by the reference level³ by [15%] in the transport sector by 2030;
52. The updated Nationally Determined Contribution of Georgia supports the low carbon development of the building sector through encouraging the climate-goals oriented energy efficient technologies and services;
53. Georgia intends to mitigate from the greenhouse gas emissions projected by the reference scenario by [15%] in the energy generation and transmission sector by 2030;

³ Further information on reference levels for each sector can be found in the Climate Action Plan

54. The updated Nationally Determined Contribution of Georgia supports the low carbon development of the agriculture sector through encouraging the climate smart agriculture technologies and services;
55. The updated Nationally Determined Contribution of Georgia supports the low carbon development of the industry sector through encouraging the climate-friendly innovative technologies and services, in order to be achieved [5%] of emission limitations comparing to emissions projected by the without measures scenario;
56. The updated Nationally Determined Contribution of Georgia supports the low carbon development of the waste sector through encouraging the climate-friendly innovative technologies and services;
57. Georgia intends to increase the carbon capturing capacity through the forestry sector by [10%] for 2030 compared to 2015 level;
58. The updated Nationally Determined Contribution of Georgia sets Climate Action Plan implementation period between 2021 and 2030 for the determination of individual mitigation measures contributing to sectoral target achievement;

5 ADAPTATION

59. Georgia has identified the following adaptation measures to be adopted as part of the National Adaptation Plan for the implementation of the NDC target:
60. Georgia intends to assess the impact of climate change on the availability of groundwater and surface water resources for sustainable use in agricultural (irrigation), energy production and dwelling purposes in a long-term perspective;
61. Georgia intends to assess climate change impact on the mountain ecosystems for the sustainable management of glaciers and mountain ranges;
62. Georgia intends to encourage the conservation of endemic species through the projection of climate change impact on the appropriate ecosystems;
63. Georgia intends to study the most vulnerable areas of forest lands at the preselected territories;
64. Georgia intends to assess of the level of vulnerability of the agricultural production with major contributions to the national GDP (e.g. grape, hazelnut) and/or domestically unique products, such as Georgian honey, related to the changes of

climate parameters and spread of infections for the purpose of ensuring food security;

65. Georgia intends to develop adaptive capacity of the most vulnerable winter and coastal resorts;

66. Georgia intends to assess the effects of climate change on human health through the interdisciplinary study of the relationships between social, economic, biological, ecological and physical systems;

67. Georgia intends to facilitate the measures supporting the reduction of losses and damages caused by extreme weather events;

6 GENDER AND CLIMATE CHANGE IN GEORGIA

68. The updated Nationally Determined Contribution of Georgia recalls Article 11 of the Constitution of Georgia on the right to equality, Law of Georgia on Gender Equality and welcomes the Decision 21/CP.22 on Gender and Climate Change, and Enhanced Lima work programme on gender and its gender action plan;

69. The updated Nationally Determined Contribution of Georgia acknowledges the nationalisation of targets 5.1-5.6, 5.a, and 5.b of Sustainable Development Goal 5 on the achievement of gender equality and empowerment all women and girls;

70. Georgia considers, by taking into account that the majority of teachers at primary and secondary schools, 58%⁴ of lecturers at universities, and 65%⁵ of doctors are women, to enhance the role of women as agents of change through their participation in decision-making processes addressing healthcare issues induced by climate change and related to the activities on climate change education, capacity-building, knowledge-sharing programme aiming to change behaviour;

71. Georgia further considers to enhance the role of women as agents of change through their participation in decision-making processes related to energy efficiency measures in households;

72. The updated Nationally Determined Contribution of Georgia invites stakeholders and relevant domestic organisations to provide adaptation resources channelled towards women wherever their vulnerability level is high;

⁴ (National Statistics Office of Georgia, 2018)

⁵ (National Statistics Office of Georgia, 2018)

73. The updated Nationally Determined Contribution of Georgia intends to collect, manage, report and archive the information on gender-disaggregated relevant data in its national reports related to the greenhouse gas mitigation and climate change adaptation; also, gender analysis, capacity building and knowledge sharing within climate-related projects.

7 ANNEXES

7.1 BEST PRACTICES AND EXPERIENCE RELATED TO THE PREPARATION OF THE NATIONALLY DETERMINED CONTRIBUTION OF GEORGIA

Within its paragraph 12, the updated Nationally Determined Contribution of Georgia identifies the vulnerable groups in Georgia. For taking into consideration the particular interests, needs, capabilities, roles and responsibilities of the key stakeholders, especially the vulnerable groups the meetings with vulnerable groups and civic organizations working on climate change and gender issues have been conducted during the update period.

Georgia has established a governmental recommending body - the Climate Change Council, for implementing and tracking the updated Nationally Determined Contribution. This is an instrument for ensuring the national buy-in of the climate policy implementation and transparency in achievement of emission limitations goal set by this document.

7.2 ASSUMPTIONS AND METHODOLOGICAL APPROACHES, INCLUDING THOSE FOR ESTIMATING AND ACCOUNTING FOR ANTHROPOGENIC GREENHOUSE GAS EMISSIONS AND, AS APPROPRIATE, REMOVALS

Georgia is going to report a greenhouse gas inventory pursuant to the decision 18/CMA.1 and report on progress towards its Nationally Determined Contribution in accordance to 4/CMA.1 until 31 December 2024.

Georgia continues to use 2006 IPCC Guidelines for National Greenhouse Gas Inventories and 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, for estimating greenhouse gas emissions and removals.

The sectoral targets for mitigation stated in the updated Nationally Determined Contribution follows the assumptions and methodologies used by the forthcoming Climate Action Plan (2021-2022). The EX-Ante Carbon-balance Tool version 7 has been applied for mitigation targets setting in the Forest sector. The LEAP has been applied for estimation greenhouse gas (CO₂, CH₄, and N₂O) emission limitations in the all energy related sectors, including energy generation and transmission, building, transport, manufacturing industries;

7.3 THE CURRENT DYNAMICS OF GEORGIA'S POPULATION

In the year beginning 1 January of 2018 the population of Georgia was 3.7⁶ million, of which 2.2 million (58.3%) lived in urban areas and 1.5 million (41.7%) lived in rural areas (Shavishvili & Kavelashvili, 2018). In general, the population of Georgia has been declining between 1994 and 2017 by approximately 24.4%. The same downward trend has been recorded for the urban and rural population. Particularly, the urban population has decreased by 18%, while the decreasing trend for rural population was significantly higher approximately 31.7% for the same 23 years period. The migration is considered as one of the main causes for the depletion ¼ of Georgia's population. Additionally, the urbanization processes in the country keeps the people migration rate relatively high in villages of Georgia.

⁶ *The data does not cover the occupied territories of Georgia*