



The Republic of Poland

GREEN BOND REPORT 2025

JULY 2026

Ministry of Finance
Republic of Poland

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Introduction

The Republic of Poland (“Poland”) was the first sovereign globally to issue green bonds – debuting in December 2016 – to finance environmentally beneficial public projects. Strong investor demand supported continued engagement with the market, leading to additional euro-denominated issues in early 2018 and February 2019.

Building on its established track record, Poland returned to the green bond market with a EUR 1.25 billion green bond issuance on 7 July 2025, following the publication of its updated Green Bond Framework in June 2025. The proceeds from the issuance support the implementation of Poland’s climate and environmental strategy and contribute to its pathway towards climate neutrality.

The Republic of Poland Green Bond Report 2025 provides an overview of the use of proceeds and the associated environmental benefits of the issued green bond. It details the allocation of net proceeds across eligible categories in line with the 2025 Green Bond Framework and confirms that the funds support defined environmental objectives. The report also presents key environmental metrics used to assess the impacts of the financed projects, ensuring transparency, accountability, and alignment with recognized green finance market standards.



Poland Environmental Objectives

Green bonds have emerged as a key instrument for financing the transition towards a more sustainable and climate-resilient economy. In Poland, their growing significance reflects both national policy priorities and broader EU objectives related to Environmental, Social, and Governance (ESG) standards (Tables 1-2 and Chart 1).

Several domestic strategic documents shape Poland's sustainability and climate policy framework. The 2030 National Environmental Policy (Polityka Ekologiczna Państwa 2030) sets out the development strategy for environmental protection and water management through 2030 and provides the basis for public actions and investments supporting sustainable development. The Energy Policy of Poland until 2040 (Polityka Energetyczna Polski do 2040; PEP2040) defines the country's long-term energy transition pathway, while the updated National Energy and Climate Plan (Krajowy Plan w dziedzinie Energii i Klimatu; NECP) plays a central role in addressing energy and air quality challenges.

Together, these strategic documents underpin Poland's continued efforts to align its financial and regulatory frameworks with EU climate objectives and law.

2.1

ESG Metrics

The following outlook is intended to provide investors with an overview of Poland’s key ESG metrics. Poland is accelerating its transition toward a more sustainable and climate-resilient economy by reducing reliance on coal, expanding renewable energy sources such as solar and wind, and promoting energy efficiency and clean transportation. The country is also focused on achieving climate neutrality by 2050 through investments such as public transport electrification or low-emission infrastructure development. In parallel, Poland prioritizes the protection of natural ecosystems, forests, and biodiversity while supporting sustainable agriculture. A strong emphasis is also placed on ensuring a just transition by supporting coal-dependent regions, safeguarding employment, and facilitating workforce retraining through EU-backed initiatives. The following indicators are based on publicly available data from reliable and regularly updated sources, enabling investors to assess Poland’s performance in comparison with the European average.

SDG indicators		Progress	
SDG index global ranking	Score: 81.11; Rank: 12th (2020)	→	Score: 82.08; Rank: 9th (2025)
Greenhouse gas emissions (2010=100)	91.5 (2020)	→	84.2 (2024)
Reduction of total domestic GHG emission (compared to 1988)	-32.1% (2019)	→	-34.3% (2022)
Primary energy intensity of GDP	0.21 (2020)	→	0.17 (2023)
Share of renewable energy in gross final energy consumption	15.3% (2019)	→	17.7% (2024)
CO ₂ emissions from fuel combustion per total electricity output	1.93 MtCO ₂ /TWh (2020)	→	1.76 MtCO ₂ /TWh (2023)
Protected area coverage of important sites for biodiversity in terrestrial sites	88.6% (2020)	→	88.7% (2023)
Protected area coverage of important sites for biodiversity in freshwater	91.68% (2020)	→	91.7% (2023)
Population connected to wastewater treatment plants	74.9% (2020)	→	75.9% (2025)
Employment as % of population	68.0% (2020)	→	72.5% (2025)
Poverty headcount ratio (at \$3.65/day)	0.78% (2020)	→	0.66% (2025)

Table 1. SDG indicators and progress for Poland / Source: Polish National reporting Platform SDGs, Statistics Poland

Institution	Index	Rank	Year
Global Peace Index	1.71	36/163	2025
WJP Rule of Law Index	0.66	33/143	2025
Human Development Index	0.906	35/193	2023
Freedom House Index	82/100		2026

Table 2. Selected Social and Governance indicators for Poland.

Source: Data compiled from the Institute for Economics & Peace (Global Peace Index 2025), World Justice Project (Rule of Law Index 2025), UNDP (Human Development Index 2023), and Freedom House (Freedom in the World 2026).

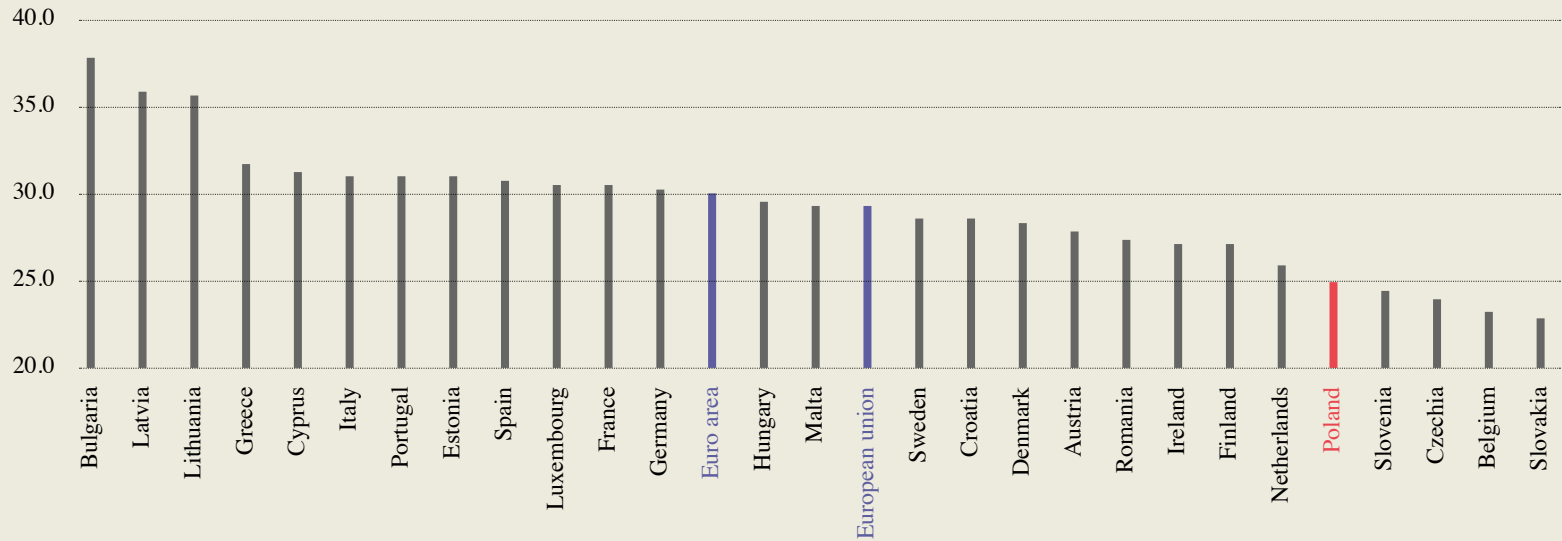


Chart 1. Poland's Gini Coefficient / Source: Eurostat May 2026

2.2

Greenhouse Gas Emissions – Trends

Greenhouse gas (GHG) emissions are a central pillar of Poland’s ESG commitments and play a critical role in shaping the country’s environmental and economic policies. As one of the larger GHG emitters in the EU – largely reflecting historical reliance on coal for energy production – Poland faces the dual challenge of reducing emissions while safeguarding energy security and economic stability.

As early as 2005, upon becoming a signatory to the Kyoto Protocol, Poland committed to reducing GHG emissions by 6% over the 2008–2023 period, using 1988¹ as the baseline. This target was not only met but significantly exceeded, with domestic GHG emissions estimated to be approximately 30% lower than in the baseline level. Building on this progress, Poland has remained actively engaged in the development and implementation of international and EU climate policies.

¹ In 1990, Poland experienced a transitional economic collapse, meaning that greenhouse gas emission levels for that year did not reflect normal economic activity or the country’s underlying development needs and potential. As a result, 1990 was not considered a representative baseline for the Polish economy. This was recognized during the Kyoto Protocol negotiations, leading to the adoption of 1988 as the reference year for measuring emission reductions.

Table 3 presents GHG emissions, expressed in CO₂ equivalent, for the years 1988 and 2024, together with changes across the main source categories. Emissions declined across all categories compared to 1988. The largest reductions were recorded in the following categories: Waste, Agriculture, and Energy (by 78.2%, 31.8%, and 41.2%, respectively).

Category	1988 (kt CO ₂ eq)	2024 (kt CO ₂ eq)	Change (1988-2024)[%]
TOTAL* (including category 4)	537 238.98	303 488.87	-43.51
TOTAL* (excluding category 4)	579 871.51	341 216.09	-41.16
Energy	478 931.75	281 552.43	-41.21
Industrial processes and product use	29 865.86	20 567.79	-31.13
Agriculture	50 282.27	34 286.86	-31.81
Land use; land-use change and forestry	-42 632.53	-37 727.22	-11.51
Waste	20 168.72	4 398.15	-78.19
Indirect CO ₂ emissions	622.92	410.87	-34.04

Table 3: National greenhouse gas emissions by category in 1988 and 2024

Source: National Inventory Report 2026; The National Centre for Emissions Management (KOBiZE), Ministry of Climate and Environment.

Chart 2 further illustrates the trajectory of GHG emissions reduction by sector. In the Energy sector, the decline in emissions is primarily attributable to the transformation of heavy industry, as well as reduced coal consumption and extraction, alongside improvements to energy efficiency.

In Agriculture, the significant reduction in emissions reflects structural and economic changes after 1989, including a decline in both livestock and crop production. The reduction from Waste Disposal is mainly linked to lower methane emissions from waste storage.

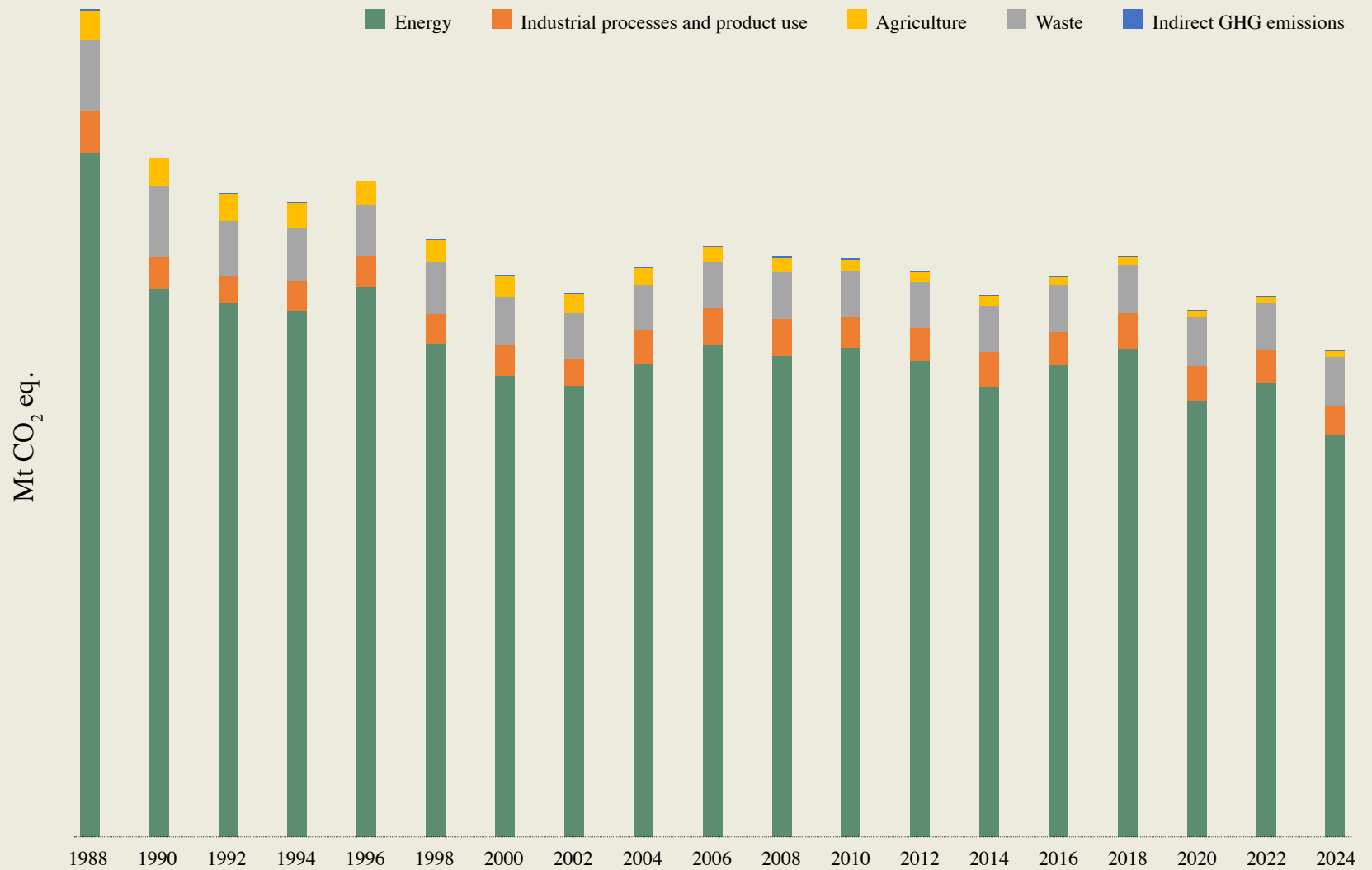


Chart 2: Aggregated greenhouse gas emissions (excluding category 4) in 1988–2024 by source categories.

Source: National Inventory Report 2026; KOBiZE, Ministry of Climate and Environment.

2.3

Environmental Objectives

Poland's environmental and climate objectives stem from the strategies and policies described in documents mentioned earlier in this chapter, but the central role is played by the NECP, which is embedded within the broader EU policy framework. Established following the adoption of the Clean Energy for All Europeans package, the Energy Union is built around five pillars: decarbonization; energy efficiency; energy security; the internal energy market; research, innovation, and competitiveness.

The NECP covers energy use, GHG emissions across key sectors and related macroeconomic impacts. Energy and emissions projects are prepared using internationally standardized methodologies, with GHG data aligned with IPCC methodology.

Environmentally Sustainable Management of Living Natural Resources and Land Use

In Poland, the largest absorber of CO₂ emissions is forest land, alongside cropland, grassland, wetlands, and harvested wood products. Measures such as rewetting peatlands, afforestation, or transforming forests toward more diverse and resilient tree stands may produce the desired effects only over the longer term, while stopping peatland degradation delivers an immediate and highly beneficial climate impact. The impact of biotic and abiotic factors that damage wetlands and forests almost immediately reduces their capacity to store and absorb CO₂ from the atmosphere.

By 2050, Poland plans to increase the country's forest cover to 33% (from 29.6% in 2024). Forest management will support natural processes that enhance biodiversity in forests. It is planned to permanently reduce commercial forestry activities to strengthen the environmental and social functions of Polish forests managed by the State Forests. An increase in forest water resources is also anticipated.

In addition to forest land, actions undertaken in agriculture will also contribute to increasing carbon stocks in soil and limiting their release into the atmosphere. However, it should be emphasized that achieving carbon removal targets in the agricultural sector must take food security into account. Measures aimed at increasing carbon sequestration in agriculture are being implemented under the Common Agricultural Policy Strategic Plan 2023–2027.

The EU target for 2030 regarding net greenhouse gas removals is 310 MtCO₂e. This represents the combined value of net greenhouse gas emissions and removals across EU Member States in 2030. Separate targets have been established for each Member State based on historical data. Poland's target for 2030 has been set at 38.1 MtCO₂e.

Clean Transportation

The implementation of effective decarbonization measures is a key priority for Poland. Electricity from renewable energy sources used in transport, advanced second generation biofuels (such as liquefied and compressed biomethane), renewable fuels of non-biological origin, and fuels derived from recycling are expected to play an important role in achieving Poland's climate objectives.

Emissions reductions are being pursued through lower overall energy consumption in transport, stricter vehicle emission standards, and the progressive replacement of conventional fuels with zero-emissions or renewable alternatives. In the near term, biofuels and biocomponents are expected to contribute significantly to transport decarbonization.

Over the medium to long term, electromobility is expected to assume a leading role in transport decarbonization. The low-emission transformation of urban transport is a particular priority, supported by measures to reduce transport intensity and improve the organization of passenger and freight transport. In addition, clean transport zones will be introduced in cities with more than 100,000 inhabitants where annual average nitrogen dioxide concentration limits are exceeded, contributing to targeted emissions reductions in urban areas. The development of electromobility will also be underpinned by the deployment of a dense, publicly accessible charging infrastructure network.

Green Buildings

Improving the energy efficiency of buildings brings several benefits. It reduces energy consumption, the use of fuels and enhances energy security. This leads to the reduction of energy-related costs in buildings and the improvement in quality of life. Building renovations contribute to achieving climate goals through the reduction of GHG emissions and other pollutants from buildings.

In 2022, Poland developed the Long-Term Building Renovation Strategy, which outlines the necessary measures to achieve high energy efficiency and low-emission buildings in Poland by 2050. The Strategy aims at comprehensive thermomodernization by 2030. The scenario adopted was intended to enable the modernization of the least energy-efficient buildings (with energy consumption above 330 kWh/m²/year) by 2027.

The phase-out of fossil fuels from households and thermomodernization are among the main priorities of Poland's policy. By the end of 2026, a National Building Renovation Plan (which will replace the 2022 Long-Term Building Renovation Strategy) will be developed in accordance with the Energy Performance of Buildings Directive (EPBD).

Funding for thermomodernization is provided through priority programmes and tax incentives (in the form of tax relief). Individual programmes are dedicated separately to single-family buildings (e.g. Clean Air Programme), multi-family buildings (e.g. the TERMO Programme), and public buildings (e.g. School Modernization Programme).

Sustainable Water and Wastewater Management

Water pollution is a complex problem resulting from various human activities such as industry, agriculture, and municipal management. To improve water quality, it is necessary to focus on the identification, monitoring, and implementation of measures aimed at reducing and preventing water pollution and increasing the resilience of water management systems to the impacts of climate change. These actions are essential to protect the natural environment and ensure access to safe water resources for present and future generations.

River Basin Management Plans constitute the basis for decision-making related to the condition of water resources and define the principles of water management. Of particular importance for improving water quality in Poland is the implementation of measures arising from the second update of the River Basin Management Plans.

A second component of the water protection is investment in wastewater management, including the construction, expansion, and modernization of wastewater treatment plants, as well as the development of sewage systems, based on the National Programme for Municipal Wastewater Treatment (NPMWWT) and its subsequent updates.



New Green Bond Framework

In June 2025 the Republic of Poland adopted a new Green Bond Framework to reflect evolving market standards and updates to the country's broad sustainability strategy. The updated Framework aligns with ICMA Green Bond Principles 2021 (and Appendix I of June 2022). Additionally, eligibility criteria are informed by the Climate Delegated Act of the EU Taxonomy (where relevant).

The Framework received a positive Second Party Opinion from Sustainalytics. In addition, Poland provides transparency on the oversight of Eligible Green Expenditures through established public audit processes. Further, the Framework defines core components of the green bond programme, including the Use of Proceeds, Project Evaluation and Selection, Management of Proceeds and Reporting.

The updated Framework marks a significant step in Poland's continued use of green finance to support its transition towards a more sustainable economy. It has been revised to align with the ICMA Green Bond Principles (2021), replacing the earlier 2016 standard applied to pre-2025 issuances. The refinements include an expansion of eligible Use of Proceeds categories from six to seven, together with enhanced safeguards to avoid double counting across allocations. The Framework also introduces more granular exclusion criteria, including explicit restrictions at the Use of Proceeds level, strengthening overall transparency and robustness.

Governance has been further formalized through the establishment of an inter-ministerial working group, led by the Ministry of Finance, responsible for coordinating Project Evaluation and Selection. This group will meet annually to review Eligible Green Expenditures and oversee internal processes. Proceeds not yet allocated to eligible projects will be managed in line with State Treasury practices, with a clear commitment not to invest such funds in activities falling under the exclusion criteria. Reporting has also been enhanced, with the introduction of annual impact reporting in line with recognized market standards and best practices.



Allocation reporting

This section outlines how the net proceeds from Green Bond Instruments have been distributed across Eligible Green Expenditures.

The proceeds of the June 2025 green bond issuance were used to refinance existing Eligible Green Expenditures. To the date of this report publication, EUR 1.00bn has been allocated to the Eligible Green Expenditures specified in the Green Bond Framework representing approximately 80% of total proceeds (Table 4). The remaining EUR 0.2bn will be allocated to finance or refinance eligible projects within the 36-month period as specified in the Green Bond Framework.










Eligible Category	UN SDGs	Contribution to EU Environmental Objective	Total (EUR)
Clean Transportation	 	Climate Change Mitigation Pollution Prevention and Control	285 553 598,43
Environmentally Sustainable Management of Living Natural Resources and Land Use	 	Protection and Restoration of Biodiversity and Ecosystems	557 249 926,97
Green Buildings	  	Climate Change Mitigation	155 745 222,56
Sustainable Water and Wastewater Management	 	Sustainable Use and Protection of Water and Marine Resources	4 934 961,06
Total proceeds			1 003 483 709,02
Total Green Bonds Funds			1 248 125 000,00
Remaining proceeds			244 641 290,98

Table 4. Allocation by Eligible Categories. Allocation (in EUR calculated with exchange rate from 16.01.2025 (EUR/PLN) = (4.2634))

Total amount of Eligible Green Expenditures: **EUR 1.003.483.709,02**

- Clean Transportation: **28%**
- Environmentally Sustainable Management of Living Natural Resources and Land Use: **56%**
- Green Buildings: **16%**
- Sustainable Water and Wastewater Management: **0.49%**

Number of Eligible Green Expenditures: **54**

New Eligible Green Expenditures added since December 2024: **21**

New Eligible Green Expenditures added since December 2022: **33**

Beneficiary*	Amount
The Agency for Restructuring and Modernization of Agriculture (ARiMR)	551 913 293,15
PKP Polskie Linie Kolejowe S.A. (PKP PLK)	187 430 189,41
The Thermomodernization and Renovation Fund	155 745 222,56
The National Fund for Environmental Protection and Water Management (NFOŚiGW)	59 425 169,70
Gdynia Seaport Authority S.A.	42 279 493,49
Szczecin and Świnoujście Seaports Authority S.A.	3 478 075,71
The State Forests – National Forest Holding (PGL Lasy Państwowe)	3 212 265,00
Total	1 003 483 709,02

*Table 5. Allocation by beneficiary. * Detailed list and description of fund beneficiaries can be found in Annex 1*



5 Impact Reporting

This chapter presents the impact analysis of the Eligible Green Projects funded by the 2025 Green Bond issuance. The assessment focused mainly on measuring the project's contribution to addressing climate change and its associated environmental impacts. It should be noted that the assessment was conducted based on the data available at the time and certain values were estimated using appropriate assumptions and methodologies. The assessment was kept as simple as possible while still ensuring reliable results and making use of the available data. The chapter also provides details on the projects for each Eligible Green Expenditure and related steps.

5.1

Environmentally Sustainable Management of Living Natural Resources and Land Use

Selected Indicator	Unit	Measure
Afforestation and forestry conservation		
Afforestation of State Treasury lands	ha	1980,77
Biodiversity conservation, preservation and protection		
Area of protection of valuable habitats and threatened species in Natura 2000 areas	ha	173 627,85
Area of protection of valuable habitats and threatened species outside Natura 2000 areas	ha	204 792,54
Conservation of threatened genetic resources – plant area and number of animals	ha	5 206,75
	No.	30 804,45
Area of conservation of traditional orchard varieties	ha	373,91
Sustainable agricultural practices		
Area supported for organic farming	ha	465 253,27

Table 6: Selected impact reporting indicators for Environmentally Sustainable Management of Living Natural Resources and Land Use

The largest share of green bond proceeds was allocated to the category Environmentally Sustainable Management of Living Natural Resources and Land Use. Given Poland’s extensive forest coverage and significant agricultural sector, the protection of biodiversity and natural habitats, sustainable forest management, and the reduction of GHG emissions from agricultural activities are central to the country’s green transition.

Afforestation and forestry conservation

A substantial portion of proceeds was allocated as national contribution of expenditure through the Rural Development Programme 2014–2020 (PROW 2014–2020), implemented under the EU’s rural development policy and Poland’s national agricultural policy. The programme aimed to strengthen the economic potential of rural areas, improve quality of life in rural communities, and support the development of sustainable agriculture.

Green bond proceeds supported investments under PROW 2014–2020 Measure M.8 (Investments in the development of forest areas and improving forest vitality), which focuses on enhancing forest growth, resilience, and ecological and productive functions.

Biodiversity conservation, preservation and protection

Eligible expenditures also supported biodiversity conservation and environmental protection initiatives implemented across Poland, including active species and habitat conservation, particularly within Natura 2000 sites and national parks.

Additional measures comprised active habitat management in nature reserves, protection of genetic resources in agriculture, maintenance of traditional orchards, and agri environment climate schemes implemented under both the Common Agricultural Policy (CAP) 2023–2027 and the Rural Development Programme (PROW 2014–2020 Measure M.10).

Sustainable agricultural practices

Sustainable agricultural practices supported under this category are aligned with national and EU regulations and focus on protecting soil and water resources. Measures include preventing soil degradation, improving water retention, and enhancing water use efficiency in agricultural systems. Crop management practices promote crop rotation, cover crops, and diversification to enhance biodiversity and increase resilience to climate change.

5.2

Clean Transportation

Selected Indicator	Unit	Measure
Lower carbon water transport		
Ships connected to Onshore Power Supply (ONS)	No.	58
Length of modernized/reconstructed quays	m	536
Total length of crane rails	m	1098
New Shore Power Points	No.	11
Infrastructure for zero-emission road and rail transport		
Zero-emission infrastructure build/modified	km	724,44
Zero-emission vehicles (ZEVs)		
New zero-emission public buses	No.	86
New charging stations	No.	62
->Total planned CO ₂ reduction*	MG/year	5747

Table 7: Selected impact reporting indicators for Clean Transportation

* For detailed methodology see Appendix 1. Zielony Transport Publiczny by The National Fund for Environmental Protection and Water Management NFOŚiGW

Clean Transportation represents the second largest share of Eligible Green Expenditures. Poland remains committed to reducing GHG emissions from transport, with expenditures focused on lowering emissions from water transport, developing zero-emission road and rail infrastructure, and supporting zero-emission vehicles.

Infrastructure enabling low carbon water transport

At the seaports of Szczecin and Świnoujście, investments focused on the expansion and modernization of shore-to-ship power supply infrastructure. The projects included the installation of 15 kV medium voltage cable networks between GPZ Świnoujście and GSZ TPŚ, a ShoreBox transformer station with frequency converter, five quay transformer stations, and 11 kV shore power points with electrical and fibre optic cabling. A visualization system and a mobile cable management solution (ShoreCONNECT) enable efficient vessel power supply management. This infrastructure allows ships to draw electricity from shore while docked, significantly reducing emissions.

At the Port of Gdynia, multiple projects combined infrastructure upgrades with renewable energy solutions, enabling port operations with zero direct CO₂ emissions. Quay reconstruction works, including the Indyjskie Quay and terminal facilities for intermodal cargo handling, improved transport efficiency. Additional investments under the deepening of approach channels and internal basins enabled the installation of electric gantry cranes along the Helskie Quays, further supporting intermodal transport.

The port also developed shore-to-ship power infrastructure through the construction of OPS/SSE power points, preparation of converter station designs, and deployment of ship connection systems. This infrastructure enables vessels to operate with zero direct CO₂ emissions and supports both electric charging and hydrogen refueling.

Infrastructure for zero-emission road and rail transport

PKP Polskie Linie Kolejowe S.A. (PKP PLK) implemented a range of projects supporting railway interoperability, operational efficiency, and environmental performance. Investments covered trackside infrastructure, energy systems, control command and signalling systems, and digital tools in line with EU railway interoperability requirements.

The projects supported electrified infrastructure and prepared selected non electrified lines for future electrification or operation by zero-emission trains. Where relevant, infrastructure was designed to enable the use of zero CO₂ emission rolling stock within ten years of project commencement. Measures also covered intermodal transport infrastructure, including terminal facilities enabling efficient loading, unloading, and passenger transfers. In total, 6.29 km of infrastructure was developed to support intermodal transport operations.

Digital solutions formed an important component of the programme, enabling centralized management of approximately 17,500 power connection points and monitoring of around 800 energy and lighting cabinets, improving energy efficiency and operational control. Additional upgrades included the installation of railway line block systems along 30.0 km of railway lines, increasing network capacity and safety.

To reduce environmental impacts, PKP PLK also implemented measures to mitigate noise and vibration generated by electrified rail infrastructure. These included the installation of acoustic screens, rail absorbers, and diffractors along 27.14 km of railway lines.

Zero-emission vehicles (ZEVs)

The National Fund for Environmental Protection and Water Management (NFOŚiGW) implemented a series of projects aimed at expanding zero-emission public transport through the acquisition of zero-emission bus fleets and the deployment of supporting charging infrastructure in Polish cities. These projects contribute directly to reducing CO₂ emissions and support the transition towards zero-emission urban mobility.

In Włocławek, the project covered the purchase of 11 zero-emission buses and the installation of six charging points, resulting in an estimated CO₂ reduction of 445 tonnes per year.

In Kraków, the expansion of the municipal zero-emission fleet comprised 20 zero-emissions buses and 20 charging points, achieving an estimated CO₂ reduction of 1,560 tonnes per year.

5.3

In Grudziądz, the purchase of 17 zero-emission buses, together with supporting infrastructure including 22 charging points, resulted in an estimated CO₂ reduction of 567 tonnes per year.

For the Municipal Transport Company in Poznań (MPK Poznań), the project involved the acquisition of 25 hydrogen powered zero-emission buses, with an estimated CO₂ reduction of 2,025 tonnes per year. The Municipal Transport Company in Wrocław (MPK Wrocław) implemented a project covering the delivery of 13 zero-emission buses and the installation of 14 charging points, with a planned CO₂ reduction of approximately 1,150 tonnes per year.

Green Buildings

Year	Energy Savings (GJ/year)	CO ₂ Emissions Avoided (tCO ₂ /year)*
2023	322 350	70 929
2024	241 738	65 723

Table 8. TERMO Programme Energy Savings and avoided CO₂ emissions.

Source: Ministry of Economic Development and Technology

** Data on energy savings and avoided CO₂ emissions are derived from audits that must be prepared by applicants seeking support at the application stage. In addition, these values are subject to verification by an independent external verifier contracted by the Polish Development Bank. Therefore, they may be adjusted compared to the figures presented in the application, depending on the scope of the project and the supporting technical documentation.*

Installation, maintenance, upgrade, and repair of energy efficiency equipment for buildings

Expenditures under this category support the installation, maintenance, upgrade, and repair of energy efficiency equipment in buildings through the TERMO programme (Table 8). The programme does not allow financing of heat sources based on coal or other solid fuels, unless the investment involves a switch to renewable energy sources. Investments involving gas are permitted only where they form part of a broader energy efficiency project, such as measures aimed at reducing heat losses in existing local heating systems.

5.4

Sustainable Water and Wastewater Management

Selected indicator*	Unit	Measure
Capacity of upgraded facilities	PE	102 447
Amount of sludge treated	Mg d.m./year	961
Capacity of upgraded facilities	PE	46 700
Additional population benefiting from improved water supply	persons	2 263
New users connected to water supply network	persons	456
Capacity of upgraded facilities	PE	112 500
New users connected to sewerage network	PE	37

Table 9: Selected indicators for reporting Sustainable Water and Wastewater Management

*PE - Population Equivalent

Water supply networks

The projects include the reconstruction and modernization of sewage sludge management systems in the Municipality of the City of Bolesławiec, the Municipality of Bolesławiec, and the Municipality and City of Lwówek Śląski. These investments aim to reduce waste volumes and environmental impacts while increasing the energy efficiency of sewage sludge treatment, including upgrades to thickening and dewatering systems at wastewater treatment plants in Bolesławiec and Lwówek Śląski.

Eligible Green Expenditures also cover the modernization of water and wastewater management systems in the Municipality of Grójec (Stage I), improvements to water supply infrastructure in the Municipalities of Przesmyki and Repki, the construction of a water supply network for the Józefów housing estate in Konstantynów Łódzki, and the optimization of water and wastewater management systems in Jelenia Góra (Part I).



Case Studies

These case studies illustrate how targeted investments translate into measurable environmental and operational benefits. By examining the scale, scope, and outcomes of the initiatives, they provide insight into the strategies, technologies, and practices driving the shift towards greener and more efficient infrastructure and environmental management.

The following sections present selected projects, highlighting both the challenges addressed and the results achieved, and offering a detailed perspective on Poland's ongoing commitment to sustainable development and the green transition.

6.1

Case Study 1 – Environmentally Sustainable Management of Living Natural Resources and Land Use – State Forests Afforestation

Afforestation activities carried out between 2022 and 2025 – defined as the establishment of new forest stands on land not previously classified as forest – were guided by several measurable objectives. These included increasing national forest cover, particularly in regions with the lowest forest density; improving the productivity of land previously unsuitable for agricultural or other uses by converting it into forest areas; creating ecological corridors; mitigating the effects of landscape steppe formation and climate change; and enhancing landscape diversity and natural ecosystem functions.

Afforestation in Poland is implemented under the National Programme for Increasing Forest Cover, adopted in 1995, whose primary objective is to expand forest cover nationwide. As of today, forests cover approximately 29.6% of Poland's territory, based on land officially registered as forest.

Between 2022 and the first half of 2025, a total of 2 185,04 hectares were afforested. Annual afforestation levels varied depending on the availability of land designated for afforestation in Local Spatial Development Plans or through Planning Permission Decisions, ranging from 351 hectares in 2022 to a peak of 801 hectares in 2024. The highest levels of afforestation were recorded in the Wielkopolskie, Zachodniopomorskie, and Dolnośląskie voivodeships.

Species selection for afforestation is determined by site fertility and habitats set out in the Forest Management Guidelines 2024, which also define soil preparation methods, planting densities, and permissible species mixing arrangements. Given that afforestation primarily concerns land of the lowest quality classes, coniferous species – predominantly pine – dominate, supplemented by deciduous species such as sessile oak, hornbeam, linden, and beech. Further biodiversity enhancing species include rowan, common dogwood, white dogwood, black elder, and red elder. Additional admixture species are used where appropriate, alongside natural succession processes, including forest regeneration through natural seeding. On more fertile soils, deciduous species such as beeches, firs, and oaks tend to dominate.

Gross greenhouse indirect gas emissions in tonnes of CO ₂ equivalent (tCO ₂ e)*	2023	2024	YoY change
Indirect Emissions (market-based)	34 051,4	31 483,1	- 7,8%
Indirect Emissions (location-based)	29 159,6	25 217,8	- 14,5%
Biogenic	73 007,2	76 111,8	+ 4%

Table 10: Gross indirect greenhouse gas emissions in tonnes of CO₂ equivalent (tCO₂e) for 2023 and 2024.

Source: States Forest Carbon Footprint Calculation Report 2025

* The terminology and definitions provided in annex 2



6.2

Case Study 2 – Clean Transportation – Expansion of the quay at the Gdynia Seaport

The primary objective of the investment in the redevelopment of the Indyjskie Quay was to support the sustainable development of port operations by enabling calls from vessels with a draft of up to nearly 15.0 meters (previously limited to 13.0 meters) at the Port of Gdynia. The project improved navigational conditions and the safety of hydrotechnical structures while reducing the environmental impact of port activities.

The specific objectives of the project included increasing the cargo handling capacity of the Port of Gdynia for both containerized and bulk cargo, thereby supporting international maritime trade, which – alongside rail – is a less emissions-intensive mode of transport per unit of cargo. The project also aimed to enhance the safety of vessels and transported goods, reducing the risk of accidents and potential marine pollution, and to lower emissions and noise per unit of cargo by enabling the handling of larger vessels. In addition, the redevelopment contributed to employment growth and the development of new services linked to maritime and hinterland transport.

The Indyjskie Quay was redeveloped along a 536 metre section to a technical depth of –15.5 meters. As a result, vessels with a deadweight of approximately 50,000 tonnes can now be replaced by ships with capacities of up to 90,000 tonnes. The upgrade also allows for the deployment of new cargo handling equipment with higher lifting capacity and the use of technologies that significantly accelerate operational processes.

Environmental performance was further enhanced through the construction of new sewage and water supply systems, which prevented the discharge of untreated wastewater into port basins and adjacent marine waters. In addition, the entire cargo terminal was equipped with modern, energy efficient LED lighting.

As part of the investment, the Bühler Portalink Combi C300 cargo handling unit, which had been in operation since the early 1990s, was dismantled as the equipment no longer met current operational and energy efficiency requirements.

According to the International Maritime Organization’s Fourth IMO Greenhouse Gas Study, CO2 emissions per tonne of cargo per nautical mile for bulk carriers with capacities of up to 90,000 tonnes are several percent lower than for vessels with a deadweight of up to 50,000 tonnes. In 2017, emissions amounted to 9.5 gCO₂/t-nm for bulk carriers of up to 59,000 tonnes, compared with 8.1 gCO₂/t-nm for vessels in the 60,000–99,000 tonne range.

Avoided emissions component	Measure*
from maritime transport	1.4 gCO ₂ /t-nm
from lighting	3.82 tCO ₂ /year

Table 11. Avoided emissions from the project.

Source: The National Centre for Emissions Management (KOBiZE).

* gCO₂/t-nm stand for grams of CO₂ per tonne-nautical mile; tCO₂/year stands for tonnes of CO₂ per year.



6.3

Case Study 3 – Green Buildings – The TERMO Programme

Under the TERMO programme, a range of financial instruments is available to support investments in thermomodernization, renovation, and the installation of renewable energy sources in buildings, primarily multi-family residential buildings. The programme operates under the Act of 21 November 2008 on supporting thermomodernization and renovations and the Central Register of Building Emissions and is financed through the Thermal Modernization and Renovation Fund managed by Bank Gospodarstwa Krajowego.

The programme finances a broad set of measures aimed at reducing energy consumption in multi-family buildings. These typically include the insulation of walls and ceilings, replacement of windows and doors, installation of energy management systems, and upgrades to ventilation systems. Eligible measures also include connecting buildings to district heating networks, decommissioning existing heat sources, and replacing them with renewable energy solutions.

The supported investments contribute to improved energy efficiency of buildings, lower operating and maintenance costs, reduced demand for fossil fuels supplied to, among others, combined heat and power plants, and improved technical condition and appearance of building stock. In addition, the programme supports the development of the construction market specializing in thermomodernization and renovation works.

Fuel Type	Change in Fuel Demand [GJ/year] – 2023	Change in Fuel Demand [GJ/year] – 2024
District heating	74 631	65 383
Wood biomass	1 922	4 005
Electricity	9 763	7 719
Natural gas	105 912	74 043
Heating oil	3 162	8 699
Coal	126 960	81 889

Table 12. TERMO Programme change in buildings fuel demand 2023-2024.

Source: Ministry of Economic Development and Technology





External Review

Najwyższa Izba Kontroli (NIK) – Supreme Audit Office of Poland is responsible for auditing entities and institutions entrusted with managing funds refinanced through green bonds. The Supreme Audit Office is the chief body of state control, and it operates based on the Constitution of the Republic of Poland and the Act on the Supreme Audit Office.

The Supreme Audit Office is the top independent state audit body whose mission is to safeguard public spending. For over 100 years, NIK has looked into the way the Polish state operates and how it spends public funds. The mission of the Supreme Audit Office is to foster sound management and effectiveness in public service to the benefit of the Republic of Poland.

All information about Supreme Audit Office can be found under: <https://www.nik.gov.pl/>

The audit is conducted at the budgetary level and covers the expenditure of the entire beneficiary or the Ministry/Agency supervising it. Below are links to post-audit statements of the Supreme Audit Office covering de facto all expenditures financed/refinanced for Eligible Green Expenditures (with indication of category). The audits presented cover the period from the second half of 2022 to the first half of 2025.²

Environmentally Sustainable Management of Living Natural Resources and Land Use

Institution	Document	Direct link
ARiMR	Assessment of the State Budget in 2024. Implementation of the Financial Plan of the Agency for Restructuring and Modernisation of Agriculture, and the Execution of Tasks Financed with the Participation of Funds from the European Union Budget.	See here
	Assessment of the State Budget in 2023. Implementation of the Financial Plan of the Agency for Restructuring and Modernisation of Agriculture, and the Execution of Tasks Financed with the Participation of Funds from the European Union Budget	See here
	Assessment of the State Budget in 2022. Implementation of the Financial Plan of the Agency for Restructuring and Modernisation of Agriculture, and the Execution of Tasks Financed with the Participation of Funds from the European Union Budget	See here
PGL LP	Assessment of the implementation of State Budget in the field of Maritime Climate and Environment for 2024	See here
	Assessment of the implementation of State Budget in the field of Maritime Climate and Environment for 2023	See here
	Assessment of the implementation of State Budget in the field of Maritime Climate and Environment for 2022	See here

Table 13: Supreme Audit Office reports for projects from Environmentally Sustainable Management of Living Natural Resources and Land Use category.

² At the time of the report most reports for the year 2025 are either upcoming, underway or under revision. Relevant documents will be added as they are published.

Clean Transportation – Projects in this category have been supervised by Ministry of Infrastructure (Szczecin and Świnoujście Seaports Authority S.A./ Gdynia Seaport Authority S.A.), The National Fund for Environmental Protection and Water Management and PKP Polskie Linie Kolejowe S.A. :

Institution	Document	Direct link
Ministry of Infrastructure (Szczecin and Świnoujście Seaports Authority S.A./ Gdynia Seaport Authority S.A.)	Assessment of the implementation of State Budget in the field of Maritime Economy.	See here
	The NIK audit specific to the seaports will be available in the future. The latest version from year 2023 cover period of 2018-2020 which is outside Green Bond Framework financing timespan.	Not yet available
The National Fund for Environmental Protection and Water Management (NFOŚiGW)	Assessment of the implementation of the 2024 financial plan of NFOŚiGW.	See here
	Assessment of the implementation of the 2023 financial plan of NFOŚiGW.	See here
	Assessment of the implementation of the 2022 financial plan of NFOŚiGW.	See here
PKP Polskie Linie Kolejowe S.A.	Assessment of the Implementation of the National Railway Program in the Scope of the Construction of ERTMS/ETCS Systems on Railway Lines Managed by PKP Polskie Linie Kolejowe S.A. (PKP PLK S.A.)	See here
	Assessment of the Modernization of Selected Railway Lines	See here
	Assessment of the Transport Exclusion in Rail Transport	See here

Table 14: Supreme Audit Office reports for projects from Clean Transportation category.

Green Buildings – The main and only project in this category was TERMO Programme supervised by Polish Development Bank (The Thermomodernization and Renovation Fund) under Ministry of Development and Technology:

Institution	Document	Direct link
Ministry of Development and Technology	Assessment of the implementation of the 2024 of the actions undertaken by the administrator of budget chapter 18 – Construction, spatial planning and development, and housing.	See here
	Assessment of the implementation of the 2023 of the actions undertaken by the administrator of budget chapter 18 – Construction, spatial planning and development, and housing.	See here
	Assessment of the implementation of the 2022 of the actions undertaken by the administrator of budget chapter 18 – Construction, spatial planning and development, and housing.	See here

Table 15: Supreme Audit Office reports for projects from Green Buildings category.

Sustainable Water and Wastewater Management – Projects in this category are covered by the The National Fund for Environmental Protection and Water Management (NFOŚiGW). Supreme Audit Office’s reports can be found in table 14.



Annex 1.

The Agency for Restructuring and Modernisation of Agriculture (ARiMR) plays a crucial role in the transformation of the Polish countryside, placing increasing emphasis on sustainable development and the protection of natural resources. As the primary executor of the EU Common Agricultural Policy, the Agency implements a range of programs supporting organic and pro-environmental farming. ARiMR's priority is to promote nature-friendly production methods that limit the use of chemicals and protect biodiversity. The agency's activities include granting organic payments and co-financing investments aimed at climate protection, such as modern irrigation systems or precision machinery that reduces CO2 emissions. Thanks to ARiMR's support, farmers can transition to certified production systems, contributing to improved soil and water quality. In this way, the Agency plays an important role in transforming Polish agriculture towards a model that combines economic competitiveness with environmental protection and climate change adaptation.

Szczecin and Świnoujście Seaports Authority S.A. manages two strategic Polish seaports, combining infrastructure development with a strong environmental focus and a commitment to green maritime transformation. The company consistently applies sustainable development principles, investing in projects that reduce shipping emissions, noise and vibration in port areas and support the decarbonisation of maritime transport. A key direction is the deployment of Onshore Power Supply (OPS) systems, enabling ships to use electricity from the shore instead of running their engines at berth, which significantly lowers the local carbon footprint and air pollution. New investments – including the deepwater container terminal in Świnoujście and infrastructure for offshore wind and LNG – are developed under strict environmental decisions, nature monitoring and expert supervision to minimise impacts on the Baltic Sea and coastal ecosystems. As a result, the ports of Szczecin and Świnoujście are emerging as an important hub of green marine logistics in the Baltic region.

Gdynia Seaport Authority S.A. manages one of Poland's key seaports, consistently combining economic activity with strong environmental and climate responsibility. The company's mission is to ensure the sustainable development of port infrastructure while maintaining the highest environmental protection standards, for example by reducing emissions, noise and ensuring the efficient use of natural resources. The Port of Gdynia follows the "green port" and "smart port" concepts, investing in renewable energy (such as photovoltaic farms), shore power systems that allow ships to switch off their engines at berth, and advanced water quality monitoring in the port basins, which significantly lowers local CO₂, NO_x and SO_x emissions. The Authority also supports biodiversity, runs regular environmental monitoring and implements innovative eco-projects.

The Thermomodernization and Renovation Fund is a dedicated financial instrument managed by Bank Gospodarstwa Krajowego (Polish development bank – the only institution of this type in Poland.), whose main goal is to improve the energy efficiency of existing buildings and reduce overall energy demand and greenhouse gas emissions. The Fund supports investors carrying out thermomodernization and renovation projects through a system of bonuses (thermomodernization, renovation and compensatory), which repay part of the loan used to finance the investment. Eligible measures include insulating walls and roofs, replacing windows and doors, upgrading heating systems, installing mechanical ventilation with heat recovery and deploying renewable energy technologies such as heat pumps, solar collectors and photovoltaic panels. In this way, the Fund contributes directly to lower energy consumption, improved air quality and reduced low-stack emissions, while also enhancing residents' comfort and extending the lifespan of the housing stock.

The National Fund for Environmental Protection and Water Management (NFOSiGW) is Poland's central public financial institution supporting major nationwide projects in the field of environmental protection and water management. Its mission is to improve the condition of the environment and ensure the sustainable use of natural resources by providing stable and efficient funding for pro environmental investments, ranging from large infrastructure projects to local initiatives of municipalities, businesses and households. The Fund manages both domestic public resources and numerous EU and international

programmes, financing renewable energy deployment, air quality improvement, modernisation of water and wastewater systems, waste management, climate adaptation projects and nature and biodiversity conservation. NFOŚiGW plays a key role in implementing national and EU climate policies, helping to build a low-emission economy and improve the quality of life for residents.

The State Forests – National Forest Holding (PGL Lasy Państwowe) is the largest organization in the European Union managing forests owned by the State Treasury. It operates responsibly, professionally, and openly, managing the common good – forests – ensuring their sustainability, the expansion and protection of natural resources, and the fulfilment of forest functions consistent with societal expectations and economic needs. The State Forests nurtures the biodiversity of forests and protects them from numerous threats – natural disasters, insect infestations, tree diseases, fires, pollution, as well as the effects of poaching and vandalism. In this way, it not only protects nature but also enables citizens to safely use public goods – safe both for them and for the forests themselves. They also ensure that forest management, which supplies the market with a universal ecological raw material, timber, is conducted in accordance with the principles of sustainable development, taking into account all the functions that forests perform. This is confirmed by international certificates held by the regional directorates of the State Forests.

PKP Polskie Linie Kolejowe S.A. (PKP PLK) is the manager of Poland's national railway network, combining infrastructure development with a strong environmental and climate focus. The company follows a sustainable development strategy by modernising lines to improve energy efficiency, reduce noise and cut emissions from transport by shifting passenger and freight traffic from roads to rail, one of the lowest emission transport modes. PKP PLK invests in green solutions such as photovoltaic installations powering railway infrastructure, energy saving systems and green railway initiatives that aim to increase the share of renewable energy in traction power supply. As part of its projects, the company plants trees and shrubs, builds wildlife crossings and uses noise barriers and other environmental protection facilities, thereby minimising the impact of railway lines on nature and on the quality of life of local communities.

Annex 2.

Location-based (LB) – in the location-based method, the amount of consumed electricity has been multiplied by the average greenhouse gas emission factor for Poland, derived from the KOBiZE (National Centre for Emissions Management) database.

Market-based (MB) – the market-based approach in carbon footprint analysis focuses on greenhouse gas emissions associated with purchased electricity, using emission factors specific to the electricity supplier (where such data is reliable). This approach takes into account the energy mix offered by a given supplier, including different energy sources such as coal, gas, renewables, etc. Additionally, in market-based emissions calculations, electricity consumption can be “greened” through guarantees of origin or CPPAs (corporate power purchase agreements, e.g. long-term contracts for electricity supply from renewable energy sources).

Biogenic – Out-of-scope emissions include biogenic CO₂ emissions arising from the direct combustion of biomass and biofuels. Biogenic CO₂ emissions are one of the sources classified as “out of scope” under the GHG Protocol accounting and reporting standard, as the impact of these fuels is considered net zero within Scope 1 (since the fuel source absorbs an equivalent amount of CO₂ during the growth phase as is released during combustion).