



Bulgaria's climate and environment policy according Bulgaria's flagship strategic documents & operational programmes

Bulgaria is projected to witness increases in temperatures, which is likely to exacerbate existing risks of temperature-related hazards such as heat waves, droughts, and fire.

The country remains highly vulnerable to climate variability and change with particular impacts in agriculture, food security, energy generation, forestry and human health.

State budget, EU funds and instruments as well as private investments will be mobilized to facilitate transition to circular and low-carbon economy.

Significant efforts will be made to improve energy efficiency and achieve decarbonisation.

Clean air, biodiversity and sustainable agriculture to gain considerable attention and support.

Climate and environment policy is among the comprehensive horizontal topics that play an increasingly important role in Bulgaria's strategic planning. Understandably, it is embedded in a number of strategic documents that are an integral part of country's mid and long-term development priorities and policies. They are in line with the overall policy objectives of the European Union (EU) to be a global leader in the fight against climate change. As a Member State of the EU Bulgaria's strategic plans and policy objectives are to follow and contribute to EU's ambitions for green transition.

Against this backdrop, climate change is expected to increase the frequency and magnitude to extreme weather events in Bulgaria, namely, extreme precipitation and temperature, storms, floods, wildfires, landslides, and drought.¹ Projected trends show that temperatures in the country will continue to increase. Under a high-emission scenario, monthly temperatures are expected to increase by 2.2°C in the 2050s, and 4.4°C by the 2090s.

Currently, Bulgaria is classified as having high risk of river flooding, urban flooding, and wildfires. It has a medium risk of experiencing earthquakes, water scarcity, and extreme heat, and low to very low risk of landslides, coastal flooding, and storms. Projected increases in temperatures are likely to exacerbate the existing risks of temperature

¹ Bulgaria Climate Risk Country Profile, World Bank 2021



related hazards such as heat waves, droughts, and fire. Projections estimate an increased risk of wildfire and a longer fire season as a result of higher temperature and variation in rainfall. Changes in temperature and precipitation could also affect soil fertility, further affecting food systems.

In this regards, Bulgaria remains highly vulnerable to climate variability and change, particularly for the country's water resources, agriculture, public health, energy, and forestry sectors. Heavy rains, flooding, and soil erosion puts both urban and rural infrastructure at risk. Increased risk and vulnerability to soil droughts are expected to increase in the occurrence, intensity, and level of impact of the soil droughts in Bulgaria through the end of the century. Furthermore, increased occurrences of aridity and drought conditions will impact agriculture, food security, energy generation and human health.

1. National Development Programme Bulgaria 2030

Firstly and foremost, it is the **National Development Programme Bulgaria 2030** that as an overarching document includes the topic of climate and environment. It is addressed by its second area/axis '**Green and Sustainable Bulgaria**' that is closely linked to Sustainable Development Goals 2, 3, 7, 8, 11, 12, 13, 14 and 15.

Within this axis, the Government defines the three main priorities (Circular and low-carbon economy; Clean air and biodiversity and Sustainable agriculture) with nine specific sub-priorities (Table 1, 2, 3).

The 'Circular and low-carbon economy' priority is estimated at EUR 15 bln, which are to be provided by the state budget and European funds and instruments (Table 1). It foresees that efforts will be made in order to facilitate a simultaneous transition towards a circular economy and a low-carbon economy. The main goal of the first sub-priority is to reduce the resource intensity of country's economy and increase the efficiency of the materials used.

The **National Development Programme Bulgaria 2030** (NDPB 2030) is a strategic framework document of the highest order in the hierarchy of national programming documents, determines the vision and general goals of the development policies in all sectors of general government, including their territorial dimensions. In its preparation a special attention is paid to binding its indicators to the 17 Global Sustainable Development Goals of United Nations.

In essence, NDPB 2020 sets out three strategic goals (accelerated economic development, demographic upswing, reduction of inequalities) for the implementation of which it groups the government intentions into five development areas (axes) of development and sets 13 national priorities.

Indicators to be addressed include rate of circular material use, generation of waste, rate of recycling, share of disposed waste submitted for treatment.

The second sub-priority will focus on measures aimed at improving energy efficiency in enterprises and households and encouraging growth of the share of from renewable energy sources (RES). Main deliverables are linked to an overall reducing of greenhouse gas emissions (GHG) and of share of coal in gross electricity production.

Table 1. Circular and low-carbon economy

Sub-priority	Area of impact	Assessment of the financial resources required*	Sources of financing
Transition to a circular economy	Material efficiency	775 813 027	State budget; European funds and instruments
	Waste management	1 083 981 116	State budget; European funds and instruments
	Eco-innovations	145 454 584	State budget; European funds and instruments
Transition to a low-carbon economy	Energy efficiency	4 892 831 869	State budget; European funds and instruments; Private investments
	Low-carbon technologies	4 630 000 000	State budget; European funds and instruments; Private investments
	Decarbonisation of regions	4 830 200 000	State budget; European funds and instruments
	Gas network	3 343 000 000	State budget; European funds and instruments
	Electricity infrastructure and energy security	10 327 000 000	State budget; European funds and instruments

Source: National Development Programme Bulgaria 2030

*Amounts are in BGN, 1 EUR =1.95583 BGN, fixed exchange rate

The EUR 2 bln worth 'Clean air and biodiversity' priority envisages achievement of international air quality standards and reducing emissions of harmful substances as well addresses the elimination of biodiversity within and outside the National Ecological Network of Protected Areas and Natura 2000 Protected Areas (Table 2). Funding is to come not only from the state budget and European funds and instruments but also from the National Trust Eco Fund and enterprise management activities for environmental protection.

Table 2. Clean air and biodiversity

Sub-priority	Area of impact	Assessment of the financial resources required*	Sources of financing
Ambient air quality	Particulate matter	1 680 000 000	State budget; European funds and instruments; National Trust Eco Fund
	Pollutant emissions	na	na
Ecosystems and biodiversity	National ecological network	2 140 000 000	State budget; European funds and instruments; Enterprise management activities for environmental protection
	Biodiversity outside Natura 2000	150 000 000	State budget; European funds and instruments; Enterprise management activities for environmental protection

Source: National Development Programme Bulgaria 2030

*Amounts are in BGN, 1 EUR =1.95583 BGN, fixed exchange rate

The 'Sustainable agriculture' is the biggest out of the three climate and environment-related priorities both in scope and as a budget estimated at EUR 11 bln (Table 3). Its first two sub-priorities 'Structural and sectoral balance of agriculture' and 'Farmers' incomes' take up more than 70% of the total amount. Funding for the former is expected to be made available by the state budget and EU's funds and instruments, while for the latter also by operators in the agricultural sector.

The third sub-priority 'Competitiveness of the agricultural sector' is expected to make EUR 0.7 bln available in order to improve total factor and labour productivity in the field of agriculture by channelling support for modernisation, innovation and digital technologies in agricultural holdings as well as for measures to boost qualification and knowledge of farmers.

Close to EUR 2 bln are foreseen until 2030 for implementation of environmentally friendly practices in agricultural production under the 'Role of the agricultural sector in environmental protection' sub-priority. It measures emphasize on agri-environmental commitments, irrigation farming and organic production.

Table 3. Sustainable agriculture

Sub-priority	Area of impact	Assessment of the financial resources required*	Sources of financing
Structural and sectoral balance of agriculture	Plant production	1 500 000 000	State budget; European funds and instruments
	Livestock farming	2 500 000 000	State budget; European funds and instruments
	Economic potential of small agricultural farms	1 200 000 000	State budget; European funds and instruments
	Age structure of farmers	428 000 000	State budget; European funds and instruments
	Areas with natural or other constraints	400 000 000	State budget; European funds and instruments
Farmers' incomes	Direct support mechanisms	9 800 000 000	European funds and instruments
	Agricultural risk management	635 000 000	State budget; European funds and instruments; Operators in the sector
Competitiveness of the agricultural sector	Modernisation, innovation and digital technologies in agricultural holdings	1 240 000 000	State budget; European funds and instruments
	Market position of farmers	260 000 000	State budget; European funds and instruments
	Qualification and knowledge of farmers	30 000 000	State budget; European funds and instruments
Role of the agricultural sector in environmental protection	Agri-environmental commitments	2 600 000 000	State budget; European funds and instruments
	Organic production	170 000 000	European funds and instruments
	Irrigation farming	1 080 000 000	State budget; European funds and instruments
	Forest resource management	35 000 000	State budget; European funds and instruments
Fisheries and aquaculture management	Fisheries and aquatic biological resources	42 000 000	State budget; European funds and instruments
	Competitiveness of the fisheries and aquaculture sector	77 000 000	State budget; European funds and instruments
	Blue economy and fishing communities	52 000 000	State budget; European funds and instruments

Source: National Development Programme Bulgaria 2030

*Amounts are in BGN, 1 EUR =1.95583 BGN, fixed exchange rate

2. Bulgaria's Partnership Agreement and Operational Programmes (2021-2027)

The **Partnership Agreement (PA)** provides the framework of implementation in the country of the Multiannual Financial Framework 2021-2027, e.g. the budget of the EU. Once the European Commission adopts the Partnership agreement prepared by the Bulgarian government, this will pave the way for the EU's operational programmes to be implemented in Bulgaria, which in money terms means implementation of projects worth EUR 16.6bln in total.

For the programming period 2021-27 each Member State of the European Union has to produce a **Partnership Agreement (PA)** in cooperation with the European Commission. This is a strategic reference document for deploying EU funds for a country's economic, social and territorial cohesion. It defines the strategy and investment priorities chosen by the relevant Member State and presents a list of national and regional operational programmes (OPs), which it is seeking to implement, as well as an indicative annual financial allocation for each.

The third, yet not final, version of the Bulgarian Partnership Agreement, released in December 2021, offers a description of the factual situation related to a wide number of challenges that are to be addressed by the OPs. Worth-mentioning is the starting basis of Bulgaria as the most energy-intensive economy in the European Union, spending 3.6 times more energy resources per unit of GDP than the average energy consumption in the EU. In this regards, the interventions to be supported by the OPs are expected to contribute to:

- increasing the share of enterprises with introduced low-carbon, energy and resource efficient technologies;
- achievement of the overall cumulative target for energy savings for the period 2021-2030 and the intermediate target for 2027 562.5 ktoe (according to Bulgaria's Integrated National Climate and Energy Plan or INECP).

Within the policy targets that are part of the implementation of EU's Just Transition mechanism (a key tool on EU level to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind) the PA states that the country is:

- highly dependent on solid fuels and greenhouse gas-intensive industrial activities, which comes to show the need to phase them out or adapt them to the transition to climate neutrality;
- the Member State with the highest resource intensity, spending 6.8 times more raw materials per unit of GDP than the average raw material consumption in the EU;

- the Member State with the highest carbon intensity, 4.3 times higher greenhouse gas emissions than the EU average (as of 2016):
 - carbon intensity of ‘Supply of electricity, gas, steam and air conditioning’ sector is 3.3 times above the EU27 average;
 - carbon intensity of the manufacturing industry (sector B) is 2.6 times above the EU average.

Against this backdrop, all OPs, still in a process of preparation and/or a subject of exchange between the government and the European Commission, will have to address the above-mentioned challenges in one way or another. Crucial role in that respect will be played by the Operational Programme ‘Environment 2021-2027’, which will be in implementing a wide range of climate and environment-related measures reaching from biodiversity over water management to air quality. This OP is committed to adhering to the ‘do not significantly harm’ principle that is embedded in the regulation establishing the Recovery and Resilience Facility (RRF) and the corresponding National Recovery and Resilience Plan (RRP). In financial terms, the Operational Programme ‘Environment 2021-2027’ will disburse a total budget of EUR 1.8 bln, of which EUR 1.5 bln will be provided by the European Regional Development Fund and the Cohesion Fund and EUR 0.3 bln will come in a form of national co-financing.

3. Bulgaria’s Integrated National Energy and Climate Plan (INECP)

In order to ensure a co-ordinated and concerted approach across the Union and implementation of the European Union Energy Strategy, each Member State (MS) was required to submit to the European Commission its draft Integrated National Energy and Climate Plan (INECP) by 31 December 2018 and its final Integrated Plan by 31 December 2019.

Since then some of EU climate and energy ambitions has increased – for instance, the one aiming at reducing greenhouse gas emissions by at least 40% compared with 1990 has evolved to legally binding target of at least 55%. Nevertheless, INECPs remain a major stepping-stone for all follow-up strategies, commitments, plans and programmes on a country level. They will be updated with the new policy targets in 2023 when each country will submit a progress report.

By taking into consideration the above-mentioned situation, Bulgaria’s Integrated National Energy and Climate Plan 2021-2023 sets out a number of strategic goals and priorities in the area of energy and climate until 2030 (Table 4).

Table 4. Review of 2030 targets

Key objectives, policies and measures

Field	Description	Target
Renewable energy sources	National target for the share of renewable energy in gross final energy consumption by 2030	27.09 %
	Share of electricity from renewable sources in gross final consumption of electricity	30.33 %
	Share of heating and cooling from renewable sources in gross final consumption of heating and cooling	42.60 %
	Share of renewable energy in gross final energy consumption in transport	14.20 %
Energy efficiency	Lowering primary energy consumption as compared with the PRIMES 2007 baseline projection	27.89 %
	Lowering final energy consumption as compared with the PRIMES 2007 baseline projection	31.67 %
	Primary energy consumption	17 466 ktoe
	Final energy consumption	10 318 ktoe
Greenhouse gas emissions	National objective for reducing GHG emissions by 2030 as compared with 2005 for non-ETS sectors (building stock, agriculture, waste management and transport)	0%
	National target for the Land use, land use change and forestry sector in accordance with Regulation (EU) 2018/841 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework.	Ensure that for the periods 2021—2025 and 2026—2030 GHG emissions do not exceed removals, calculated as the sum of total emissions and total removals on its territory in all land accounting categories (no-debit commitment).



List of abbreviations

EC – European Commission

EU – European Union

GDP – Gross domestic product

GHG – Greenhouse gas emissions

GOs – Guarantees of origin

INECP – Integrated National Climate and Energy Plan

NDPB 2030 – National Development Programme Bulgaria 2030

MS – Member State

OPs – Operational programmes

PA – Partnership Agreement

RES – Renewable energy sources

RFF – Recovery and Resilience Facility

RRP – Recovery and Resilience Plan

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Because of its limitations, the current factsheet provides an overall mapping and by no means an exhaustive overview of the contents of the available flagship strategic documents.

