

Belarus and its sustainable development: a view from an environmental perspective

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Abstract

Sustainable practices help mitigate climate change, preserve biodiversity, and ensure that all citizens have access to clean air, water, and energy. Belarus has traditionally put some effort into promoting the concept of sustainable development within the country, particularly its environmental part. Several legal documents and commitments such as the National strategy of sustainable development for the Republic of Belarus till 2035 and the National action plan on the “green” economy development in the Republic of Belarus in 2021-2025 exemplify these efforts. However, in 2023 the country worsened its positions in the Sustainable Development Index, the Climate Change Performance Index, and the Environmental Performance Index compared to previous years. This paper aims to analyze Belarus' environmental indices and explore reasons behind negative trends, providing recommendations to enhance sustainability.

1. Introduction

Belarus has traditionally put some effort into promoting the concept of sustainable development within the country, particularly regarding the environment. Several legal documents and commitments show that the country is going to take further steps to transition to an environmentally sound economy. As an example, the National strategy of sustainable development for the Republic of Belarus till 2035¹ was approved on February 4th, 2020 (the Ministry of Economy of the Republic of Belarus, 2020). It is one of the main documents for the country's implementation of the Sustainable Development Agenda. It acknowledges the necessity to develop measures that stimulate the implementation of innovative economically feasible “green” technologies that are based on energy- and resource-saving to reach ecological security and transition to responsible consumption and production.

The National action plan for the development of a “green” economy in the Republic of Belarus for 2021-2025² was approved on December 10th, 2021 (the Ministry of Economy of the Republic of Belarus, 2021) sets 11 priorities for the green economy in the country, including among others promotion of green financing, creation of smart and energy-efficient cities, climate change mitigation and adaptation to climate change, education, and social engagement, etc. Analyzing the National Plan as a whole, it is necessary to note that addressing global tasks should not be limited to merely developing declarative documents but should extend to creating specific examples of green project implementations. Unfortunately, virtually no budget financing is allocated for these purposes and other sources of financing are not specified. There is only a general reference to the

¹ The National Sustainable Development Strategy of the Republic of Belarus for the period until 2035 <https://economy.gov.by/uploads/files/Natsionalnaja-strategija-ustojchivogo-razvitija-Respubliki-Belarus-na-period-do-2035-goda.pdf>

² National action plan for the development of a “green” economy in the Republic of Belarus for 2021-2025 <https://pravo.by/document/?guid=12551&p0=C22100710&p1=1>

possibility of attracting extrabudgetary funds, foreign financial resources, and other sources not prohibited by law. Another problematic issue is the development of indicators to monitor the green economy's development at the levels of individual enterprises, industries, and the national economy as a whole.

In 2023, the draft strategy for the development of a circular economy in the Republic of Belarus till 2035 was submitted for public discussion³. This strategic document aims at promoting the reduction in consumption of all types of raw materials and fuel and energy resources and maximum involvement of waste in the economy. It prioritizes eco-design, resource-efficient production, industrial symbiosis, sharing economy, decrease of packaging waste, its recycling and reuse. Moreover, the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus points out that the Strategy of a long-term development with low greenhouse gas emissions until 2050 is in the pipeline⁴.

However, despite the efforts made by the government, Belarus worsened its position in the major global indices measuring environmental performance in 2023 against 2020. This paper aims to analyze the scores of Belarus in the Sustainable Development Index, the Climate Change Performance Index and the Environmental Performance Index and examine the possible reasons for the recent negative trend in the environmental development of the country. The paper is structured as follows: the next section investigates the global indices and their specific indicators relevant to Belarus. Section 3 presents the discussion of the current trends in the environmental sphere. Section 4 concludes this study and highlights several policy implications.

2. Belarus in the global environmental rankings

Global environmental rankings are an essential tool for encouraging global efforts to tackle ecological challenges and promote sustainable development. These rankings aim to evaluate a country's environmental policies and practices and provide a sense of where each stands in terms of sustainability efforts, pollution control, and conservation practices. Such rankings help raise awareness among the public, businesses, and policymakers about the current state of the environment, highlighting areas that require urgent attention or improvement.

Sustainable Development Index

The Sustainable Development Goals (SDG) Index measures the progress of countries towards accomplishing the 17 SDGs. Its score can be interpreted as a percentage of the SDGs achievement⁵. The SDG Index serves as a tool to track the performance of countries towards pre-defined thresholds and evaluate whether a country is making progress or is off-track (Sachs et al., 2023). It is based on 97 indicators which are grouped by SDGs. The indicators are normalized on a 0-100 scale by a min-max function. The scores are calculated as the arithmetic mean of normalized indicators. The SDG Index has the total score and scores for individual goals (Sachs et al., 2023).

³ [Минприроды – об итогах обсуждения проекта Национальной стратегии развития экономики замкнутого цикла Республики Беларусь \(pravo.by\)](#).

⁴ [В Минприроды рассказали, как Беларусь сокращает выбросы парниковых газов | Новости | Министерство природных ресурсов и охраны окружающей среды Республики Беларусь \(minpriroda.gov.by\)](#)

⁵ [Sustainable Development Report 2023 \(sdgindex.org\)](#)

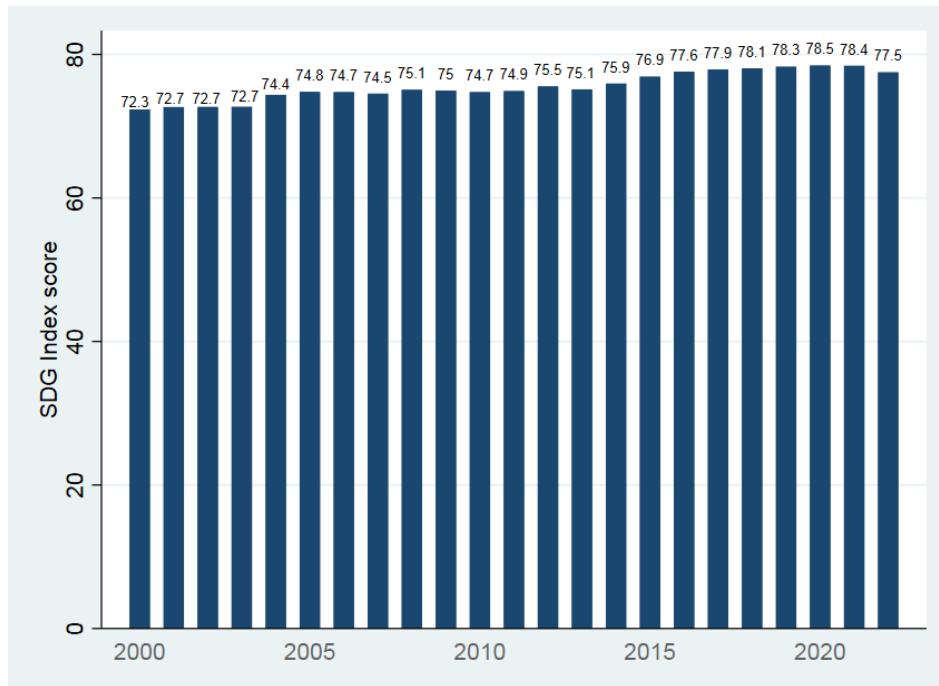


Fig. 1. SDG Index scores for Belarus in 2000-2022

Source: based on the data from [Sustainable Development Report 2023 \(sdgindex.org\)](https://sdgindex.org)

Fig. 1 represents the SDG Index scores for Belarus from 2000 till 2022⁶. Overall, there has been a significant improvement in the total score for Belarus since 2000. The score has increased by 5.2 points. Although the development was uneven in different years, the SDG Index showed steady progress starting from 2013 till 2020. In 2021 the Index score declined by 0.1 point against 2020 and in 2022 it fell to the level of 2016 decreasing to 77.5. As a result, Belarus' position in the SDG Index ranking worsened too. In 2021, Belarus ranked 24th out of 165 countries. A year later it shifted to the 34th position out of 166 countries.



Fig. 2. SDG dashboards and trends for Belarus in 2022

Source: [Sustainable Development Report 2023 \(sdgindex.org\)](https://sdgindex.org)

Figure 2 displays a dashboard with icons representing different Sustainable Development Goals (SDGs). Each icon likely corresponds to one of the 17 SDGs and is color-coded to indicate Belarus's progress in each area for the year 2022. The legend suggests color-coding may include indicators such as "Major challenges",

⁶ This is the latest available.

"Significant challenges", "Challenges remain", "SDG achieved" and "Information unavailable" with additional symbols showing trends like "Decreasing", "Stagnating", "Moderately improving", "On track or maintaining SDG achievement," and "Information unavailable."

Below is a concise analysis highlighting areas where Belarus has demonstrated progress and those where indicators have shown a decline. Considering specific goals and indicators SDG 1 “No poverty”, SDG 10 “Reduced inequalities” and SDG 15 “Life on land” are recognized as achieved by Belarus. For the rest there remain challenges of different severity⁷. SDGs related to environment and climate include goal 7 “Affordable and clean energy”, goal 11 “Sustainable cities and communities”, goal 12 “Responsible consumption and production”, and goal 13 “Climate action”. Belarus is considered to have major challenges in the areas of affordable and clean energy and climate action and significant challenges in creating sustainable cities and communities and providing sustainable consumption and production.

With respect to SDG 7 “Affordable and clean energy”, Belarus has achieved the targets regarding population with access to electricity (100%) and population with access to clean fuels and technology for cooking (99.6%⁸). However, the country is lacking progress in such indicators as CO₂ emissions from fuel combustion per total electricity output (1.6 Mt CO₂/TWh) and renewable energy share in total final energy consumption (7.8%). However, it should be noted that the latter two indicators are based on the data from 2019 in the Index. Although according to the Ministry of Energy of the Republic of Belarus, the share of renewable energy in the fuel and energy balance reached 8.1% in 2022⁹, this indicator would still be in the category of “major challenges” with respect to the SDG Index methodology.

According to the SDG 9 goal, which focuses on industry, innovation, and infrastructure, Belarus has a low level of expenditure on research and development. Investing in research and development can drive technological innovation, which in turn can help to reduce CO₂ emissions (Apanasovich, 2023).

SDG 13 “Climate action” includes such indicators as CO₂ emissions from fossil fuel combustion and cement production (6.2 tCO₂/capita¹⁰), CO₂ emissions embodied in imports (2.8 tCO₂/capita¹¹), which both are considered as major challenges for Belarus regarding which the country doesn’t show any significant improvements, and CO₂ emissions embodied in fossil fuel exports (485.7 kg/capita¹²) (Sachs et al., 2023). The latter indicator is characterized as the one where challenges remain. Both SDG 7 and 13 reflect the situation that the fuel and energy balance in Belarus is dominated by natural gas (59.1%¹³) and oil (30.5%¹⁴) which are to a large degree imported from Russia.

⁷ SDG 14 “Life below water” has not been evaluated due to missing data.

⁸ [SDR-2023-belarus.pdf \(sdgindex.org\)](#)

⁹ [Возобновляемые источники энергии | Новости Беларуси|БелТА 3 \(belta.by\)](#)

¹⁰ As of 2021.

¹¹ As of 2018.

¹² As of 2020.

¹³ As of 2020.

¹⁴ As of 2020.

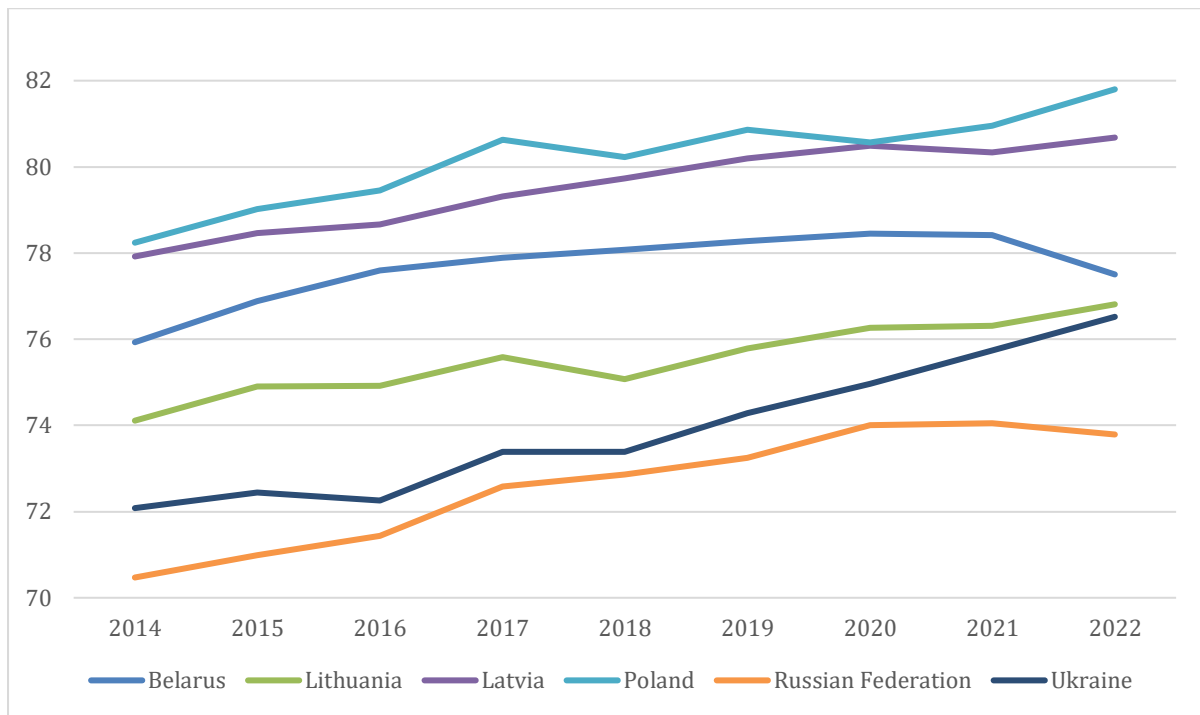


Fig. 3. SDG index

Source: based on the data from [Sustainable Development Report 2023 \(sdgindex.org\)](https://sdgindex.org)

Figure 3 displays the Sustainable Development Index from 2014 to 2022 for Belarus and its neighboring countries: Lithuania, Latvia, Poland, the Russian Federation, and Ukraine. Belarus has experienced a constant increase in its score from 2014 to 2020. Initially, Belarus's score may have been higher or on par with several of the other countries listed. However, Belarus's relative position compared to the other countries has shifted downwards since 2020, moving from the 24th to the 34th place out of 166 countries in one year, as was previously mentioned, underlining the relative speed and scale of this decline. In contrast, the lines for other countries would either continue to rise or plateau, indicating ongoing progress or stability in their sustainable development efforts. The divergence of Belarus's line from the trend followed by its neighbors would visually represent the challenges Belarus faced in sustaining its development progress post-2020. This decline may suggest the need for a strategic reassessment of Belarus's approach to sustainable development in comparison to the more positive or stable trends observed in the other countries.

Climate Change Performance Index

The Climate Change Performance Index (CCPI) is a tool to monitor the climate protection efforts of 63 countries and the EU, which together make up more than 90% of global greenhouse gas (GHG) emissions. The CCPI tracks the climate protection performance in four areas: GHG emissions (40% of overall score), renewable energy (20% of overall score), energy use (20% of overall score), climate policy (20% of overall score) (Burck et al., 2024). The first three categories are each assessed quantitatively by four indicators (current level, past trend, well-below-2°C compatibility of the current level, well-below-2°C compatibility of the countries' 2030 Target) and are based on quantitative data from internationally recognized institutions. The category 'climate policy' covers the recent developments regarding national climate policies and is assessed qualitatively by climate and energy experts from the evaluated countries (Burck et al., 2024). The CCPI ranks countries' efforts in climate protection as very high, high, medium, low, and very low. However, it should be noted that no country is considered to be doing enough in terms of preventing climate change that's why no country has received very high ranking.

Fig. 4 shows the CCPI scores for Belarus in 2008-2024.

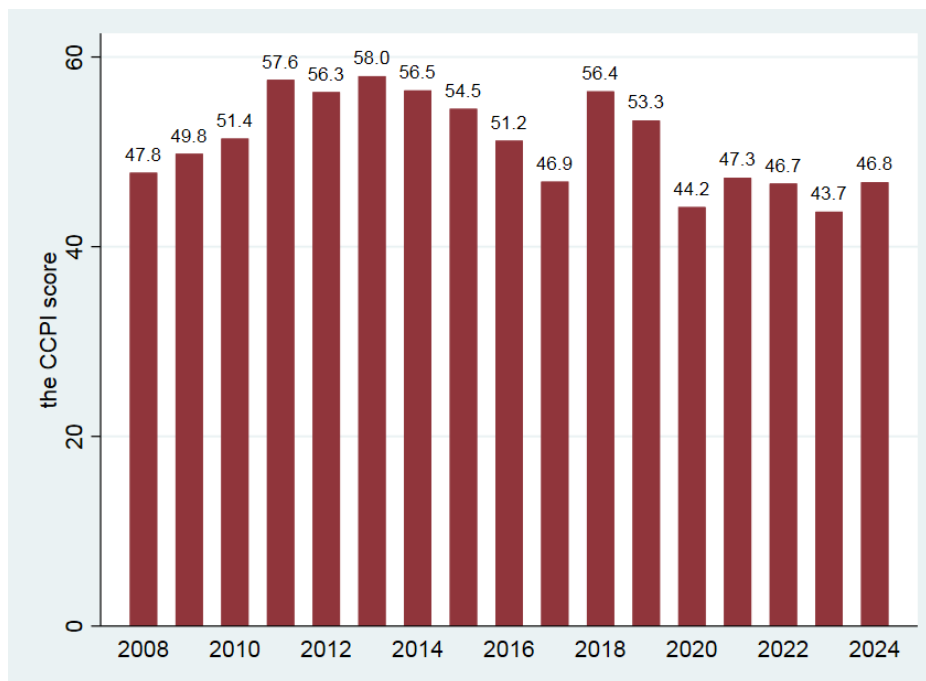


Fig. 4. The CCPI scores for Belarus in 2008-2024

Source: based on the data from Climate Change Performance Index reports 2008-2024

The CCPI for Belarus exhibited uneven development in 2008-2024. It reached its highest level equal to 57.98 in 2013, and its lowest level equal to 43.7 - in 2023. Overall, the CCPI score decreased by 1 point in 2024 against 2008. In the majority of the years under consideration Belarus' efforts to prevent climate change were ranked as low, exceptions are the years of 2010-2012 and 2018-2019 when they were characterized as medium or moderate.

The CCPI scores were the lowest in 2020-2024 and 2017 during the whole period under consideration showing that in the recent years climate protection was even less on the agenda in Belarus than earlier. Although the 2024 score improved by 2.6 points compared to 2020, the position of Belarus among other countries considerably worsened. In 2020, Belarus took the 40th place in the CCPI ranking. In 2024, the country shifted to 47th place.

With respect to the 2024 CCPI, Belarus performs differently in various categories (table 1). In the areas of GHG emissions and energy use, the country received a medium rating for the respective categories. However, the efforts with respect to renewable energy and climate policy were rated as very low. That in the end leads to the overall low ranking of the 2024 CCPI for Belarus.

Table 1. The 2024 CCPI for Belarus across categories and indicators

Category / Indicator	Score / Rating for the Category	Estimation
<i>GHG emissions</i>	24.92 - Medium	
- GHG per Capita – current level (including LULUCF*)		Medium

- GHG per Capita – current trend (excluding LULUCF)		Low
- GHG per Capita – compared to a well-below-2°C benchmark		High
- GHG 2030 Target – compared to a well-below-2°C benchmark		Medium
<i>Renewable energy</i>	3.24 – Very low	
- Share of RE in Energy Use (TPES)** – current level (incl. hydro)		Low
- RE current trend (excl. hydro)		High
- Share of RE in Energy Use (TPES) (incl. hydro) – compared to a well-below-2°C benchmark		Very Low
- RE 2030 Target (incl. hydro) – compared to a well-below-2°C benchmark		Very Low
<i>Energy use</i>	13.78 - Medium	
- Energy Use (TPES) per Capita – current level		Medium
- Energy Use (TPES) per Capita – current trend		Low
- Energy Use (TPES) per Capita – compared to a well-below-2°C benchmark		Medium
- Energy Use 2030 Target – compared to a well-below-2°C benchmark		High
<i>Climate policy</i>	4.86 – Very low	
- National climate policy performance		Low
- International climate policy performance		Very Low

Note: *Land Use, Land-Use Change and Forestry

**Total Primary Energy Supply

Source: based on the data from (Burck et al., 2024).

The CCPI country experts for Belarus criticize the country's high dependency on imported energy sources and its low diversification of suppliers¹⁵, the unambitious 2030 targets, a lack of political will and investments for phasing out oil and natural gas. They also argue for strengthening the national legal system, implementing a carbon market, and creating incentives for low-emission technologies¹⁶.

Environmental Performance Index

¹⁵ Russian natural gas constitutes over half of Belarus' primary energy supply.

¹⁶ [Belarus – Climate Performance Ranking 2024 | Climate Change Performance Index \(ccpi.org\)](https://www.ccpindex.org/).

The Environmental Performance Index (EPI) ranks the performance of countries on environmental health, ecosystem vitality and their efforts to prevent climate change. It allows tracking the countries' progress towards established environmental policy targets. It was first calculated in 2006 and since then it has been published every two years. The 2022 EPI which is the latest available at the moment is based on 40 indicators organized in 11 issue categories: (1) climate change mitigation, (2) biodiversity & habitat, (3) ecosystem services, (4) fisheries, (5) acid rain, (6) agriculture, (7) water resources, (8) air quality, (9) sanitation & drinking water, (10) heavy metals, (11) waste management¹⁷. These categories are then grouped into three policy objectives, namely climate, environmental health, and ecosystem vitality. The EPI framework was constantly improved and more indicators during the years. For example, the 2010 EPI used 25 indicators across 10 categories (Emerson et al., 2010). In 2020, it included 32 indicators (Wendling et al., 2020). Thus, it is not possible to directly compare EPIs for different years. However, the trend reflected by the EPI scores over the years is still a good basis to understand where a particular country is heading with respect to its overall environmental performance.

Fig. 5 shows the EPI scores for Belarus in 2016-2022. We have decided to present the EPI scores for Belarus starting from 2016 as since then the EPI has been evaluating the constant number of countries (180) and the EPI methodology has been closer to its present version than in the previous years. Even if we do not compare the scores for Belarus over the years directly (fig. 3), we can, nevertheless, observe a clearly pronounced declining trend in the EPI for the country. The EPI rank for Belarus also shows the same direction: in 2016 the country took the 35th place among 180, in 2022 its position shifted to the 55th place.

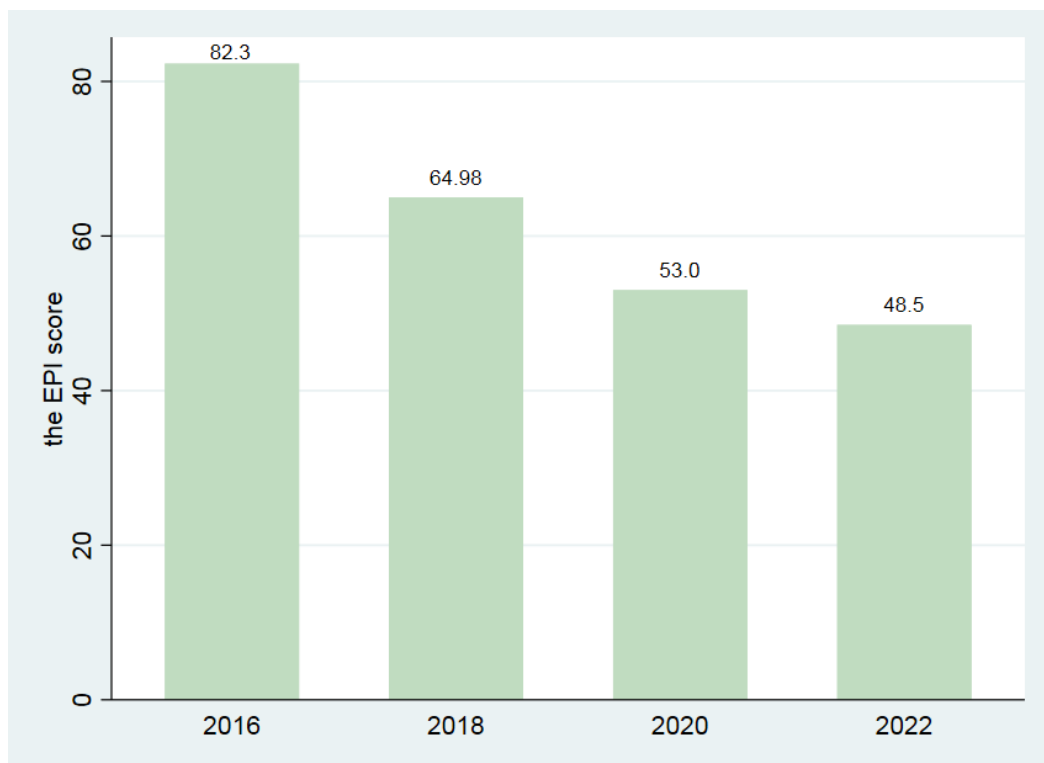


Fig. 5. The EPI scores for Belarus in 2016-2022

Source: based on the data from the EPI Reports for 2016, 2018, 2020, 2022.

In the 2022 EPI, Belarus ranked 55th among 180 countries taking the second place (after Ukraine) among the former Soviet states (Wolf et al., 2022). It is worth drawing attention to how differently Belarus performs with respect to the three policy objectives of the EPI. The 2022 score of Belarus for environmental health is 51.1 taking the 52nd place among all the countries under analysis. Regarding ecosystem

¹⁷ [Welcome | Environmental Performance Index \(yale.edu\)](https://www.epi.yale.edu/).

vitality the performance is even better – with the score of 55.4, Belarus ranked 41st among others. However, climate change mitigation efforts are again evaluated as insufficient. The country has the score of 39.6 taking the 94th place.

3. Current trends in the environmental sphere

In the recent years, the institutional development in the environmental sphere of Belarus has been quite uneven, which finds its reflection in the global environmental rankings particularly in their part regarding climate change mitigation efforts. The current *negative incidents and trends* with respect to the institutional development in the environmental sphere among others include the following:

- the packages of economic sanctions in response to the widely queried validity of the 2020 elections and Belarus's involvement in the Russian war with Ukraine (World Bank, 2022) led to the **suspension of projects and investments from international investors** in Belarus.
- the **withdrawal from the Aarhus Convention** in 2022. The UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters of 1998 implements the human right to a healthy and sustainable environment which includes the access to justice, participation, and information. The Aarhus Convention requires that people using these rights are not prosecuted¹⁸.
- dominance of the energy sector by imported fossil fuels, low diversification of energy suppliers and a marginal share of renewables.
- **massive forced liquidation or forced self-liquidation of ecological NGOs** in the country. The wave of 'cleaning-up' the Belarusian civic society started in 2021 also swept upon the ecological NGOs¹⁹.

However, there are also several *positive developments* in the environmental sphere. Here there are some examples:

- further **preparation of strategic documents** with respect of circular economy and low-carbon development of Belarus (e.g., the draft strategy for the development of a circular economy in the Republic of Belarus till 2035, the Strategy of a long-term development with low greenhouse gas emissions until 2050).
- further **participation of enterprises from Belarus in the United Nations Global Compact**. This is the largest corporate sustainability initiative in the world which requires companies to adhere their operations to the principles on environment, human rights, labor, and anti-corruption. As of March 2024, there are 31²⁰ companies from Belarus participating in the United Nations Global Compact. It is worth pointing out that by the end of 2021 there were also 31 participants from Belarus, however, not all the companies were the same as in 2024.
- design and adoption of the first **methodology for assigning ESG ratings** to companies, cities and regions. It was created by the rating agency BIK Ratings in 2022. This methodology estimates the company's with the principles of sustainable development when making key management decisions in the environmental, social and corporate spheres (governance) (ESG). At present (as of March 2024) there are 11 enterprises that have a ESG rating assigned to them²¹.

¹⁸ [Belarus: UN experts denounce withdrawal from Aarhus Convention | OHCHR](#)

¹⁹ [«Минску не нужны проявления гражданской позиции ни в каком виде». Эксперты о выходе Беларуси из Орхусской конвенции, экологии и «правовом дефолте» страны \(rfi.fr\)](#)

²⁰ [Our Participants | UN Global Compact](#)

²¹ [Устойчивое развитие | BIK Ratings.](#)

4. Conclusion

Belarus has currently worsened its position in major global environmental rankings. In particular, the country shifted to the 34th position out of 166 countries in the SDG Index in 2022 with a score of 77.5 having a year earlier the 24th rank with a score of 78.4. In the 2024 CCPI Belarus took the 47th place out of 63 countries and the EU worsening its rank by 7 places against 2020. Although the CCPI score moderately improved in 2024 for Belarus vs. 2020, it has been the lowest in 2020-2024 compared to all the previous years since 2008 (except for 2017). The EPI scores for Belarus in 2016-2022 are also on the path of constant decrease. These developments reflect the problems that the fuel and energy balance in Belarus is dominated by natural gas and oil that are largely imported, there is insufficient diversification of energy resources suppliers and a very low share of renewables in total final energy consumption. Even more importantly, they point out at the low climate change mitigation efforts from the country in the national and international policies. Additionally, the suspension of international projects and investment in the environmental sphere as a result of sanctions, Belarus' withdrawal from the Aarhus Convention and the massive forced liquidation or self-liquidation of ecological NGOs further aggravate the situation.

Belarus's decline in Sustainable Development Index, is linked to key challenges across multiple SDGs, including the need to boost renewable energy, ensure labor rights, increase R&D expenditure, manage waste and emissions, tackle climate action issues, and strengthen institutional integrity.

To enhance its sustainable development, Belarus should focus on boosting renewable energy use and diversify its energy suppliers. This includes supporting sustainable public transport and electric vehicles, enforcing stricter environmental laws, and reconnecting with global environmental agreements like the Aarhus Convention. Additionally, Belarus should incentivize research in green technologies, encourage government and private sector collaboration on environmental initiatives, and develop detailed climate action plans. It's also vital to acknowledge and collaborate with environmental NGOs and actively involve the community in environmental decisions and initiatives.

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