

Socio-economic situation of rural municipalities in Mazowieckie Voivodeship in selected aspects of sustainable development

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Abstract

The aim of this article is to analyse the socio-economic situation of rural municipalities in Mazowieckie Voivodeship, based on selected indicators across areas corresponding to the goals of sustainable development (social, economic, and environmental). The research focuses on 215 rural municipalities within Mazowieckie Voivodeship.

The findings indicate a consistent trend of growing disparities in the socio-economic situation of rural municipalities between the two regions of Mazowieckie Voivodeship: the Warsaw Capital Region (Polish: *warszawski stołeczny*) and the Mazovian Regional Region (Polish: *mazowiecki regionalny*). Rural municipalities in the Warsaw Capital Region are the leaders in terms of demographic potential and socio-economic development. In contrast, rural municipalities in the Mazovian Regional Region are characterised by a lower level of socio-economic development and weaker demographic potential. The disparities between the regions of Mazowieckie Voivodeship also point to an intensifying process of abandoning agricultural activity. One potential opportunity for strengthening development initiatives in municipalities with large areas of legally protected land is support in the form of ecological subsidies.

Keywords: environmental needs, socio-economic development, sustainable development.

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Introduction

Issues related to socio-economic development are frequently addressed in the literature on the subject, as well as in governmental and regional strategic documents. Matters concerning the socio-economic and spatial situation of the country, regions, and rural areas, along with environmental protection, have been included in documents such as the National Strategy of Regional Development 2030 titled “Rozwój społecznie wrażliwy i terytorialnie zrównoważony” (Socially Sensitive and Territorially Sustainable Development)¹, the “Strategy for Responsible Development for the period up to 2020, including the perspective up to 2030” (the medium-term national development strategy²), and the draft “National Development Concept 2050”³. The socio-economic situation of Mazowieckie Voivodeship and the directions for intervention have been outlined, among others, in the “Development Strategy of Mazowieckie Voivodship 2030+: Mazovia as an Innovative Region”⁴.

Sustainable development, a term first introduced in the 1987 Report of the World Commission on Environment and Development titled “Our Common Future” (commonly referred to as the Brundtland Report), is understood as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”⁵. In Polish law, the principle of sustainable development is enshrined in the Constitution of the Republic of Poland (Article 5). Moreover, the Environmental law defines sustainable development as “socio-economic development in which the process of integrating political, economic and social actions takes place while preserving the natural balance and the durability of basic natural processes, in order to ensure the ability to satisfy the basic needs of individual communities

1. Ministerstwo Funduszy i Polityki Regionalnej, *Krajowa Strategia Rozwoju Regionalnego do 2030 roku “Rozwój społecznie wrażliwy i terytorialnie zrównoważony”*, <https://www.gov.pl/web/fundusze-regiony/krajowa-strategia-rozwoju-regionalnego>, access 5.02.2025. Hereinafter referred to as the “National Strategy of Regional Development”.
2. Ministerstwo Funduszy i Polityki Regionalnej, *Strategia na rzecz Odpowiedzialnego Rozwoju do roku 2020 (z perspektywą do 2030 roku)*, <https://www.gov.pl/web/fundusze-regiony/informacje-o-strategii-na-rzecz-odpowiedzialnego-rozwoju>, access 5.02.2025. Hereinafter referred to as the “Strategy for Responsible Development”.
3. Ministerstwo Funduszy i Polityki Regionalnej, *Koncepcja Rozwoju Kraju 2050. Projekt*, Warszawa 2024, <https://www.gov.pl/web/fundusze-regiony/zapoznaj-sie-z-projektem-krk-2050>, access 7.05.2025.
4. Mazowieckie Biuro Planowania Regionalnego w Warszawie, *Strategia Rozwoju Województwa Mazowieckiego 2030+ Innowacyjne Mazowsze*, Warszawa 2022. Hereinafter referred to as the “Development Strategy of Mazowieckie Voivodship”.
5. G.H. Brundtland, *Our Common Future: Report of the World Commission on Environment and Development*, Geneva 1987, UN Document A/42/427, I.3.27, <http://www.un-documents.net/ocf-ov.htm>, access 9.05.2025.

or citizens of both the present and future generations”⁶. Sustainable development is a long-term goal of the European Union and forms part of its action programme through the implementation of 17 goals across three dimensions: economic, social, and environmental. These Sustainable Development Goals are outlined in the strategic document entitled “Transforming our world: the 2030 Agenda for Sustainable Development”, adopted by the United Nations⁷. The 2030 Agenda focuses on five key dimensions, referred to as the 5 Ps: People, Planet, Prosperity, Peace, and Partnership.

The National Strategy of Regional Development identifies areas for intervention, including the risk of municipalities falling into permanent marginalisation. This phenomenon is defined as “spatially differentiated clusters of rural municipalities and functionally related small towns, which differ in terms of their level of socio-economic development and economic functions, where a concentration of negative social and economic phenomena has occurred”⁸. The main principle of the Strategy for Responsible Development, as pointed out by M.A. Król, is the sustainable development of the country in its social, economic, environmental, and territorial dimensions. Among other things, it is crucial to apply appropriate instruments to support the implementation of sustainability principles, environmental protection in rural areas (including the protection of land resources and biodiversity), and spatial order (including “the protection of agricultural and forest land, improvement of the land structure of family farms, and preservation of land resources for the development of Polish agriculture”)⁹. Work is underway on a new medium-term national development strategy for the period up to 2035. This document is based on the draft National Development Concept 2050, which identifies social, economic, and environmental trends with potentially the greatest impact on Poland. These include the new economy (including the transformation of agriculture due to climate change, technological advancement, and evolving consumption patterns), the intensification of global social problems (including demographic uncertainty and growing social inequalities), the increasing pace of environmental and climate changes, and the reorganisation of space

6. Ustawa z 27 kwietnia 2001 r. Prawo ochrony środowiska, t.j. Dz. U. 2024 poz. 54 ze zm., art.3 pkt 50.

7. United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on 25 September 2015*, A/RES/70/1, <https://www.gov.pl/web/rozwoj-technologie/agenda-2030>, access 10.02.2025. Hereinafter referred to as the “2030 Agenda”.

8. Ministerstwo Funduszy i Polityki Regionalnej, *Roczny raport regionalny 2022. Raport z monitoringu Krajowej Strategii Rozwoju Regionalnego 2030 “Rozwój społecznie wrażliwy i terytorialnie zrównoważony”*, Warszawa 2023, <https://www.gov.pl/web/fundusze-regiony/krajowa-strategia-rozwoju-region-alnego>, access 15.02.2025.

9. M.A. Król, *Instrumenty ochrony środowiska i ładu przestrzennego na obszarach wiejskich w Strategii na rzecz Odpowiedzialnego Rozwoju w kontekście procesu integracji europejskiej* [in:] *Integracja Europejska jako determinanta polityki Wiejskiej. Aspekty Prawne*, red. P. Litwiniuk, Fundacja Programów Pomocy dla Rolnictwa FAPA 2017, p. 127–128.

(including the expansion of strong cities and urban functional areas, transformations in rural areas, and changes in land use)¹⁰.

Due to the complexity of the process, the concept of socio-economic development is defined in various ways in the literature on the subject¹¹. According to Jerzy J. Parysek, socio-economic development is “the totality of changes or transformations experienced by both society and the economy”¹². When considering the purpose of socio-economic development, both economic and non-economic factors are taken into account, including, among others: “the geographical factor, demographic potential, capital availability, technical infrastructure, research and development activity, innovation, technological progress, an efficient healthcare system, universal access to high-quality education and science, well-functioning state institutions, and a developed financial system”¹³. Socio-economic development at the local level is influenced not only by local factors but also by regional and national ones¹⁴. As Monika Stanny noted, the aim of socio-economic development in rural areas is “to create economic and social structures in the local environment that are capable of generating decent incomes for residents, improving access to public goods and services, and avoiding adverse phenomena (such as economic monofunctionality, agrarian overpopulation, depopulation, unemployment, poverty, and marginalisation)”¹⁵. Achieving this objective poses a challenge for municipalities located far from urban centres. These municipalities are characterised by a lower level of development compared to areas adjacent to cities. As a result, growing disparities deepen internal differentiation in the level of development among local government units within a given voivodeship.

An example of a region exhibiting internal differences in the socio-economic development of municipalities in peripheral areas and those neighbouring a major

10. Ministerstwo Funduszy i Polityki Regionalnej, *Koncepcja Rozwoju Kraju 2050*. Projekt, op. cit., p. 6.
11. See Z. Chojnicki, T. Czyż, *Rozwój społeczno-gospodarczy w ujęciu regionalnym*, “Biuletyn PAN. Komitet Przestrzennego Zagospodarowania Kraju” 2005, z. 219; U. Ziemiańczyk, *Ocena poziomu rozwoju społeczno-gospodarczego gmin wiejskich i miejsko-wiejskich w województwie małopolskim*, “Infrastruktura i ekologia terenów wiejskich” 2010, nr 14, PAN, Oddział w Krakowie; A. Kubiczek, *Jak mierzyć dziś rozwój społeczno-gospodarczy krajów?*, “Nierówności społeczne a wzrost gospodarczy” 2014, nr 38; M. Stanny, W. Strzelczyk, *Zróżnicowanie przestrzenne sytuacji dochodowej gmin a rozwój społeczno-gospodarczy obszarów wiejskich w Polsce*, “Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu” 2015, t. 17, nr 4; A. Malina, *Analiza przestrzennego zróżnicowania poziomu rozwoju społeczno-gospodarczego województw Polski w latach 2005–2017*, “Nierówności społeczne a wzrost gospodarczy” 2020, nr 61.
12. J.J. Parysek, *Rozwój społeczno-gospodarczy oraz czynniki i uwarunkowania rozwoju*, “Studia komitetu przestrzennego zagospodarowania kraju PAN” 2018, nr 183, p. 39.
13. I. Pawlas, *Regionalne dysproporcje rozwojowe – przypadek Polski*, “Studia Ekonomiczne i Regionalne. Economic And Regional Studies” 2017, nr 10(3), p. 18, DOI: <https://doi.org/10.2478/ers-2017-0021>.
14. M. Męczyński, B. Konecka-Szydłowska, J. Gadziński, *Poziom rozwoju społeczno-gospodarczego i klasyfikacja małych miast w Wielkopolsce*, Uniwersytet im. Adama Mickiewicza w Poznaniu Instytut Geografii Społeczno-Ekonomicznej i Gospodarki Przestrzennej, Poznań 2010, p. 6.
15. M. Stanny, *Przestrzenne zróżnicowanie rozwoju obszarów wiejskich w Polsce*, Instytut Rozwoju Wsi i Rolnictwa Polskiej Akademii Nauk, Warszawa 2013, p. 121.

urban centre – Warsaw – is Mazowieckie Voivodeship¹⁶. Hence the choice of this voivodeship as the area of study.

Mazowieckie Voivodeship¹⁷ is often perceived through the lens of Warsaw – as a major economic and academic centre – which translates, among other things, into the highest level of economic development in Poland, the largest share in the creation of gross domestic product (GDP), and the highest GDP per capita. It is the largest voivodeship in the country in terms of area (35,559 km², or 11.4% of Poland's territory) and population (5,510.5 thousand people, or 14.6% of the Polish population)¹⁸. It comprises 314 municipalities, including 215 rural municipalities – the highest number in the country¹⁹. The rural areas of the voivodeship consist of 8,496 rural localities²⁰. Mazovia's legally protected areas represent the second largest total surface area in Poland (1,055.2 thousand hectares)²¹. For this reason, in 2025, Mazowieckie Voivodeship will receive the largest ecological subsidy (based on environmental needs)²² among all voivodeships – PLN 15.1 million²³.

Aim and methodology

The primary aim of this article is to analyse the socio-economic situation and development level of rural municipalities in Mazowieckie Voivodeship. The study covered 215 rural municipalities due to their predominance in the total number of municipalities within the voivodeship²⁴. The analysis was conducted across three areas corresponding to the Sustainable Development Goals (SDGs): social, economic, and environmental, each involving selected indicators. The areas of analysis and selected

16. M. Iwańska, W. Bieńkowska, *Obszary wiejskie na Mazowszu w świetle dokumentów strategicznych województwa*, "Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu" 2009, t. 11, z. 4; P. Lysoń, *Zróżnicowanie obszaru województwa mazowieckiego pod względem historycznym, demograficznym i warunków życia. Wnioski do korekty podziału terytorialnego*, "Opinie i Ekspertyzy" 2017, nr 256, Kancelaria Senatu, Warszawa 2017; J. Bański, *Wyzwania rozwojowe na obszarach wiejskich w województwie mazowieckim*, "Mazowsze. Studia Regionalne. Analizy i Studia" 2018, nr 25, DOI: 10.21858/msr.25.03; T. Siudek, K. Drabarczyk, A. Zawojka, *Rozwój społeczny powiatów województwa mazowieckiego – kwantyfikacja i ocena*, "Zeszyty Naukowe SGGW – Ekonomika i Organizacja Gospodarki Żywnościowej" 2018, nr 123, DOI: <https://doi.org/10.22630/EIOGZ.2018.123.19>.

17. Hereinafter referred to as "Mazovia".

18. Urząd Statystyczny w Warszawie, *Rocznik statystyczny województwa mazowieckiego*, Warszawa 2024, table 1(16).

19. Ibidem, p. 9.

20. Urząd Statystyczny w Warszawie, *Województwo mazowieckie w liczbach 2024*, Warszawa 2024, p. 1.

21. GUS, *Ochrona środowiska 2024*, Warszawa 2024, table 3(168).

22. Hereinafter referred to as "ecological subsidies".

23. M. Szalast-Piwińska, *Subwencja ekologiczna – instrument wsparcia dla gmin z obszarami chronionymi*, "Ubezpieczenia w Rolnictwie – Materiały i Studia" 2024, nr 2(82), DOI: 10.48058/urms/82.2024.3, p. 74.

24. Bank Danych Lokalnych Główny Urząd Statystyczny, <https://bdl.stat.gov.pl>, access 10.02.2025.

indicators are presented in Table 1. Data for selected indicators from 2023 were compared with data from 2019. The choice of 2019 as a reference year is linked to the division of Mazowieckie Voivodeship in 2018 into two statistical units: the Warsaw Capital Region and the Mazovian Regional Region.

Table 1. Areas of analysis and selected indicators of socio-economic aspects

No.	Indicator
Social area	
1	Population
2	Net migration per 1,000 population (permanent residence)
3	Natural population change per 1,000 population
Economic area	
1	Municipal budget revenue per capita
2	Municipal budget expenditure per capita
3	Employed persons in the national economy by economic sectors and place of residence
4	Registered unemployed persons
Environmental area	
1	Protected areas coverage
2	Forest land area
3	Ecological subsidy for municipalities with legally protected areas

Source: Own study.

The key issue to address is counteracting the adverse demographic phenomena and mass outmigration from rural municipalities located in the peripheral areas of Mazovia, while processes conducive to development continue to concentrate in municipalities neighbouring Warsaw. In the future, this may lead to the marginalisation of “non-developmental” municipalities on both the local and regional scale, as well as the permanent depopulation of rural municipalities.

Based on the relationship between the value of natural population change per 1,000 residents (NPC) and net migration per 1,000 residents (NM), the studied municipalities were classified into specific demographic development types according to J.W. Webb's typology²⁵. Under Webb's method, four developmental (population-increasing) types and four regressive (population-declining) types are distinguished – see Table 2.

25. J.W. Webb, *Ruch naturalny i migracyjny jako składnik przemian ludnościowych*, “Przegląd Zagranicznej Literatury Geograficznej” 1964, nr 1.

Table 2. Demographic development types according to Webb's classification

Type	Description	Type character
A	+NPC > -NM : natural increase is higher than negative net migration	developmental (population-increasing)
B	+NPC > +NM : natural increase is higher than positive net migration	developmental (population-increasing)
C	+NPC < +NM: natural increase is lower than positive net migration	developmental (population-increasing)
D	-NPC < +NM: positive net migration offsets natural decrease	developmental (population-increasing)
E	-NPC > +NM: positive net migration does not offset natural decrease	regressive (population-declining)
F	-NPC > -NM : natural decrease and negative, but not smaller (in absolute value) net migration – the population decline was primarily caused by natural decrease rather than negative net migration	regressive (population-declining)
G	-NPC < -NM : natural decrease and negative, but not greater (in absolute value) net migration – the population decline was primarily caused by negative net migration rather than natural decrease	regressive (population-declining)
H	+NPC < -NM : natural increase does not offset negative net migration	regressive (population-declining)

Source: M. Męczyński, B. Konecka-Szydłowska, J. Gadziński, *Poziom rozwoju społeczno-gospodarczego i klasyfikacja małych miast w Wielkopolsce*, Uniwersytet im. Adama Mickiewicza w Poznaniu, Instytut Geografii Społeczno-Ekonomicznej i Gospodarki Przestrzennej, Poznań 2010, p. 14–15; Urząd Statystyczny w Warszawie, *Sytuacja demograficzna województwa mazowieckiego w 2023 r.*, Warszawa 2024, p. 26.

A desk research method was applied. The sources of information included studies from the Central Statistical Office in Warsaw (Statistics Poland), data from the Local Data Bank of Statistics Poland (Statistics Poland LDB), governmental and regional strategic documents, as well as the subject literature. The basis for calculating the amount of the ecological subsidy for 2025 for the rural municipalities of Mazovia included in the study was the Act on the Revenues of Local Government Units of 2024 and the Annex to the Regulatory Impact Assessment (Polish: *Ocena Skutków Regulacji*, OSR) of 15 July 2024 for the draft version of this Act.

Research results

In 2018, Mazowieckie Voivodeship was divided into two statistical units: the Warsaw Capital Region, which includes three subregions (the city of Warsaw, Eastern Warsaw, and Western Warsaw), and the Mazovian Regional Region, which consists of six subregions (Ciechanów, Ostrołęka, Płock, Radom, Siedlce, and Żyrardów) – see Table 3.

The Warsaw Capital Region covers the capital city of Warsaw and nine poviats: Grodzisk Mazowiecki, Legionowo, Mińsk Mazowiecki, Nowy Dwór Mazowiecki, Otwock, Piaseczno, Pruszków, Western Warsaw, and Wołomin. The Mazovian Regional Region comprises 28 poviats: Białobrzegi, Ciechanów, Garwolin, Gostynin, Grójec, Kozenice, Lipsko, Łosice, Maków Mazowiecki, Mława, Ostrołęka, Ostrów Mazowiecka, Płock, Płońsk, Przasnysz, Przysucha, Pułtusk, Radom, Siedlce, Sierpc, Sochaczew, Sokołów Podlaski, Szydłowiec, Węgrów, Wyszaków, Zwoleń, Żuromin, and Żyrardów, as well as four cities with powiat status: Radom, Płock, Ostrołęka, and Siedlce²⁶.

Table 3. Area and population of regions and subregions of Mazowieckie Voivodeship in 2023

Specification	Area (thous. ha)	Area (%) Mazowieckie Voivodeship =100%	Population (thous.)
Mazowieckie Voivodeship	3,555.9	100%	5,510.5
Warsaw Capital Region	610.4	17.2%	3,270.7
– Warsaw City Subregion	51.7	1.5%	1,861.6
– Eastern Warsaw Subregion	312.4	8.8%	693.9
– Western Warsaw Subregion	246.3	6.9%	715.2
Mazovian Regional Region	2,945.5	82.8%	2,239.8
– Ciechanów Subregion	525.5	14.8%	324.0
– Ostrołęka Subregion	650.5	18.3%	368.3
– Płock Subregion	335.2	9.4%	311.2
– Radom Subregion	576.3	16.2%	579.1
– Siedlce Subregion	604.5	17.0%	401.8
– Żyrardów Subregion	253.5	7.1%	255.4

Source: *Urząd Statystyczny w Warszawie, Region mazowiecki regionalny w 2023 r., Warszawa 2024, p. 14.*

The area of the Warsaw Capital Region is nearly five times smaller than that of the Mazovian Regional Region. However, this area is inhabited by 59% of the voivodeship's population. A clear example of population concentration in the vicinity of Warsaw is found in the Eastern Warsaw and Western Warsaw subregions. The population of these two subregions (1,409.1 thousand) is nearly equal to the total population of four subregions within the Mazovian Regional Region – namely, the Ciechanów, Ostrołęka, Płock, and Siedlce subregions (1,405.3 thousand). However, the area of these four

26. Commission Regulation (EU) 2016/2066 of 21 November 2016 amending the annexes to Regulation (EC) No 1059/2003 of the European Parliament and of the Council on the establishment of a common classification of territorial units for statistics (NUTS).

subregions is nearly four times larger than that of the Eastern and Western Warsaw subregions – i.e. 2,115.7 thousand hectares compared to 558.7 thousand hectares.

Social area

Population

“People” is one of the key dimensions of the 2030 Agenda. A prerequisite for sustainable development includes, among others, the fight against poverty and hunger, decent work, and living in a healthy environment (e.g. Goal 1: No Poverty, Goal 2: Zero Hunger, Goal 8: Decent Work and Economic Growth, Goal 10: Reduced Inequalities, and Goal 15: Life on Land). The implementation of these goals can be assessed based on the values of demographic indicators, such as population size, natural population change, and net migration. These have a significant impact on assessing the attractiveness of a given region or municipality, as well as their socio-economic development potential.

The analysis of the dynamics of changes in selected indicators in this area – i.e. population size, net migration per 1,000 population (permanent residence), and natural population change per 1,000 residents – was carried out for the regions of Mazovia and the rural municipalities included in the study.

Table 4. Population of regions and subregions of Mazowieckie Voivodeship in 2019 and 2023

Specification	Population (thous.)		Difference 2019/2023 (%)
	2019	2023	
Mazowieckie Voivodeship	5,423	5,510	1.6%
Warsaw Capital Region	3,086	3,271	6.0%
– Warsaw City Subregion	1,791	1,862	4.0%
– Eastern Warsaw Subregion	647	694	7.3%
– Western Warsaw Subregion	648	715	10.3%
Mazovian Regional Region	2,337	2,240	-4.2%
– Ciechanów Subregion	339	324	-4.4%
– Ostrołęka Subregion	385	368	-4.4%
– Płock Subregion	327	311	-4.9%
– Radom Subregion	608	579	-4.8%
– Siedlce Subregion	419	402	-4.1%
– Żyrardów Subregion	259	255	-1.5%

Source: Urząd Statystyczny w Warszawie, *Region mazowiecki regionalny w 2019 r.*, Warszawa 2020, p. 116; Urząd Statystyczny w Warszawie, *Region mazowiecki regionalny w 2023 r.*, Warszawa 2024, p. 14.

The analysis of population numbers in the regions of Mazovia in 2019 and 2023 indicates an increase in the Warsaw Capital Region and a decrease in the Mazovian Regional Region – see Table 4. In the Warsaw Capital Region, the population consistently increased (a 6% rise in 2023 compared to 2019). This trend was also observed in all subregions within this region. In 2023, 59.4% of the population of Mazowieckie Voivodeship resided in the Warsaw Capital Region. Outside Warsaw, the highest population was recorded in the Western Warsaw Subregion (an increase of 10.3%). In the Mazovian Regional Region, the population declined by 4.2% over the analysed period. The largest decrease was observed in the Płock Subregion (4.9%) and the Radom Subregion (4.8%).

Population trends in the rural municipalities of Mazovia reflect the changes observed at the regional level. In 2023, compared to 2019, 27 rural municipalities in the Warsaw Capital Region recorded population growth (ranging from 0.6% in Osieck Municipality, Otwock Powiat, to 37.3% in Wieliszew Municipality, Legionowo Powiat), while a decline was recorded in six municipalities (from – 4.6% in Strachówka Municipality, Wołomin Powiat, to – 0.1% in Jakubów Municipality, Mińsk Mazowiecki Powiat). In the Mazovian Regional Region, population declined in 148 rural municipalities (ranging from – 16.5% in Ceranów Municipality, Sokołów Podlaski Powiat, to – 0.2% in Brudzeń Duży Municipality, Płock Powiat). In this group, 17 municipalities experienced a population decrease of over 10% in 2023. Table 5 presents the ten rural municipalities in each region of Mazovia that recorded the largest population increases and decreases in 2023 compared to 2019.

Table 5. Population change dynamics in rural municipalities of Mazovia in 2019 and 2023

No.	Municipality	Powiat	Population (persons)		Difference 2019/2023 (%)
			2019	2023	
Warsaw Capital Region					
1	Wieliszew	Legionowo	15,228	20,907	37.3%
2	Lesznowola	Piaseczno	28,500	38,479	35.0%
3	Nadarzyn	Pruszków	14,032	18,306	30.5%
4	Żabia Wola	Grodzisk Mazowiecki	8,985	11,096	23.5%
5	Wiązowna	Otwock	13,108	16,002	22.1%
6	Stare Babice	Western Warsaw	19,279	23,041	19.5%
7	Strachówka	Wołomin	2,720	2,594	-4.6%
8	Sobienie-Jeziory	Otwock	6,388	6,233	-2.4%
9	Dobre	Mińsk Mazowiecki	5,985	5,844	-2.4%
10	Celestynów	Otwock	11,732	11,648	-0.7%

Continued on the next page.

Table 5. Population change dynamics in rural municipalities of Mazovia in 2019 and 2023 (cont.)

No.	Municipality	Powiat	Population (persons)		Difference 2019/2023 (%)
			2019	2023	
Mazovian Regional Region					
1	Słupno	Płock	7,958	9,051	13.7%
2	Rzekuń	Ostrołęka	10,839	12,157	12.2%
3	Radziejowice	Żyrardów	5,855	6,455	10.2%
4	Sochaczew	Sochaczew	10,976	11,993	9.3%
5	Siedlce	Siedlce	18,406	19,657	6.8%
6	Płońsk	Płońsk	7,943	8,454	6.4%
7	Ceranów	Sokołów Podlaski	2,169	1,812	-16.5%
8	Sterdyń	Sokołów Podlaski	3,889	3,385	-13.0%
9	Przesmyki	Siedlce	3,169	2,767	-12.7%
10	Sarnaki	Łosice	4,645	4,091	-11.9%

Source: Own study based on Statistics Poland LDB, as at 31 December 2019 and 2023, <https://bdl.stat.gov.pl>, access 31.01.2025.

Demographic development types of municipalities and poviats in Mazovia

To examine the demographic potential of rural municipalities in Mazovia, data on natural population change and net migration for the years 2019 and 2023 were analysed. In order to classify a given municipality into a demographic development type and assess its current demographic situation, the Webb typology of demographic development was applied. To provide broader context for the research in this area, data on poviats within the regions of Mazovia were also analysed – see Table 6 and Table 7.

Table 6. Demographic development types of poviats in the Warsaw Capital Region according to Webb's method in 2019 and 2023

No.	Poviat	2019			2023		
		Type	Net migration per 1,000 population (NM) (persons)	Natural population change per 1,000 population (NPC) (persons)	Type	Net migration per 1,000 population (NM) (persons)	Natural population change per 1,000 population (NPC) (persons)
1	Grodzisk Mazowiecki	C	19.3	1.34	D	13.9	-1.86
2	Legionowo	C	15.4	1.19	D	13.9	-1.81
3	Mińsk Mazowiecki	C	3.8	0.69	D	4.4	-1.67
4	Nowy Dwór Mazowiecki	D	1.8	-0.64	E	1.9	-3.14
5	Otwock	C	3.2	0.23	D	4.6	-3.53
6	Piaseczno	C	15.4	2.81	C	13.7	0.15
7	Pruszków	C	8.8	1.16	D	10	-1.18
8	Western Warsaw	D	14.2	-0.43	D	16	-1.12
9	Wołomin	C	12.5	4.08	C	8.1	0.95

As at 31 December 2019 and 2023.

Source: BDL GUS, [https:// bdl.stat.gov.pl](https://bdl.stat.gov.pl), access 11.02.2025.

Based on Table 6, in both 2019 and 2023, all poviats in the Warsaw Capital Region were developmental (population-increasing) units. In 2019, seven poviats were classified as type C, in which natural increase is lower than positive net migration, and two poviats were classified as type D, in which positive net migration offsets natural decrease. In 2023, only two poviats in this group – Piaseczno and Wołomin – retained type C. The remaining five poviats – Grodzisk Mazowiecki, Legionowo, Mińsk Mazowiecki, Otwock, and Pruszków – were reclassified as type D. Western Warsaw Poviat retained type D throughout the study period, while Nowy Dwór Mazowiecki Poviat was classified as type E, where natural decrease is not offset by positive net migration.

In 2023, natural increase declined in all poviats of the Warsaw Capital Region compared to 2019. In seven of them, it shifted to natural decrease (from -1.12 in Western Warsaw Poviat to -3.53 in Otwock Poviat). In the two remaining poviats, where natural increase remained positive, it dropped significantly: by 94.6% (Piaseczno) and 76.7% (Wołomin). In both 2019 and 2023, the lowest net migration was recorded in Nowy Dwór Mazowiecki Poviat (1.8 and 1.9, respectively), and the highest in Grodzisk Mazowiecki Poviat (19.3 and 13.9, respectively).

Table 7. Demographic development types of poviats in the Mazovian Regional Region according to Webb's method in 2019 and 2023

No.	Powiat	2019			2023		
		Type	Net migration per 1,000 population (NM) (persons)	Natural population change per 1,000 population (NPC) (persons)	Type	Net migration per 1,000 population (NM) (persons)	Natural population change per 1,000 population (NPC) (persons)
1	Białobrzegi	H	-3.9	0.36	F	-1.4	-2.18
2	Ciechanów	G	-2.4	-1.22	F	-1.5	-4.06
3	Garwolin	H	-1.7	1.60	H	-1.6	0.68
4	Gostynin	F	-3.2	-3.75	F	-2.4	-6.50
5	Grójec	F	-0.1	-0.77	E	0.1	-3.54
6	Kozienice	G	-4.3	-3.27	F	-1.1	-4.79
7	Lipsko	G	-4.6	-4.50	F	-3.6	-5.74
8	Łosice	G	-4.8	-2.88	F	-5.2	-5.42
9	Maków Mazowiecki	G	-6.0	-2.04	F	-4.0	-5.56
10	Mława	G	-3.5	-2.21	F	-3.4	-3.95
11	Ostrołęka	H	-0.5	0.50	E	1.2	-1.79
12	Ostrów Mazowiecka	G	-5.2	-1.71	F	-3.1	-4.02
13	Płock	E	0.2	-1.06	E	1.2	-3.75
14	Płońsk	G	-2.5	-1.34	F	-0.2	-3.68
15	Przasnysz	G	-5.3	-0.70	G	-4.6	-2.66
16	Przysucha	F	-4.2	-4.60	F	-4.4	-6.20
17	Pułtusk	C	0.4	0.21	E	0.2	-4.28
18	Radom	A	-0.1	1.22	D	2.3	-1.75
19	Siedlce	H	-0.5	0.15	E	1.3	-1.71
20	Sierpc	G	-4.0	-1.52	G	-5.1	-4.44
21	Sochaczew	E	0.4	-1.21	E	0.5	-2.56
22	Sokołów Podlaski	G	-4.6	-3.39	F	-3.9	-6.59
23	Szydłowiec	G	-2.8	-2.67	F	-2.7	-5.26
24	Węgrów	G	-3.4	-1.36	F	-2.7	-3.44
25	Wyszków	B	0.3	1.43	E	1.5	-2.59
26	Zwoleń	G	-3.3	-2.15	F	-2.6	-4.13
27	Żuromin	G	-6.8	-3.02	G	-6.3	-4.93
28	Żyrardów	E	0.8	-2.35	E	1.4	-4.39

As at 31 December 2019 and 2023.

Source: BDL GUS, [https:// bdl.stat.gov.pl](https://bdl.stat.gov.pl), access 11.02.2025.

An analysis of the data in Table 7 shows that in 2019, out of the 28 poviats in the Mazovian Regional Region, only three qualified as developmental types: Radom Poviat (type A), Wyszaków Poviat (type B), and Pułtusk Poviat (type C). The remaining poviats were regressive (population-declining). The dominant group consisted of type G units (15 poviats), in which the population decline was more strongly driven by negative net migration than by natural decrease. Four poviats were classified as type H, where negative net migration is not offset by natural increase, and three poviats each were classified as type E (where natural decrease is not offset by positive net migration) and type F (where the population decline was driven more by natural decrease than by negative net migration). In 2023, only Radom Poviat remained in the group of developmental units, shifting from type A to type D. The largest group consisted of type F poviats (15 in total). The others were classified as follows: type E – 8 poviats, type G – 3 poviats, and type H – 1 poviat. The lowest net migration rate was recorded in both 2019 and 2023 in Żuromin Poviat (-6.8 and -6.3, respectively). The lowest natural increase was recorded in Przysucha Poviat in 2019 (-4.60) and in Sokołów Podlaski Poviat in 2023 (-6.59).

The results of the analysis of demographic development types for the rural municipalities included in the study indicate that in 2023, 66 municipalities were developmental, and 149 were regressive. The majority of developmental municipalities were classified as type D, while most regressive municipalities were classified as type F – see Table 8.

Table 8. Demographic development types of rural municipalities in Mazovia in 2023

Demographic type	Number of rural municipalities, including:		
	total	Warsaw Capital Region	Mazovian Regional Region
A	2	0	2
B	2	0	2
C	20	10	10
D	42	16	26
E	23	2	21
F	62	2	60
G	55	2	53
H	9	1	8
Total	215	33	182

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 11.02.2025.

In the Warsaw Capital Region, 26 municipalities were developmental, and 7 were regressive. The developmental municipalities were located mainly in the vicinity of Warsaw, whose development potential influences their demographic situation. Among

the demographically active municipalities, the most frequently represented were type D (16 municipalities) and type C (10 municipalities) – see Table 9.

Table 9. Demographic development types of rural municipalities in the Warsaw Capital Region in 2023

Powiat	Demographic type								Total number of municipalities
	A	B	C	D	E	F	G	H	
Grodzisk Mazowiecki	0	0	0	2	0	0	1	0	3
Legionowo	0	0	2	1	0	0	0	0	3
Mińsk Mazowiecki	0	0	2	3	0	0	0	1	6
Nowy Dwór Mazowiecki	0	0	0	2	1	0	0	0	3
Otwock	0	0	1	1	1	2	0	0	5
Piaseczno	0	0	1	1	0	0	0	0	2
Pruszków	0	0	2	1	0	0	0	0	3
Western Warsaw	0	0	0	4	0	0	0	0	4
Wołomin	0	0	2	1	0	0	1	0	4
Total	0	0	10	16	2	2	2	1	33

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 11.02.2025.

All rural municipalities in four poviats – Legionowo, Piaseczno, Pruszków, and Western Warsaw – were classified as developmental. In four other poviats, where the majority of municipalities were developmental, there were also regressive municipalities: Baranów Municipality – type G (Grodzisk Mazowiecki Powiat), Jakubów Municipality – type H (Mińsk Mazowiecki Powiat), Pomiechówek Municipality – type E (Nowy Dwór Mazowiecki Powiat), and Strachówka Municipality – type G (Wołomin Powiat). In Otwock Powiat, regressive municipalities were in the majority: Celestynów – type E, and two municipalities of type F: Kołbiel and Sobienie-Jeziory.

The highest net migration rate per 1,000 population in the region in 2023 was recorded in: Lesznowola Municipality, Piaseczno Powiat (37.8), Wieliszew Municipality, Legionowo Powiat (32.9), Nadarzyn Municipality, Pruszków Powiat (31.2). The lowest net migration rates were recorded in: Baranów Municipality, Grodzisk Mazowiecki Powiat (-23.5), Strachówka Municipality, Wołomin Powiat (-5.4), Sobienie-Jeziory Municipality, Otwock Powiat (-2.2). The highest natural increase per 1,000 residents was observed in: Lesznowola Municipality, Piaseczno Powiat (8.32), Dąbrówka Municipality, Wołomin Powiat (1.40), Nadarzyn Municipality, Pruszków Powiat (1.33). The lowest natural increase (i.e. natural decrease) was recorded in: Pomiechówek Municipality, Nowy Dwór Mazowiecki Powiat (-6.57), Leszno Municipality (-4.45) and Izabelin Municipality (-4.44), both in Western Warsaw Powiat.

The situation in terms of demographic development types was different in the rural municipalities of the Mazovian Regional Region. Out of 182 municipalities included in the study, only 40 were developmental (21.9% of all municipalities). The remaining 142 municipalities (79.1%) were regressive – see Table 10.

Table 10. Demographic types of rural municipalities in the Mazovian Regional Region in 2023

Powiat	Demographic type								Total number of municipalities
	A	B	C	D	E	F	G	H	
Białobrzegi	1	0	0	0	1	1	0	1	4
Ciechanów	0	0	1	1	0	2	3	0	7
Garwolin	0	0	1	1	0	3	3	2	10
Gostynin	0	0	0	0	3	0	0	0	3
Grójec	0	0	0	3	0	2	1	0	6
Kozienice	0	0	0	1	3	2	0	0	6
Lipsko	0	0	0	0	2	2	0	0	4
Łosice	0	0	0	0	0	3	2	0	5
Maków Mazowiecki	0	0	0	1	1	4	2	0	8
Mława	0	0	0	0	1	3	5	0	9
Ostrołęka	0	1	1	1	1	2	2	2	10
Ostrów Mazowiecka	0	0	0	0	1	6	1	1	9
Płock	0	0	1	3	2	2	3	0	11
Płońsk	0	0	0	2	0	4	1	0	7
Przasnysz	0	0	0	0	0	0	4	1	5
Przysucha	0	0	0	0	1	2	4	0	7
Pułtusk	0	0	0	2	2	1	1	0	6
Radom	0	1	3	2	0	2	1	0	9
Siedlce	1	0	1	3	1	3	2	1	12
Sierpc	0	0	0	0	1	1	4	0	6
Sochaczew	0	0	2	2	1	0	2	0	7
Sokołów Podlaski	0	0	0	0	0	5	2	0	7
Szydłowiec	0	0	0	0	0	2	1	0	3
Węgrów	0	0	0	0	1	3	3	0	7
Wyszków	0	0	0	2	1	1	1	0	5
Zwoleń	0	0	0	0	0	2	2	0	4
Żuromin	0	0	0	0	0	2	1	0	3
Żyrardów	0	0	0	2	0	0	0	0	2
Total	2	2	10	26	23	60	51	8	182

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 11.02.2025.

In 2023, the dominant demographic types among municipalities in the Mazovian Regional Region were type F (60 municipalities) and type G (51 municipalities). In both type F and G municipalities, the demographic situation is the least favourable, as they experience both natural decrease and negative net migration. Most of these municipalities are located in peripheral areas of the region. All rural municipalities in 13 out of the 28 poviats were classified as regressive. Municipalities situated near cities – such as Radom and Siedlce – and within their functional zones were classified as developmental. These included municipalities in Radom Powiat (Jastrzębia – type B; Gózd, Kowala, Zakrzew – type C; Jedlińsk, Wolanów – type D) and municipalities in Siedlce Powiat (Wiśniew – type A; Skórzec – type C; Kotuń, Siedlce, and Suchożębry – type D). In Żyrardów Powiat, the rural municipalities of Radziejowice and Puszcza Mariańska were also classified as developmental, both of type D.

The highest net migration rate per 1,000 population in the region in 2023 was recorded in: Rzekuń Municipality, Ostrołęka Powiat (17.8); Joniec Municipality, Płońsk Powiat (15.9), and Radziejowice Municipality, Żyrardów Powiat (12.7). The lowest net migration rates were recorded in: Wierzbno Municipality, Węgrów Powiat (-16.3); Ceranów Municipality, Sokołów Podlaski Powiat (-14.8), and Radzanów Municipality, Mława Powiat (-13.9). The highest natural increase per 1,000 residents in the region was observed in: Wiśniew Municipality, Siedlce Powiat (4.89), Gózd Municipality, Radom Powiat (3.20), and Górzno Municipality, Garwolin Powiat (3.14). The lowest was recorded in: Nur Municipality, Ostrów Mazowiecka Powiat (-20.02); Pacyna Municipality, Gostynin Powiat (-16.56), and Jabłonna Lacka Municipality, Sokołów Podlaski Powiat (-15.56).

The results of selected social indicators show a consistent trend of adverse demographic phenomena in rural municipalities in the Mazovian Regional Region. This primarily concerns municipalities located in peripheral areas. According to forecasts by Statistics Poland, by 2040, the population of the entire Mazowieckie Voivodeship is expected to decrease by 0.9% compared to the current level²⁷. In 2030, population growth is projected in 140 rural municipalities, including: 116 municipalities in the Mazovian Regional Region (63.7% of all rural municipalities), and 24 municipalities in the Warsaw Capital Region (72.7% of all rural municipalities in that region). In 43 rural municipalities in total, population growth above 5% is expected, and in only one of them – Dąbrówka Municipality (Wołomin Powiat) – an increase of 11.1% is forecast. By contrast, in 2030, a population decline is forecast in 75 rural municipalities of Mazovia, including a decline of more than 5% in 11 municipalities. Within

27. Urząd Statystyczny w Warszawie, *Procesy demograficzne w województwie mazowieckim w latach 2000–2021 oraz w perspektywie do 2040 r.*, Warszawa 2022, p. 15.

this group: 66 municipalities are located in the Mazovian Regional Region, and 9 in the Warsaw Capital Region. The largest population decline in a rural municipality in the Mazovian Regional Region is expected in Nur Municipality, Ostrów Mazowiecka Poviát (-9.4%). In the Warsaw Capital Region, the sharpest projected decline is in Wieliszew Municipality, Legionowo Poviát (-17.9%).

Economic area

In the 2030 Agenda, actions in the economic area are highlighted in Goal 8: Decent Work and Economic Growth ("Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all"), and further detailed in specific targets such as: 8.1: "Sustain per capita economic growth in accordance with national circumstances" and 8.5: "By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value"²⁸. The Sustainable Development Report presents an assessment of the implementation of the Sustainable Development Goals and outlines priorities for individual countries²⁹. The priorities for Poland in 2023 and 2024 within Goal 8 include: "Increasing the employment rate; professional activation of young people, women, people aged 50+, the long-term unemployed, as well as persons with disabilities" and "Improving the reallocation of underutilised labour resources from agriculture to other sectors"³⁰. With these goals and priorities in mind, selected indicators in the economic area were analysed. The study examined changes in municipal budgets between 2019 and 2023 (municipal budget revenue and expenditure per capita), as well as the number of employed persons in the national economy by economic sector and place of residence, and the number of registered unemployed persons.

Municipal budget revenue per capita

An analysis of the changes in revenue per capita in the municipalities covered by the survey indicates that, in 2023 compared to 2019, revenues increased in 210 municipalities (97.7%), while a decrease was noted in only five municipalities (2.3%).

28. Kampania 17 celów, <https://kampania17celow.pl/cel-8-wzrost-gospodarczy-i-godna-praca/>, access 5.02.2025.

29. J.D. Sachs, G. Lafortune, G. Fuller, *Sustainable Development Report 2024. The SDGs and the UN Summit of the Future Includes the SDG Index and Dashboards*, Dublin University Press Dublin, Ireland 2024, DOI 10.25546/108572, <https://dashboards.sdgindex.org/profiles/poland>, access 5.02.2025.

30. Kampania 17 celów, <https://kampania17celow.pl/cel-8-wzrost-gospodarczy-i-godna-praca/>, access 5.02.2025.

In the Warsaw Capital Region, a decrease in revenue was recorded in three municipalities (out of 33 in total), and in two municipalities (out of 182) in the Mazovian Regional Region. The largest increase in revenue per capita was recorded in Ceranów Municipality, Sokołów Podlaski Powiat (+245.5%), while the largest decrease was observed in Długosiodło Municipality, Wyszaków Powiat (-10.7%).

Table 11 and Table 12 present data for 20 selected rural municipalities in both regions of Mazovia where the highest increases and decreases in municipal revenue per capita were recorded in 2023 compared to 2019.

Table 11. Revenue per capita in selected rural municipalities in the Warsaw Capital Region in 2019 and 2023

No.	Municipality	Powiat	Revenue per capita (PLN)		Difference 2019/2023 (%)
			2019	2023	
1	Osieck	Otwock	5,604.59	10,953.88	95.4%
2	Poświętne	Wołomin	5,030.56	8,454.66	68.1%
3	Baranów	Grodzisk Mazowiecki	5,214.82	7,837.68	50.3%
4	Strachówka	Wołomin	6,044.33	8,990.97	48.8%
5	Sobienie-Jeziory	Otwock	4,365.10	6,399.82	46.6%
6	Leoncin	Nowy Dwór Mazowiecki	5,434.11	7,453.51	37.2%
7	Dobre	Mińsk Mazowiecki	5,503.30	7,505.28	36.4%
8	Leszno	Western Warsaw	6,145.52	8,366.57	36.1%
9	Czosnów	Nowy Dwór Mazowiecki	6,809.34	9,116.07	33.9%
10	Jakubów	Mińsk Mazowiecki	5,554.27	7,366.39	32.6%
11	Lesznówola	Piaseczno	8,886.29	10,122.23	13.9%
12	Wiązowna	Otwock	7,966.46	8,845.11	11.0%
13	Żabia Wola	Grodzisk Mazowiecki	7,218.20	7,909.51	9.6%
14	Mińsk Mazowiecki	Mińsk Mazowiecki	5,128.65	5,570.57	8.6%
15	Jaktorów	Grodzisk Mazowiecki	8,022.90	8,222.93	2.5%
16	Kampinos	Western Warsaw	7,476.87	7,535.91	0.8%
17	Nadarzyn	Pruszków	9,760.36	9,804.06	0.4%
18	Wieliszew	Legionowo	6,631.52	6,583.21	-0.7%
19	Nieporęt	Legionowo	7,665.80	7,339.80	-4.3%
20	Jabłonna	Legionowo	6,731.10	6,268.64	-6.9%

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025.

In 2023, an increase of over 50% in revenue per capita (compared to 2019) was recorded in the following municipalities: Osieck, Otwock Powiat; Poświętne, Wołomin Powiat; and Baranów, Grodzisk Mazowiecki Powiat. In contrast, a decline in revenue per capita during the study period was recorded in all municipalities in Legionowo Powiat – Wieliszew, Nieporęt, and Jabłonna.

Table 12. Revenue per capita in selected rural municipalities in the Mazovian Regional Region in 2019 and 2023

No.	Municipality	Powiat	Revenue per capita (PLN)		Difference 2019/2023 (%)
			2019	2023	
1	Ceranów	Sokołów Podlaski	4,289.53	14,821.44	245.5%
2	Wierzbno	Węgrów	5,113.00	14,244.33	178.6%
3	Paprotnia	Siedlce	5,203.71	13,600.89	161.4%
4	Sabnie	Sokołów Podlaski	4,435.23	10,365.52	133.7%
5	Sarnaki	Łosice	4,962.56	11,453.61	130.8%
6	Rzewnie	Maków Mazowiecki	5,207.06	11,364.05	118.2%
7	Korczew	Siedlce	5,080.58	10,962.57	115.8%
8	Szulborze Wielkie	Ostrów Mazowiecka	5,575.83	12,019.12	115.6%
9	Sypniewo	Maków Mazowiecki	5,027.53	10,810.57	115.0%
10	Nur	Ostrów Mazowiecka	4,972.74	10,549.20	112.1%
11	Małkinia Górna	Ostrów Mazowiecka	5,078.41	5,457.87	7.5%
12	Chynów	Grójec	5,520.79	5,893.57	6.8%
13	Orońsko	Szydłowiec	4,893.97	5,150.99	5.3%
14	Magnuszew	Kozienice	5,517.99	5,786.35	4.9%
15	Nowy Duninów	Płock	5,156.78	5,353.70	3.8%
16	Sochaczew	Sochaczew	5,896.92	6,091.74	3.3%
17	Rzekuń	Ostrołęcki	4,475.31	4,600.63	2.8%
18	Olszewo-Borki	Ostrołęcki	5,737.41	5,889.52	2.7%
19	Garwolin	Garwolin	5,220.50	5,178.46	-0.8%
20	Długosiodło	Wyszaków	6,327.72	5,650.86	-10.7%

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025.

An increase in per capita income exceeding 100% was recorded in 10 municipalities of the Mazovian Regional Region, while an increase below 1% was noted in 8 municipalities. A decrease in per capita income was observed only in 2 rural

municipalities of this region (by 10.7% in the municipality of Długosiodło, Wyszaków Poviát, and by 0.8% in the municipality of Garwolin, Garwolin Poviát).

Municipal budget expenditure per capita

An analysis of the changes in per capita expenditure in the rural municipalities covered by the survey indicates that, in 2023 compared to 2019, expenditure increased in 211 municipalities (98.1%), while a decrease was noted in only four municipalities (1.9%). The largest increase in per capita expenditure was recorded in the municipality of Cerańów, Sokołów Poviát, and the largest decrease – in the municipality of Lesznowola, Piaseczno Poviát.

A decrease in per capita expenditure was recorded in two rural municipalities in the Warsaw Capital Region (out of a total of 33) and in two municipalities (out of a total of 182) in the Mazovian Regional Region. In 2023, all rural municipalities in seven poviats of the Warsaw Capital Region recorded an increase in per capita expenditure, while a decrease was noted in two poviats: Legionowo Poviát (the municipality of Jabłonna) and Piaseczno Poviát (the municipality of Lesznowola). In the Mazovian Regional Region, in turn, an increase in per capita expenditure was observed in 2023 in all rural municipalities in 26 poviats, while a decrease was recorded in two poviats: Ostrów Poviát (the municipality of Małkinia Górna) and Wyszaków Poviát (the municipality of Długosiodło). Table 13 and Table 14 present data for 20 selected rural municipalities in each region of Mazovia, where the highest increases and decreases in per capita expenditure were observed in 2023 compared to 2019.

Table 13. Expenditure per capita in selected rural municipalities in the Warsaw Capital Region in 2019 and 2023

No.	Municipality	Poviát	Expenditure per capita (PLN)		Difference 2019/2023 (%)
			2019	2023	
1	Sobienie-Jeziory	Otwock	4,258.95	7,711.35	81.1%
2	Poświętne	Wołomin	4,800.80	8,597.63	79.1%
3	Leoncin	Nowy Dwór Mazowiecki	5,315.13	9,265.17	74.3%
4	Osieck	Otwock	6,246.18	10,311.15	65.1%
5	Leszno	Western Warsaw	5,863.73	9,436.88	60.9%
6	Strachówka	Wołomin	6,346.42	10,208.13	60.8%
7	Izabelin	Western Warsaw	6,691.71	10,524.40	57.3%
8	Czosnów	Nowy Dwór Mazowiecki	6,711.41	10,084.99	50.3%

Continued on the next page.

Table 13. Expenditure per capita in selected rural municipalities in the Warsaw Capital Region in 2019 and 2023 (cont.)

No.	Municipality	Powiat	Expenditure per capita (PLN)		Difference 2019/2023 (%)
			2019	2023	
9	Dobre	Mińsk Mazowiecki	5,375.96	8,023.14	49.2%
10	Celestynów	Otwock	5,116.83	7,467.30	45.9%
11	Dąbrówka	Wołomin	5,707.65	7,130.51	24.9%
12	Pomiechówek	Nowy Dwór Mazowiecki	7,915.23	9,741.47	23.1%
13	Dębe Wielkie	Mińsk Mazowiecki	5,179.65	6,230.15	20.3%
14	Kampanos	Western Warsaw	7,015.90	8,151.41	16.2%
15	Nieporęt	Legionowo	7,406.69	8,412.71	13.6%
16	Wieliszew	Legionowo	6,742.35	7,598.26	12.7%
17	Nadarzyn	Pruszków	9,613.84	10,237.30	6.5%
18	Jaktorów	Grodzisk Mazowiecki	8,040.03	8,437.92	4.9%
19	Jabłonna	Legionowo	7,900.88	7,644.75	-3.2%
20	Lesznów	Piaseczno	10,701.34	9,707.38	-9.3%

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025.

In 2023, an increase in per capita expenditure exceeding 50% (compared to 2019) was recorded in eight municipalities: two municipalities each in Otwock Powiat (Osieck and Sobienie-Jeziory), Nowy Dwór Mazowiecki Powiat (Czosnów and Leonicin), Western Warsaw Powiat (Izabelin and Leszno), and Wołomin Powiat (Poświętne and Strachówka). A decrease in per capita expenditure over the analysed years was noted in the municipality of Jabłonna, Legionowo Powiat, and in the municipality of Lesznów, Piaseczno Powiat.

Table 14. Expenditure per capita in selected rural municipalities in the Mazovian Regional Region in 2019 and 2023

No.	Municipality	Powiat	Expenditure per capita (PLN)		Difference 2019/2023 (%)
			2019	2023	
1	Ceranów	Sokołów Podlaski	4,142.53	16,511.07	298.6%
2	Wierzbno	Węgrów	5,443.66	14,846.05	172.7%
3	Paprotnia	Siedlce	5,275.22	13,712.07	159.9%
4	Borkowice	Przysucha	4,607.73	11,581.73	151.4%
5	Boguty-Pianki	Ostrów Mazowiecka	4,625.39	11,581.73	150.4%

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Table 14. Expenditure per capita in selected rural municipalities in the Mazovian Regional Region in 2019 and 2023 (cont.)

No.	Municipality	Powiat	Expenditure per capita (PLN)		Difference 2019/2023 (%)
			2019	2023	
6	Sabnie	Sokołów Podlaski	4,301.44	10,527.41	144.7%
7	Rybno	Sochaczew	5,111.61	12,482.37	144.2%
8	Nur	Ostrów Mazowiecka	4,132.84	10,079.12	143.9%
9	Sarnaki	Łosice	5,103.68	12,315.81	141.3%
10	Sypniewo	Maków	4,842.63	11,626.22	140.1%
11	Gózd	Radom	5,301.90	5,997.54	13.1%
12	Suchożebry	Siedlce	5,415.09	6,106.67	12.8%
13	Baranowo	Ostrołęcki	5,361.02	5,979.64	11.5%
14	Brochów	Sochaczew	5,716.15	6,321.73	10.6%
15	Sochaczew	Sochaczew	5,722.51	6,320.95	10.5%
16	Radziejowice	Żyrardów	8,131.99	8,802.22	8.2%
17	Garwolin	Garwolin	5,119.90	5,477.05	7.0%
18	Rzekuń	Ostrołęcki	5,284.83	5,648.54	6.9%
19	Długosiodło	Wyszków	7,028.28	6,569.88	-6.5%
20	Małkinia Górna	Ostrów Mazowiecka	5,852.14	5,392.79	-7.8%

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025.

In the Mazovian Regional Region, in 2023 (compared to 2019), an increase in per capita expenditure of nearly 300% was recorded in the municipality of Czeranów, Sokołów Powiat, over 150% in five municipalities, and over 100% in 13 municipalities. A decrease was observed in only two rural municipalities in this region: Długosiodło, Wyszków Powiat (by 6.5%) and Małkinia Górna, Ostrów Mazowiecka Powiat (by 7.8%).

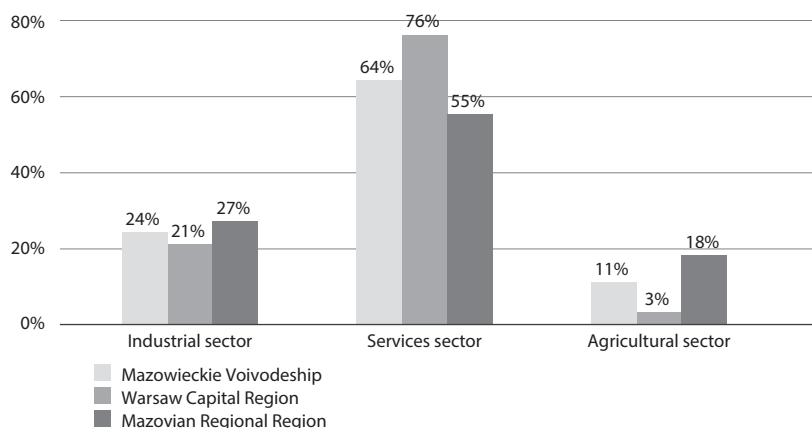
Employed persons

The number of persons employed in the national economy by actual place of work in 2019 amounted to 2.7 million (17.1% of those employed in the country) – 67.5% of them worked in the Warsaw Capital Region, and 32.5% in the Mazovian Regional Region³¹. In 2023 in the Warsaw Capital Region, the vast majority of those employed

31. Mazowieckie Biuro Planowania Regionalnego w Warszawie, *Diagnoza sytuacji społeczno-gospodarczej województwa mazowieckiego do Strategii Rozwoju Województwa Mazowieckiego 2030+ Innowacyjne Mazowsze*, Warszawa, 24.08.2021, p. 37.

in the national economy³² worked in the services sector (76% of the total employed in the three sectors), and 55% in the Mazovian Regional Region. The smallest share of the employed in both regions was observed in the agricultural sector – 3% of the total employed in the three sectors in the Warsaw Capital Region, and 18% in the Mazovian Regional Region – see Figure 1.

Figure 1. Employed persons in the national economy by economic sectors and place of residence in 2023



Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025.

A similar situation can be observed in the different sectors within the rural municipalities of Mazovia. Across all municipalities included in the survey, the proportion of persons employed in the agricultural sector exceeded 50% in only 10 municipalities (all located in the Mazovian Regional Region). The highest share of persons employed in this sector was recorded in the municipality of Boguty-Pianki, Ostrów Mazowiecka Powiat (61%), and in the municipality of Czarnia, Ostrołęka Powiat (58%). The lowest share of persons employed in the agricultural sector – less than 10% of the total employment – was noted in 35 municipalities, of which 24 are located in the Warsaw Capital Region, and 11 in the Mazovian Regional Region. In the municipality of Izabelin, Western Warsaw Powiat, only 1% are employed in the agricultural sector, and 2% each in the municipalities of Jabłonna (Legionowo Powiat), Michałowice and Nadarzyn (Pruszków Powiat), and Wieliszew (Legionowo Powiat).

32. Employed persons in the national economy by economic sectors and place of residence.

The differences in the number of employed persons in the municipalities covered by the survey confirm the attractiveness of the labour market, primarily in areas adjacent to Warsaw. In the Warsaw Capital Region, workers find employment in the services and industrial sectors. At the same time, in the rural municipalities of this region, the number of people employed in agriculture is significantly lower than in rural municipalities in peripheral areas.

Unemployed persons

In December 2023, there were 110.5 thousand registered unemployed persons in Mazowieckie Voivodeship, including 50.9 thousand residing in rural areas³³. In connection with the priority of Sustainable Development Goal 8 concerning the activation of long-term unemployed, an analysis was carried out of the indicator of registered unemployment in rural municipalities of Mazovia. The results indicate that in 2023, compared to 2019, the number of registered unemployed decreased in 162 municipalities under study, increased in 47, and remained unchanged in six. The highest decreases and increases in unemployment were recorded in the Mazovian Regional Region: an increase in two municipalities of Sochaczew Powiat, Iłów and Brochów (58% each), and the largest increase in two municipalities of Grójec Powiat, Jasieniec (83%) and Belsk Duży (76%) – see Table 15. The dynamics of change in the number of registered unemployed persons show that in the Warsaw Capital Region, the largest decrease occurred in the municipality of Izabelin, Western Warsaw Powiat, and the largest increase in the municipality of Jaktorów, Grodzisk Mazowiecki Powiat – see Table 16.

Table 15. Unemployed registered in rural municipalities in the Mazovian Regional Region in 2019 and 2023

Municipality	Powiat	Registered unemployed (persons)		Difference 2019/ 2023 (%)
		2019	2023	
Brochów	Sochaczew	113	47	58%
Iłów	Sochaczew	133	56	58%
Rybno	Sochaczew	48	21	56%
Sochaczew	Sochaczew	218	102	53%
Młodzieszyn	Sochaczew	92	49	47%

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33. Urząd Statystyczny w Warszawie, *Rynek pracy w województwie mazowieckim w 2023 r.*, Warszawa 2024, tab. 1(14).

Table 15. Unemployed registered in rural municipalities in the Mazovian Regional Region in 2019 and 2023 (cont.)

Municipality	Powiat	Registered unemployed (persons)		Difference 2019/ 2023 (%)
		2019	2023	
Rząśnik	Wyszaków	79	107	-35%
Raciąż	Płońsk	188	281	-49%
Goszczyn	Grójec	25	43	-72%
Belsk Duży	Grójec	37	65	-76%
Jasieniec	Grójec	36	66	-83%

As at the end of December 2019 and 2023.

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025.

Table 16. Unemployed registered in rural municipalities in the Warsaw Capital Region in 2019 and 2023

Municipality	Powiat	Registered unemployed (persons)		Difference 2019/ 2023 (%)
		2019	2023	
Izabelin	Western Warsaw	133	105	21%
Wieliszew	Legionowo	309	253	18%
Siennica	Mińsk Mazowiecki	117	97	17%
Osieck	Otwock	66	55	17%
Michałowice	Pruszków	195	164	16%
Wiązowna	Otwock	164	138	16%
Dębe Wielkie	Mińsk Mazowiecki	158	189	-20%
Żabia Wola	Grodzisk Mazowiecki	82	105	-28%
Leoncin	Nowy Dwór Mazowiecki	103	138	-34%
Strachówka	Wołomin	66	92	-39%
Jaktorów	Grodzisk Mazowiecki	108	156	-44%

As at the end of December 2019 and 2023.

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025.

Environmental area

The natural environment is a public good that benefits everyone. However, the costs associated with ensuring an appropriate level of protection for this good are borne, among others, by local communities and authorities. This view was the source of the idea to introduce a form of financial compensation for local government units in the form of an ecological subsidy. As indicated by J. Pawłowska-Tyszko, M. Pawłowski, and G. Konat, the environment requires appropriate protection instruments (administrative-legal and economic) as well as a financing system³⁴.

In 2023, legally protected areas in Mazowieckie Voivodeship covered 1,055.2 thousand hectares, representing 29.7% of the voivodeship's area. These included: one national park (Kampinos National Park), 189 nature reserves, nine landscape parks (of which five are located entirely within the voivodeship), 29 landscape conservation areas, six documentation sites, 908 organic areas, 37 nature and landscape complexes, 4,032 natural monuments³⁵, and 82 Natura 2000 sites (including 16 special protection areas for birds, 65 special areas of conservation or sites of Community importance, i.e. future special areas of conservation, and one area protected under both the Birds Directive and the Habitats Directive – the Kampinos Forest)³⁶. Legally protected areas accounted for 43.5% of the Warsaw Capital Region's area and 26.9% of the Mazovian Regional Region's area³⁷.

The Planet aspect in the 2030 Agenda encompasses actions in the broadly understood environmental field, as specified in Goal 15: Life on land ("Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss"). This goal is further detailed, among others, in: 5.5 ("Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species"); 15.a ("Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems"); and 15.2 ("By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation

34. J. Pawłowska-Tyszko, M. Pawłowski, G. Konat, *Instrumenty ochrony środowiska w polskim rolnictwie w kontekście jego zrównoważonego rozwoju*, Instytut Ekonomiki Rolnictwa i Gospodarki Żywnościowej – Państwowy Instytut Badawczy, Warszawa 2018, p. 41.

35. GUS, *Ochrona środowiska 2024*, Warszawa 2024, table 3(168).

36. Centralny Rejestr Form Ochrony Przyrody, <https://crfop.gdos.gov.pl/>, access 14.02.2025.

37. Mazowieckie Biuro Planowania Regionalnego w Warszawie, *Strategia rozwoju województwa mazowieckiego* ..., op. cit., p. 28.

globally”). Priorities for Poland under Goal 15 include, among others, “Protection and improvement of environmental quality through the protection of biodiversity, including area-based forms of nature conservation, waste management systems, improvement of water quality, and water purity protection”³⁸.

In line with the above goals and sustainable development priorities, selected data concerning the surveyed rural municipalities of Mazovia were analysed, i.e. the area of legally protected zones, the dynamics of change in forest coverage in 2019 and 2023, as well as planned amounts of ecological subsidy for municipalities. This form of financial support applies exclusively to municipalities with designated protected areas.

Protected areas coverage

The surface area of protected zones in the rural municipalities of Mazovia included in the survey were analysed based on data from the Annex to the Regulatory Impact Assessment (OSR)³⁹. These data formed the basis for calculating the planned amounts of ecological subsidy in 2025. A total of 39 municipalities, in which no protected areas have been designated (one municipality in the Warsaw Capital Region and 38 municipalities in the Mazovian Regional Region), will not benefit from this type of support. In 2025, the ecological subsidy will not be granted to: the municipality of Baranów, Grodzisk Poviát; four municipalities in Radom Poviát (Jedlińsk, Przytyk, Wolanów, Zakrzew); and three municipalities each in the following poviats: Garwolin Poviát (Borowie, Górzno, and Miastków Kościelny), Lipsko Poviát (Ciepielów, Rzecznów, and Siemno), Maków Poviát (Czerwonka, Płoniawy-Bramura, Sypniewo), Ostrow Mazowiecka Poviát (Andrzejewo, Boguty-Pianki, Szulborze Wielkie), Plock Poviát (Bielsk, Bulkowo, Starożreby), Przasnysz Poviát (Krasne, Krzynowłoga Mała, Przasnysz), and Sochaczew Poviát (Teresin, Nowa Sucha, Rybno). The remaining municipalities are: Goszczyn and Jasieniec (Grójec Poviát), Huszlew and Stara Kornica (Łosice Poviát), Czerwin and Troszyn (Ostrołęka Poviát), Gołymín (Ciechanów Poviát), Dzierżążnia (Płońsk Poviát), Wieniawa (Przysucha Poviát), Świercze (Pułtusk Poviát), Gozdowo (Sierpc Poviát), Orońsko (Szydłowiec Poviát), and Kazanów (Zwoleń Poviát).

Table 17 and Table 18 present 20 municipalities from each region of Mazovia, including 10 municipalities with the largest share of protected areas in the total surface area of the municipality, and 10 with the smallest share.

38. *Kampania 17 celów*, <https://kampania17celow.pl/cel-15-zycie-na-ladzie/>, access 5.02.2025.

39. Annex to the Regulatory Impact Assessment (OSR) 15.07.2024, *Rządowy projekt ustawy o dochodach jednostek samorządu terytorialnego*, <https://www.gov.pl/web/finanse/ministerstwo-finansow-zaprezentowalo-projekt-nowej-ustawy-o-dochodach-jednostek-samorządu-terytorialnego>, access 17.09.2024.

Table 17. Protected areas coverage in rural municipalities in the Warsaw Capital Region

No.	Municipality	Powiat	Coverage (hectare)		Share of protected areas coverage in total surface area (%)
			total	protected areas	
1	Czosnów	Nowy Dwór Mazowiecki	12,845	12,829.2	99.9%
2	Sobienie-Jeziory	Otwock	9,768	9,698.2	99.3%
3	Celestynów	Otwock	8,892	8,432.8	94.8%
4	Nieporęt	Legionowo	9,606	8,881.4	92.5%
5	Osieck	Otwock	6,797	5,897.8	86.8%
6	Izabelin	Western Warsaw	6,501	5,582.7	85.9%
7	Pomieczówek	Nowy Dwór Mazowiecki	10,268	8,445.4	82.2%
8	Kołbiel	Otwock	10,650	8,419.1	79.1%
9	Leoncin	Nowy Dwór Mazowiecki	15,799	11,449.4	72.5%
10	Wiązowna	Otwock	10,212	7,260.0	71.1%
11	Lesznowola	Piaseczno	6,930	1,661.0	24.0%
12	Dąbrówka	Wołomin	10,914	2,440.1	22.4%
13	Dębe Wielkie	Mińsk Mazowiecki	7,773	1,011.3	13.0%
14	Jakubów	Mińsk Mazowiecki	8,698	343.7	4.0%
15	Żabia Wola	Grodzisk Mazowiecki	10,542	347.4	3.3%
16	Klembów	Wołomin	8,571	53.4	0.6%
17	Stanisławów	Mińsk Mazowiecki	10,627	30.5	0.3%
18	Strachówka	Wołomin	10,776	23.4	0.2%
19	Dobre	Mińsk Mazowiecki	12,491	6.8	0.1%
20	Poświętne	Wołomin	10,402	0.5	0.004%

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025; Annex to the Regulatory Impact Assessment (OSR) 15.07.2024, Rządowy projekt ustawy o dochodach jednostek samorządu terytorialnego, <https://www.gov.pl/web/finanse/ministerstwo-finansow-zaprezentowalo-projekt-nowej-ustawy-o-dochodach-jednostek-samorządu-terytorialnego>, access 17.09.2024.

Among the 32 rural municipalities included in the survey in the Warsaw Capital Region, protected areas cover between less than 1% and 99.9% of the total area of a municipality – see Table 17. Among the municipalities with the smallest area of protected zones in the region are three municipalities in Wołomin Powiat (Klembów, Stanisławów, and Poświętne) and two municipalities in Mińsk Powiat (Strachówka and Dobre).

Table 18. Protected areas coverage in rural municipalities in the Mazovian Regional Region

No.	Municipality	Powiat	Coverage (hectare)		Share of protected areas coverage in total surface area (%)
			total	protected areas	
1	Sadowne	Węgrów	14,474	14,466.7	99.9%
2	Maciejowice	Garwolin	17,359	17,348.0	99.9%
3	Pionki	Radom	22,972	22,956.2	99.9%
4	Wilga	Garwolin	11,886	11,877.8	99.9%
5	Odrzywół	Przysucha	9,919	9,907.4	99.9%
6	Siemiątkowo	Żuromin	11,339	11,324.3	99.9%
7	Lutocin	Żuromin	12,645	12,624.1	99.8%
8	Garbatka-Letnisko	Kozienice	7,383	7,359.5	99.7%
9	Lipowiec Kościelny	Mława	11,446	10,897.0	95.2%
10	Strzegowo	Mława	21,421	20,366.4	95.1%
11	Zaręby Kościelne	Ostrów Mazowiecka	8,882	312.6	3.5%
12	Sońsk	Ciechanów	15,472	392.2	2.5%
13	Wierzbno	Węgrów	10,320	188.6	1.8%
14	Krasnosielc	Maków	16,714	40.9	0.2%
15	Paprotnia	Siedlce	8,142	7.2	0.1%
16	Błędów	Grójec	13,406	6.5	0.05%
17	Tczów	Zwoleń	7,215	2.2	0.03%
18	Potworów	Przysucha	8,238	0.1	0.001%
19	Sochaczew	Sochaczew	9,138	0.1	0.001%
20	Chynów	Grójec	13,500	0.1	0.0004%

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025; Annex to the Regularatory Impact Assessment (OSR) 15.07.2024, Rządowy projekt ustawy o dochodach jednostek samorządu terytorialnego, <https://www.gov.pl/web/finanse/ministerstwo-finansow-zaprezentowalo-projekt-nowej-ustawy-o-dochodach-jednostek-samorządu-terytorialnego>, access 17.09.2024.

In all 10 rural municipalities in the Mazovian Regional Region with the largest coverage of protected areas, as presented in Table 18, protected areas account for more than 99% of the municipality's total surface area. In six municipalities, this share amounts to 99.9% (Maciejowice, Odrzywół, Pionki, Wilga, Sadowne, and Siemiątkowo). Among the municipalities with the smallest coverage of protected areas, seven municipalities recorded a share below 1% (Błędów, Chynów, Krasnosielc, Paprotnia, Potworów, Sochaczew and Tczów). In the next three municipalities, the coverage of protected areas does not exceed 4% of the total surface area (Sońsk, Wierzbno, and Zaręby Kościelne).

Forest coverage

In line with Goal 15.2, countries implementing sustainable development goals should halt deforestation and increase the level of forestation. In this context, an analysis was carried out of data on the dynamics of change in the total forest surface area in 2019 and 2023 in the rural municipalities of Mazovia included in the survey. The aim of the analysis was to assess the extent to which this sustainable development goal is being implemented in Mazowieckie Voivodeship.

The research results indicate that, among rural municipalities in the Warsaw Capital Region, the most “forested” ones – where forests cover more than half of the total surface area – are Izabelin, Western Warsaw Poviát (75.6%), and Celestynów, Otwock Poviát (52.2%). In contrast, the smallest forest area was recorded in two municipalities in Grodzisk Mazowiecki Poviát: Baranów (0.2%) and Jaktorów (7.3%). Table 19 and Table 20 present 20 selected rural municipalities from each region, supplementing the data analyses with calculations for all rural municipalities in these regions.

Table 19. Forest coverage in rural municipalities in the Warsaw Capital Region in 2019 and 2023

No.	Municipality	Poviát	Coverage (hectare)			Difference in forest coverage 2019/2023 (%)	Share of forest coverage in total surface area (%)
			total	forests in 2019	forests in 2023		
1	Leoncin	Nowy Dwór Mazowiecki	15,799	7,884.75	7,883.99	99.99%	49.9%
2	Leszno	Western Warsaw	12,507	5,087.01	5,089.89	100.06%	40.7%
3	Izabelin	Western Warsaw	6,501	4,919.09	4,914.64	99.91%	75.6%
4	Celestynów	Otweek	8,892	4,631.16	4,637.86	100.14%	52.2%
5	Strachówka	Wołomin	10,776	4,602.01	4,557.52	99.03%	42.3%
6	Nieporęt	Legionowo	9,606	4,013.15	3,998.73	99.64%	41.6%
7	Czosnów	Nowy Dwór Mazowiecki	12,845	3,518.60	3,513.41	99.85%	27.4%
8	Wiązowna	Otweek	10,212	3,193.85	2,916.78	91.32%	28.6%
9	Pomieczówek	Nowy Dwór Mazowiecki	10,268	3,166.60	3,162.91	99.88%	30.8%
10	Stanisławów	Mińsk Mazowiecki	10,627	3,023.40	3,069.16	101.51%	28.9%
11	Siennica	Mińsk Mazowiecki	11,084	1,787.88	1,813.90	101.46%	16.4%
12	Sobienie-Jeziory	Otweek	9,768	1,753.21	1,715.92	97.87%	17.6%
13	Kampinos	Western Warsaw	8,460	1,727.98	1,729.76	100.10%	20.4%
14	Nadarzyn	Pruszków	7,345	1,331.48	1,331.64	100.01%	18.1%

Continued on the next page.

Table 19. Forest coverage in rural municipalities in the Warsaw Capital Region in 2019 and 2023 (cont.)

No.	Municipality	Powiat	Coverage (hectare)			Difference in forest coverage 2019/2023 (%)	Share of forest coverage in total surface area (%)
			total	forests in 2019	forests in 2023		
15	Stare Babice	Western Warsaw	6,342	1,197.41	1,208.62	100.94%	19.1%
16	Jakubów	Mińsk Mazowiecki	8,698	1,095.81	1,116.80	101.92%	12.8%
17	Lesznowola	Piaseczno	6,930	880.55	882.43	100.21%	12.7%
18	Raszyn	Pruszków	4,392	584.71	583.95	99.87%	13.3%
19	Jaktorów	Grodzisk Mazowiecki	5,530	419.51	403.83	96.26%	7.3%
20	Baranów	Grodzisk Mazowiecki	7,534	13.00	13.00	100.00%	0.2%

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025.

The analysis of changes in forest coverage in rural municipalities of the Warsaw Capital Region shows that in 2023 (compared to 2019), a slight increase in forest coverage was recorded in 12 municipalities, a decrease in 20 municipalities, and no change in one municipality. Where an increase in forest surface area was recorded, it should be emphasised that it was not significant (ranging from 0.1% in the municipality of Nadarzyn, Pruszków Powiat, to 1.92% in the municipality of Jakubów, Mińsk Mazowiecki Powiat). In turn, the largest decrease in forest coverage during this period was observed in the municipality of Wiązowna, Otwock Powiat (by approximately 8.7%), and in the municipality of Jaktorów, Grodzisk Mazowiecki Powiat (by approximately 3.7%).

Table 20. Forest coverage in rural municipalities in the Mazovian Regional Region in 2019 and 2023

No.	Municipality	Powiat	Coverage (hectare)			Difference in forest coverage 2019/2023 (%)	Share of forest coverage in 2023 in total surface area (%)
			total	forests in 2019	forests in 2023		
1	Pionki	Radom	22,972	14,735.14	14,550.59	98.75%	63.3%
2	Jednorzec	Przasnysz	23,491	11,381.94	11,480.96	100.87%	48.9%
3	Ostrów Mazowiecka	Ostrów Mazowiecka	28,293	11,398.80	11,252.34	98.72%	39.8%

Table 20. Forest coverage in rural municipalities in the Mazovian Regional Region in 2019 and 2023 (cont.)

No.	Municipality	Powiat	Coverage (hectare)			Difference in forest coverage 2019/2023 (%)	Share of forest coverage in 2023 in total surface area (%)
			total	forests in 2019	forests in 2023		
4	Kadziłło	Ostrołęcki	25,888	10,417.72	10,352.59	99.37%	40.0%
5	Nowy Duninów	Płock	14,622	10,100.83	9,986.13	98.86%	68.3%
6	Olszewo-Borki	Ostrołęcki	19,673	8,876.73	8,774.51	98.85%	44.6%
7	Sarnaki	Łosice	19,750	8,725.96	8,769.70	100.50%	44.4%
8	Łyse	Ostrołęcki	24,678	8,743.94	8,705.34	99.56%	35.3%
9	Gostynin	Gostynin	27,037	8,382.78	8,432.11	100.59%	31.2%
10	Brańszczyk	Wyszaków	16,651	7,687.79	7,688.57	100.01%	46.2%
11	Sieciechów	Kozienice	6,250	418.34	463.34	110.76%	7.4%
12	Grudusk	Ciechanów	9,676	440.63	443.42	100.63%	4.6%
13	Sochaczew	Sochaczew	9,138	435.57	429.70	98.65%	4.7%
14	Bielsk	Płock	12,516	415.51	412.08	99.17%	3.3%
15	Gołmin-Ośrodek	Ciechanów	11,071	363.14	389.84	107.35%	3.5%
16	Wierzbica	Radom	9,410	432.70	360.29	83.27%	3.8%
17	Rybno	Sochaczew	7,275	317.27	319.27	100.63%	4.4%
18	Dzierżążnia	Płońsk	10,250	281.03	279.41	99.42%	2.7%
19	Radzanowo	Płock	10,445	256.37	253.45	98.86%	2.4%
20	Goszczyn	Grójec	5,750	184.29	183.42	99.53%	3.2%

Source: Own study based on BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025.

In turn, the analysis of changes in forest coverage in rural municipalities of the Mazovian Regional Region indicates that in 2023 (compared to 2019), an increase in forest surface area was recorded in 49.5% of all municipalities (90 municipalities), a decrease in 47.3% (86 municipalities), and no change in five municipalities. Where an increase in forest coverage was recorded, it should be noted that only two municipalities reported an increase exceeding 10% (28.1% in the municipality of Radzanów, Mława Powiat, and up to 10.3% in the municipality of Kowala, Radom Powiat). In the remaining municipalities – as in the Warsaw Capital Region – the increase in forest surface area during the period under review was not significant (ranging from 0.0049% in the municipality of Zakrzew, Radom Powiat, to 10.7% in the municipality of Sieciechów, Kozienice Powiat).

*Ecological subsidy
for municipalities with legally protected areas*

The introduction in 2025 of a new form of financial support in the form of an ecological subsidy for local government units with designated legally protected areas was, in accordance with the legislator's intention, the first step towards changing the perception of protected areas by local authorities and communities. Ultimately, it is aimed at fostering acceptance of the establishment of new areas of high natural value. The planned amounts of the ecological subsidy for 2025 for rural municipalities in Mazovia were analysed. Based on the Annex to the Regulatory Impact Assessment of 15 July 2024, the analysis took into account the types of legally protected areas, their actual and conversion surface areas, as well as the base rates per 1 hectare of protected area.

The analysis of the planned ecological subsidy amounts for rural municipalities in Mazovia indicates that, among the 180 municipalities with designated protected areas, 18 will receive a subsidy exceeding PLN 1 million. These municipalities are presented in Table 20. Conversely, three municipalities in Mazovia will receive an ecological subsidy of less than PLN 5 (Teresin, Sochaczew Poviát – PLN 1.86, as well as Sochaczew, Sochaczew Poviát and Chyłów, Grójec Poviát – PLN 4.65 each).

Table 21. Surface area of protected areas and subsidies in 2025 for selected rural municipalities in Mazovia

No.	Municipality	Poviat	Region	Coverage (hectare)		Share of protected areas coverage in total surface area (%)	Ecological subsidy (PLN)
				total	protected areas		
1	Leoncin	Nowy Dwór Mazowiecki	RWS*	15,799	11,449.4	72.5%	6,205,513.82
2	Leszno	Western Warsaw	RWS*	12,507	8,440.2	67.5%	4,463,012.19
3	Czosnów	Nowy Dwór Mazowiecki	RWS*	12,845	12,829.2	99.9%	4,396,109.07
4	Brochów	Sochaczew	RMR**	11,981	10,931.8	91.2%	3,873,277.95
5	Izabelin	Western Warsaw	RWS*	6,501	5,582.7	85.9%	3,458,898.63
6	Kampinos	Western Warsaw	RWS*	8,460	5,030.8	59.5%	2,191,079.54
7	Strzegowo	Mława	RMR**	21,421	20,366.4	95.1%	1,894,074.27
8	Pionki	Radom	RMR**	22,972	22,956.2	99.9%	1,852,402.99
9	Maciejowice	Garwolin	RMR**	17,359	17,348.0	99.9%	1,629,642.72
10	Sadowne	Węgrów	RMR**	14,474	14,466.7	99.9%	1,369,294.49
11	Gostynin	Gostynin	RMR**	27,037	13,281.5	49.1%	1,276,119.50

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Table 21. Surface area of protected areas and subsidies in 2025 for selected rural municipalities in Mazovia (cont.)

No.	Municipality	Powiat	Region	Coverage (hectare)		Share of protected areas coverage in total surface area (%)	Ecological subsidy (PLN)
				total	protected areas		
12	Nowy Duninów	Płock	RMR**	14,622	11,357.7	77.7%	1,195,594.52
13	Lutocin	Żuromin	RMR**	12,645	12,624.1	99.8%	1,174,029.68
14	Wilga	Garwolin	RMR**	11,886	11,877.8	99.9%	1,104,633.54
15	Lipowiec Kościelny	Mława	RMR**	11,446	10,897.0	95.2%	1,077,416.16
16	Jabłonna Lacka	Sokołów Podlaski	RMR**	14,929	11,288.0	75.6%	1,074,992.43
17	Siemiatkowo	Żuromin	RMR**	11,339	11,324.3	99.9%	1,053,162.69
18	Sarnaki	Łosice	RMR**	19,750	11,008.4	55.7%	1,052,537.89
19	Mochowo	Sierpc	RWS*	14,369	10,514.5	73.2%	977,849.43
20	Stare Babice	Western Warsaw	RWS*	6,342	4,102.7	64.7%	946,635.69

RWS* – Warsaw Capital Region.

RMR** – Mazovian Regional Region

Source: Own study based on: Annex to the Regulatory Impact Assessment (OSR) 15.07.2024, Rządowy projekt ustawy o dochodach jednostek samorządu terytorialnego, <https://www.gov.pl/web/finanse/ministerstwo-finansow-zaprezentowalo-projekt-nowej-ustawy-o-dochodach-jednostek-samorządu-terytorialnego>, access 17.09.2024; BDL GUS, <https://bdl.stat.gov.pl>, access 10.02.2025.

The largest ecological subsidy in 2025 has been allocated to the municipality of Leoncin (PLN 6.2 million) in the Warsaw Capital Region. A further two municipalities – also from this region – will receive ecological subsidies in excess of PLN 4 million (Leszno, Western Warsaw Powiat, and Czosnów, Nowy Dwór Mazowiecki Powiat). It should be emphasised that there is a direct relationship between the surface area and type of legally protected area, to which the relevant weights have been assigned, and the amount of the ecological subsidy. For example, protected areas in the municipality of Leoncin have been designated on 72.5% of the municipality's territory, yet the subsidy amount is the highest among all rural municipalities in Mazovia. This is primarily due to the designation within the municipality of approximately 9,700 hectares of national park, for which the Act on the Revenues of Local Government Units assigns a weight of 2, as well as over 300 hectares of nature reserves (with a weight of 1). A similar situation occurs in the municipality of Leszno, where protected areas cover 67.5% of the territory and the ecological subsidy has been estimated at approximately PLN 4.5 million, mainly due to the designation of around 7,000 hectares of national park.

Territorially sustainable economic growth

The 2030 Agenda sets out goals for supporting local economic growth in various areas, including Goal 11 – Sustainable Cities and Communities (“Make cities and human settlements inclusive, safe, resilient and sustainable”) and 11.a (“support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning”). Priorities within Goal 11 include, among others, “Supporting fair and territorially sustainable economic growth by the pursuit and maintenance of the polycentric and hierarchical settlement structure of the country and creating more effective network connections between cities”⁴⁰.

Based on the analysis of selected sustainable development indicators, it can be stated that the outcomes of implementing the above goal for most rural municipalities in peripheral areas of Mazovia are unsatisfactory. This is highlighted in studies and strategic documents. The Development Strategy of Mazowieckie Voivodeship indicates that, in the Mazovian Regional Region (in rural areas and small towns located in peripheral areas), persistent depopulation and a natural decrease have been recorded. Unemployment, low wages, weak economic activity, and a lack of professional prospects in this region result in the emigration of young people and in social exclusion. In rural municipalities neighbouring Warsaw, economic development is associated with the declining significance of agriculture as a source of employment and income, as well as the “decline” of the smallest villages. Directions for stimulating economic activity in rural areas include, among others, strengthening agricultural production, improving farm productivity, supporting the diversification of economic activity, and creating non-agricultural jobs⁴¹.

As part of the National Strategy of Regional Development, the “Updated list of municipalities at risk of marginalisation”⁴² includes 111 municipalities in Mazovia, of which 88 are rural municipalities covered by the study (87 in the Mazovian Regional Region and one in the Warsaw Capital Region) – Table 22.

40. Kampania 17 celów, <https://kampania17celow.pl/cel-11-zrownowazone-miasta-i-spolecznosci/>, access 5.02.2025.

41. Mazowieckie Biuro Planowania Regionalnego w Warszawie, *Strategia rozwoju województwa mazowieckiego* ..., op. cit., p. 56.

42. Updated list of municipalities at risk of permanent marginalisation, programming for 2021–2027, *Krajowa Strategia Rozwoju Regionalnego*, <https://www.gov.pl/web/fundusze-regiony/krajowa-strategia-rozwoju-regionalnego>, access 15.02.2025.

Table 22. Rural municipalities at risk of marginalisation in Mazowieckie Voivodeship

No.	Surface area	Municipality	Region
1	Wołomin	Strachówka	RWS*
2	Białobrzegi	Radzanów	RMR**
3	Ciechanów	Gołmin-Ośrodek, Grudusk, Ojrzeń	RMR**
4	Garwolin	Trojanów	RMR**
5	Gostynin	Szczawin Kościelny	RMR**
6	Kozienice	Gniewoszków	RMR**
7	Lipsko	Chotcza, Ciepeliów, Rzeczników, Sienno	RMR**
8	Łosice	Huszwel, Olszanka, Platerów, Sarnaki, Stara Kornica	RMR**
9	Maków	Karniewo, Krasnosielsk, Płoniawy-Bramura, Rzewnie, Sypniewo, Szelków	RMR**
10	Mława	Dzierzgowo, Lipowiec Kościelny, Strzegowo, Stupsk, Szreńsk	RMR**
11	Ostrołęcki	Baranowo, Czarnia, Goworowo, Kadzidło, Lelis, Łyse, Troszyn	RMR**
12	Ostrów Mazowiecka	Andrzejewo, Boguty-Pianki, Nur, Stary Lubotyń, Szulborze Wielkie, Wąsowo, Zaręby Kościelne	RMR**
13	Płock	Bulkowo	RMR**
14	Płońsk	Dzierżążnia, Naruszewo, Raciąż	RMR**
15	Przasnysz	Czernice Borowe, Jednorzec, Krasne, Krzynowłoga Mała, Przasnysz	RMR**
16	Przysucha	Borkowice, Gielniów, Klwów, Odrzywół, Potworów, Rusinów, Wieniawa	RMR**
17	Pułtusk	Gzy	RMR**
18	Radom	Pionki	RMR**
19	Siedlce	Korczew, Paprotnia, Przesmyki, Wodynie	RMR**
20	Sierpc	Gozdowo, Rościszewo, Szczutowo, Zawidz	RMR**
21	Sokołów Podlaski	Bielany, Ceranów, Jabłonna Lacka, Repki, Sabnie, Sterdyń	RMR**
22	Szydłowiec	Chlewiska, Mirów	RMR**
23	Węgrów	Grębków, Korytnica, Miedzna, Sadowne, Stoczek	RMR**
24	Zwoleń	Kazanów, Policzna, Przyłęk, Tczów	RMR**
25	Żuromin	Kuczbork-Osada, Lutocin, Siemiątkowo	RMR**

RWS* – Warsaw Capital Region.

RMR** – Mazovian Regional Region

Source: Updated list of municipalities at risk of permanent marginalisation, programming for 2021–2027, National Strategy of Regional Development, <https://www.gov.pl/web/fundusze-regiony/krajowa-strategia-rozwoju-regionalnego>, access 15.02.2025.

Summary

The results of the analysis presented in this article allow the following conclusions to be drawn:

1. Rural municipalities in the Warsaw Capital Region are characterised by a relatively high level of socio-economic development, resulting, among other factors, from their proximity to Warsaw and the municipalities' own revenues per capita. In contrast, rural municipalities in the Mazovian Regional Region are marked by a lower level of development, attributed, among other reasons, to population outflow to cities, poorly developed infrastructure, and a declining number of enterprises.
2. The classification of municipalities by demographic development type indicated a division of Mazovia into a central area with high (and prospective) socio-economic development potential and a peripheral area, in which population decline and a lack of economic development prospects exacerbate the marginalisation of rural municipalities.
3. In rural municipalities neighbouring Warsaw, a process of peri-urbanisation (urban sprawl) is observed, resulting in the cessation of agricultural activity and a reduction in forest areas.
4. The degradation of rural municipalities in peripheral areas can be halted, among other measures, by improving the competitiveness of the agricultural sector and developing local infrastructure.
5. The ecological subsidy may serve as significant support for municipalities in peripheral areas and contribute to their socio-economic development. Local authorities may allocate ecological subsidy funds, for instance, to municipal infrastructure, transport accessibility, entrepreneurship and digitalisation, as well as environmental protection and social welfare.

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