



DIRECTIONS OF CHANGE IN THE SPATIAL POLICIES OF POLISH BORDER MUNICIPALITIES DURING THE FIRST YEAR OF WAR IN UKRAINE, 2022

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Abstract. Local-level spatial policies in Poland are determined by diverse social, economic, political and environmental factors. On the one hand, they result from the specific characteristics of individual areas. On the other, however, supra-local factors are found to be playing an increasingly important role. These can include trends related to the Europeanisation of spatial planning and the associated promoted institutional changes and changes in planning practices. However, from February 2022 onwards, certain European countries in particular have seen another important factor has come into play, i.e. the war in Ukraine. It thus seems legitimate to verify how the fundamental change in the geopolitical situation, i.e. the location in the immediate vicinity of a victim state (Ukraine), an aggressor state (Russia) and an aggressor-friendly state (Belarus), along with a number of related consequences (including a change in the nature of border capacity, a sense of insecurity, potential changes in investment policy, etc.) determine the directions local spatial policies have been taking. The main purpose of the article is to diagnose the current planning situation of units of local-government administration along Poland's eastern border by reference to two groups of issues: (1) concerning the state of progress of planning work, as well as (2) the impact of the outbreak of war in Ukraine on changes in spatial policy (perforce ancillary, given the small number of responses received). The source of the data were annual surveys of the Ministry of Development and Technology and Statistics Poland regarding the advancement of planning work at the level of the Polish *gmina*, as well and a survey addressed to all 77 such units of local administration located by the border. Particular reference was made to the application of spatial-planning instruments at the local level (studies of spatial planning conditions and directions, local spatial development plans and decisions on development conditions – with the analyses concerning the period before the major July 2023 amendment of spatial planning law). Particular attention was paid to the frequency of enactment of individual acts, with this being related to both earlier periods and trends in Poland as a whole. The research finds that the relatively high level of activity shown by some of the surveyed *gminas* in amending/updating spatial planning studies and spatial/physical development plans may not be related to the outbreak of war in Ukraine. The Polish spatial-planning system in fact lacks instruments by which to react flexibly and ensure the integration of development policies (as is particularly necessary when a crisis erupts).

Keywords: local government, Polish border areas, public safety, Schengen border, spatial policy, war.

Introduction

Notwithstanding earlier phases of hostilities more confined geographically, the February 2022 outbreak of war in Ukraine has had a significant impact in differentiating socio-economic conditions across Poland. For the first time in many years, intensive war is being waged relatively close to Polish borders. This circumstance would seem to require differentiated, multifaceted analyses of how extensive changes and threats caused by the war in the neighbouring country might be. This also applies to the sphere of spatial planning. Places and areas by the border with the country at war would be expected to be to war-related changes and threats to a particular degree. Furthermore, given the geopolitical circumstances, this should be understood as applying, not merely to areas bordering with Ukraine itself, but also to Polish units of administration bordering with Belarus and Russia (through the presence of the exclave of territory known as the District of *Oblast* of Kaliningrad).

Against this background, the main purpose of the work presented in this article has been the diagnosis of the current planning situation present in the units of administration at local level located by the eastern border of Poland. The two groups of issues needing to be distinguished relate to:

- the state of progress with planning work (addressing a question as to peculiarity of conditions impacting upon the implementation of planning provisions and the effects of spatial planning);
- whether and to what extent the outbreak of war in Ukraine has caused changes in spatial policy at the local-authority level in border areas.

At the outset, it was and is noted that analysis of the second issue can be nothing more than preliminary, given specific features of the Polish spatial planning system, notably its very limited flexibility (length of time taken to pass local plans). Thus, the authors have attempted to analyse the issue to the extent that the timeframe considered and the static nature of Polish spatial-planning instruments allow (without further studies at later stages being precluded).

In pursuit of the goals referred to above, specific reference was made to the application of spatial-planning instruments at the local level, of which there are three, i.e. studies of spatial planning conditions and directions, local spatial plans, and decisions on development conditions. Importantly, analyses were confined to the period prior to the major (July 2023) amendment of Poland's law on spatial planning. Particular attention was paid to the frequency of enactment of individual examples of the aforementioned instruments, with that being set against both earlier periods and other areas of Poland (i.e. nationwide trends). Attention was also paid to the frequency with which land use, relevant from the perspective of the aim of the work, was included in individual planning acts. An attempt was also made at the partial validation of approaches taken by land-use planners to the objectives and challenges characterising planning in the aftermath of a war having broken out.

A literature review thus presents extracted links between the security sphere and the directions taken by local spatial policies, and relates the above to the specifics of spatial planning in units of local administration by the border. After first presenting justifications as regards the selection of the study area and source data in its methodology section, this paper goes on to offer a characterisation of the main socio-economic phenomena and processes relevant to the studied areas – of course from the perspective of the work's overall aim. The article then proceeds with an in-depth description of the key directions to spatial policies in the studied units of administration as of February 2022. A discussion section then relates indicated results to theses present in the literature, with indications given as to what the new research is able to contribute.

Literature review

The link between security issues and spatial planning is a topic addressed less frequently in the literature than the much more widely-discussed relationship between spatial planning and other sectoral issues. It is possible to identify publications in which security issues, perceived as risk factors, are signalled by individual authors as relevant to spatial planning. However, this happens at a certain level of generality (Johansson, 2013; Belgrund-Snodgrass, 2016). The security dimension is broadly understood by individual authors. It is not always related directly to defence, but rather for example, to natural hazards (Xenia & Pavlos-Marinos, 2017). However, a few relevant publications linking spatial planning to defence issues can be identified. Fathi et al. (2016), referring to Iran, note the importance of spatial planning at the regional level in particular. In their view, it is necessary to analyse the spatial distribution of services and facilities in different parts of the threatened provinces from this perspective (regional level) as well. Borhani and Esmaeili (2021) distinguish two dimensions of spatial planning, i.e. the development-related and the defence/security-related. The latter dimension should be linked to multi-scalar spatial plans, allowing for clarification of passive defence issues related to reducing the vulnerability of cities to military threats. Hashemi et al. (2019) addressed security threats in border areas directly.

However, their framing also deals with the state directly threatened by conflict. In this framing, the authors saw significant relationships between security/defence and health/economic indicators. Yang et al. (2021), referring to border areas, advocate the defining of detailed principles of state defence security in spatial planning. One of the postulates is to create even in such areas a 'special construction belt', which can also meet security needs. It can therefore be assumed that a key part of the discussion on the link between spatial planning and state-security considerations boils down to demands for supra-local planning. Depending on the situation and on the specifics of the national system of spatial planning, this may involve strengthening both the regional and national scales (with specific legal solutions adapted). What is lacking in the literature, however, is consideration of how diminishing security determines the spatial policies of individual areas.

A somewhat more concrete thesis can be found when defining the specificities and related challenges of spatial planning in times of crisis. The concept of crisis in the context of spatial planning can be understood broadly, and here it is worth following Boonstra (2020) in pointing to the way in which local-government units must currently be viewed from the perspective of dynamic change. Spatial structure and spatial planning instruments must be ready to respond quickly to changes caused by crises. The considerations in this article do not relate to the climate crisis. It is more about the adaptation of spatial planning to sudden, unexpected change causing risks. One such sudden change was caused by the pandemic. In this context, the literature mainly calls for spatial planning to take more account (when constructing individual instruments) of conditionality beyond the traditional 'designed' version. This would link in with the environmental and health spheres (Pineo et al., 2020; Sharifi & Khavarian-Garmsir, 2020; Śleszyński et al., 2022, 2023). Put differently, the authors feel that an effective spatial-planning response to potential pandemic crises requires prior adaptation, in particular of mechanisms by which to integrate development policy. The second direction developed in the literature linking spatial planning and crisis concerns the case study of Greece. Numerous authors have analysed the relationship indicated, noting, among other things, the need to broaden the integration of development planning (Perperidou, 2021), to strengthen strategic spatial planning (Thoidou, 2013), to integrate territorial equity more widely in planning (Balla, 2016), or to adapt the scale of spatial plans more widely to the specificities of areas subject to crises (Vezyriannidou & Portokalidis, 2018). In conclusion, it can be pointed

out that the literature is limited in addressing holistically the crisis response of spatial planning systems (especially from an institutional perspective). Rather, it is limited to the development of post-crisis guidelines aiming to guard against the undesirable effects of particular types of crises. Directionally, the role of strategic spatial planning and the integration of development policies is emphasised in this context.

Reference should also be made to the specifics related to spatial planning in border municipalities. In the literature, the issue of cross-border cooperation is linked predominantly with this issue, which is not so relevant to this article. The conditions of the war make such cooperation impossible. However, the literature also addresses the specifics of spatial planning in border areas. According to many authors, a border location determines a separate context, be that institutional, cultural or research-related (Peyrony & Denert, 2012; Jacobs, 2016; Pallagst & Hartz, 2022). On the other hand, Hashi et al. (2014) point to the greater risks as regards migration processes in such areas. This determines the need for a specific approach to spatial planning (Pallagst, 2016), taking into account the very intensive link between spatial planning and strategic development planning (Kociuba, 2012). Akhgar et al. (2014) postulate especially the need for development capacity to be raised in certain designated units of administration, as served by integration of economic, cultural, management-related and physical-planning dimensions.

In conclusion, it can be pointed out that, thus far, the topic addressed by this article has received only limited theoretical coverage. It is possible to single out specific case studies (indicated above), as well as to relate spatial planning to challenges understood in a more specific way. This is partly understandable, as capturing more universally the (politically, socially, etc.) different situations of different countries is a very difficult task. In general, however, the topic of changes in spatial planning in relation to the outbreak of a war threat in a neighbouring state has been a subject of reflection in rare cases only.

Research methodology and data sources

Study area

Our analyses were carried out in relation to a strip of Polish local-authority areas bordering with Russia (Kaliningrad Oblast), Lithuania, Belarus and Ukraine. The Lithuanian border, which in principle is fully passable, was included for the sake of geographical continuity. In total, the surveyed border section is about 1300 km in length, with 77 of the local-level (*gmina*, LAU 2) units of administration located along it. Most of these are Podlaskie Voivodeship (26), followed by Lubelskie Voivodeship (22), Warmińsko-Mazurskie Voivodeship (15), Podkarpackie Voivodeship (13) and Pomorskie Voivodeship (1) (Fig. 1) – where a Voivodeship is one of the 16 Polish units of administration operating simultaneously in regional and provincial capacities, albeit by way of separate institutions (NUTS 2). In terms of the neighbouring states involved, 13 border on to Russia, 6 – Lithuania and 27 – Belarus. Two units of administration have borders with two countries, i.e. Giby with Lithuania and Belarus; and Włodawa with Belarus and Ukraine (in the analyses they were separated with the length of the border taken account of).



Figure 1. The study area – 77 *gmina*-level units (of local) administration (the names of the voivodeships within which they lie are given in upper case and italics, while the provincial/regional capitals are presented alongside dots on the map)
Source: authors’ own elaboration.

Basic information on the studied units is presented in Table 1. They covered 14,200 km² in total, i.e. less than 5% of the overall area of Poland. There were 507,000 people registered in these localities in terms of permanent residence (or less than 1.5% of the country’s population). Among these, the largest urban centres (Przemysł plus Bartoszyce, Braniewo, Hajnówka, Hrubieszów and Sokółka) concentrated around 150,000 people. More than half of these *gmina*-level units (47) had fewer than 5000 inhabitants each, and the smallest (the town of Krynica Morska, located by the border with Kaliningrad Oblast) had a mere 1100 inhabitants. Towns were present in the *gminas* in a total of 21 cases.

Table 1. Key information about the units of local administration surveyed (2022)

Gminas bordering with:	Number of localities	Area		Population registered		Density of population (persons/km ²)
		km ²	%	'000	%	
Belarus	30	5553	38.9	149.2	29.4	26.9
Lithuania	7	1055	7.4	23.3	4.6	22.1
Russian Federation (Kaliningrad Oblast)	16	3517	24.7	125.1	24.7	35.6
Ukraine	24	4142	29.0	209.5	41.3	50.6
Total	77	14,267	100.0	507.1	100.0	35.5

Source: based on Statistics Poland (2023).

Source data

In describing the socio-economic background, use was made of the Local Data Bank of Statistics Poland (2023), as well as synthetic indicators of socio-economic development and quality of life, used in the delimitation of problem areas (Śleszyński et al., 2017, 2020), cities losing socio-economic functions (Śleszyński, 2017) and the ranking of the '*gmina* good to live in' (Śleszyński, 2021). The methodology of their compilation is discussed in detail. As regarding spatial planning, data were as published (Statistics Poland, 2023) or unpublished (Ministry of Economic Development and Technology) – in relation to the PP-1 survey 'Spatial planning in the *gmina*', implemented in all local-authority areas in Poland by Statistics Poland since 2004. This offers detailed information on the main planning documents, such as the so-called spatial planning study, local spatial development plan (LSDP) and decision on development conditions.

Since data from public statistics only include quantitative and qualitative information on the state of advancement of planning works; not providing information on detailed motivations for decisions made, an appropriate set of questions has been prepared for local governments. Prepared open questions of this kind were then sent out to all 77 units of local administration bordering directly on to Ukraine, Belarus and Kaliningrad Oblast. The questions were formulated as follows:

- Has the direction of spatial planning in your area changed in any way since February 2022 (the outbreak of the war in Ukraine)?
- Were there any new, less-noticeable aspects as local plans/changes to a study were being developed?
- Have you noticed any other changes in the area of spatial planning?

The survey was sent by e-mail to spatial-planning units at the local authorities (departments/departments of construction, architecture, planning, development, etc.). Responses were obtained from 9 *gminas* (almost 12% of the total), i.e. Górowo Iławeckie, Hrubieszów, Kleszczelce, Lutowiska, Michałowo, Mielnik, Szudziałowo, Węgorzewo and Szypliszki.

It was decided that possible answers might help make reference to the content of individual spatial planning acts, as well as offering more-detailed verification of the approach representatives at local level being taken. However, the number of responses obtained leads to treatment of the indicated part of the results as nothing more than supplementary.

Main socio-economic phenomena and processes

Before the aggression in Ukraine, northern and eastern border areas of Poland had been the subject of exhaustive research on several occasions¹ (e.g. Miszczuk, 2013; Sitek, 2016), including as regards delimitation (Komornicki et al., 2019). In general, these parts are underdeveloped due to their peripherality, which has been exacerbated in recent years by the tense geopolitical situation and war-migration crisis, the abolition of the so-called local border traffic and the lack of trade. The units of administration along the border have been characterised by a constant negative migration balance persisting for many decades. The balance for births and deaths has been generally negative,

¹ The Development of Polish Western and Eastern Borderland Areas Bulletin (*Biuletyn Rozwoju Zachodnich i Wschodnich Obszarów Przygranicznych Polski*) appeared in the years 1993-1995 under the framework of the project entitled 'The Basis of Development of Western and Eastern Borderland Areas of Poland' that was carried out under the supervision of prof. Andrzej Stasiak in the IGSO PAS. In total 12 volumes were published.

with marked ageing of the population and other deformations of the biological structure, including a strong masculinisation of the population aged 20-39 as a result of the outflow of women.

Over the last decade, the population has declined considerably, by an average of 11%, most notably at the border with Belarus (-12.5%; Table 2). At the same time, the population of post-working age group (men 65 and over, women 60 and over) increased by as much as 1/5, including at the border with the Kaliningrad Oblast – by more than 30%, reaching 23.3% there. However, this was the lowest rate along all borders, as in other areas the advancement of ageing processes was still-greater. In general, the demographic depression in the border belt is probably greater, as part of the actual outflow goes unrecorded.

Table 2. Population in border municipalities in the north and east of Poland

Polish units of local administration bordering on to:	Population			Postworking-age population		
	2012	2022	2012-2022 change (%)	2012	2022	2012-2022 change (%)
	'000			share (%)		
Belarus	170.4	149.2	-12.5	21.0	26.5	10.5
Lithuania	25.9	23.3	-9.9	21.6	24.0	14.9
Russia	140.9	125.1	-11.2	20.7	23.3	30.8
Ukraine	232.7	209.5	-10.0	21.9	24.3	23.1
Total	569.9	507.1	-11.0	22.0	24.7	20.1

Source: based on Statistics Poland (2023).

The units of local-government administration located along the border are characterised by a low level of development. This is illustrated by a number of indicators (Table 3), which are the basis for the nationwide rankings of ‘good to live in’ (Śleszyński, 2021). The values for indicators such as local government income, housing investment, fallow land area or school education results differ significantly from those in the rest of the country. As a result, *gminas* along the border in question have mostly been delimited as problematic (Śleszyński et al., 2017). In the latest categorisation for 2018, as many as 52 local-authority areas (or 68% of the total) were identified as problematic (Śleszyński et al., 2020). In addition, in the update of the so-called cities losing socio-economic functions (increasing their unfavourable development distance in relation to others; Śleszyński, 2017), as many as 12 from the border area were recognised as such, which is to say all of the medium-sized cities (cities that are not provincial capitals, with more than 20,000 inhabitants, or district capitals).

Other authors identify and highlight such features of underdevelopment as transportation exclusion (Guzik & Kołoś, 2021), weakness of functional links with larger cities (Ilnicki & Janc, 2021), lack of activities of creative entities (outside Białowieża, Namysłak & Spallek, 2021), high proportion of disappearing villages (Rosner & Wesołowska, 2022), weaknesses in tourism development (Cerić, 2023), and even a higher level of social discontent than elsewhere, characterized by a higher percentage of support for political parties considered populist (Bański et al., 2023).

The underdevelopment of border areas and their strong depopulation with a high level of dispersion of settlements determines key conditions for spatial planning. There are two main problems: optimisation of public services to the housing development network, and the development of abandoned infrastructure.

Table 3. Selected values reported for indicators showing the state of development and quality of life in units of local-government administration along the Polish border in 2022

Indicator	Detailed description	Median index value for				Poland (2477)
		gminas bordering on to:				
		Belarus (30)	Lithuania (7)	Russia (16)	Ukraine (24)	
ENVIRONMENTAL						
Environmental pollution	Deviation from norm of concentrations (average of BaP, PM10, PM25); norm = 100%.	39.5	35.0	36.2	40.7	59.2
Uncultivated agricultural land	Fallow land per inhabitant (m ²)	156.2	66.4	135.8	86.1	48.5
DEMOGRAPHIC						
Gender balance at marriageable age	Deviation of the feminisation/masculinisation coefficient in the 20-39 age group	18.0	12.6	14.2	13.1	8.4
Generational replacement	Number of births per 100 deaths	0.37	0.48	0.51	0.49	0.65
Migration and settlement attractiveness index	Migration work balance (registrations weighted by distance) per inhabitant	-1.6	-2.5	-3.3	-3.5	-0.6
ECONOMIC						
Municipal budgets	Own income of budgets per inhabitant (PLN)	2,585	2,822	2,389	2,165	2,461
Income poverty	Beneficiaries of community social assistance per 10,000 in the population	7.3	7.3	10.2	6.4	4.3
Loan repayment	Share of people with at least one debt due over 90 days among borrowers (%)	7.2	6.6	9.9	6.6	6.9
Local-government expenditure on property investment	Capital investment expenditure of <i>gminas</i> per inhabitant (PLN)	1,046	1,188	762	895	921
Unemployment rate	Number of registered unemployed per 100 people of working age	6.7	6.8	8.2	8.1	4.0
Average wage	Average gross monthly wages and salaries in the poviat in relation to the national average (Poland=100)	82.1	94.1	80.1	76.5	83.6
HOUSING AND INFRASTRUCTURE						
Housing investment	Dwelling space completed per inhabitant (m ²)	0.33	0.48	0.16	0.28	0.40
Housing conditions	Usable floor space of dwelling per person (m ²)	35.6	32.6	26.9	29.0	30.5
Water supply	Share of population using waterworks (%)	89.4	88.1	94.0	75.3	93.9
Spread of settlements	Length of the shortest dendrite between address points per inhabitant (m)	39.5	55.7	29.3	21.7	17.2
SERVICES						
Health services	Doctors working by primary place of work in the district per 10,000 in the population	14.9	16.8	13.7	13.4	15.5
General accessibility to public and commercial services	Synthetic index of temporal peripherality (accessibility) to urban centres of differing order (minutes)	43.7	42.1	50.2	42.4	35.3
Physical accessibility to primary school	Average distance separating pupils from primary school (m)	3,061	4,307	3,206	2,623	1,873
Level of primary education	Eighth-grade test average (Polish, mathematics) weighted by the national average (against the national average = 100)	86.9	84.9	88.6	90.1	94.1

Source: based on Śleszyński (2020), as updated.

State of spatial planning and pace of planning work

At the time of the study (i.e. in advance of the July 2023 amendment of the Polish regulations on spatial planning), the main document of the *gmina* relating to spatial policy was the study of spatial (physical) development conditions and directions. Almost all of the units of local-government administration under study were in possession of such a study, with the exception being Krynki. The years in which the relevant documents were adopted are as shown in Figure 2. In as many as 24 cases (approximately 1/3), they were more than 10 years old, though the number is probably much higher, as 25 local governments were in the process of updating. There are 6 local authorities whose studies were adopted before 2003, i.e. more than 20 years ago. Of these, 2 deal with areas on the border with Belarus, 2 – with Lithuania and 2 – with Russia). This inevitably denotes that the relevant planning documents can be severely outdated. Equally, in 2022 as many as 1/3 of the *gminas* under study engaged in updating of their conditioning studies. That included 11 along the border with Belarus, 2 adjacent to Lithuania, and 5 and 7 neighbouring with Russia and Ukraine respectively. It is worth noting that the percentage of updates by local authorities on borders (at 32.5%) was noticeably higher than the figure for the rest of the country (27.3%). Equally, the percentage of projected plans, which take more than 4 years to draw up, decreased significantly from 32 to 22 documents. It is of course unclear to what extent this is a result of the war in Ukraine, and to what extent the completion of work following the pandemic crisis, which caused a slowdown in work on local spatial plans.

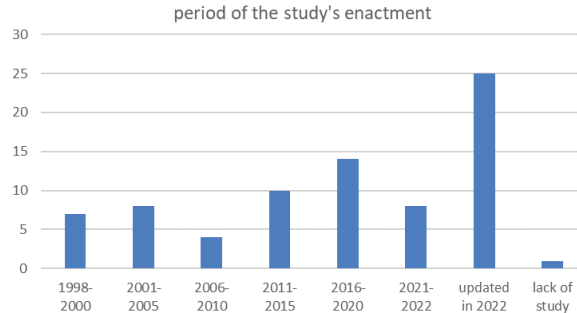


Figure 2. Topicality of spatial-planning studies in *gminas* in eastern border locations

Source: Ministry of Economic Development and Technology via surveys from across the country carried out by Statistics Poland (2023).

Significant areas of land in the *gminas* under study came to be earmarked for development. In regard to the 44 local authorities supplying relevant information, a maximum of 6-10% of the land involved was allocated for multi-family housing (Hrubieszów, Górowo Iławeckie, Sępópol, Przemyśl), while where single-family housing was concerned there were as many as 10 localities with a figure above 20% (i.e. Dubicze Cerkiewne, Fredropol, Janów Podlaski, Konstantynów, Przemyśl, Radymno, Sejny, Sępópol and Wiązajny). In another 4, the figure exceeded 10% (these being Dorohusk, Mircze, Puńsk and Górowo Iławeckie). This denotes a very large overestimation of investment needs, leading to dispersion of development, high costs of construction and servicing of infrastructure, as well as spatial chaos. Only in 21 local-authority areas (i.e. half of all those analysed) did this indicator not exceed the 'reasonable' value of 3%.

At the end of 2022, there were 833 local spatial plans in force in the border municipalities, covering an area of 211,700 ha, or an average of 14.8% of the overall area administered. This was a much lower rate than in the rest of the country (where the figure is around 32%). At the same time, planning coverage varied hugely, ranging from 100% in 13 *gminas*, 50-69% in 3, and 11-44% in 4 (Table 4, Fig. 3A). That still left 53 *gminas* with coverage below 10%, and among these a sizeable group of 24 in which coverage was below 1%, as well as 4 *gminas* (5% of the total) with no plans at all. These figures in fact resemble those for the country as a whole.

Between 2012 and 2022 there was an increase in numbers of local spatial plans from 634 to 833, though paradoxically this was associated with the declines in planning coverage referred to above. This was due to the withdrawal of part of one of the local spatial plans in the *gmina* of Rokitno (Lubelskie Voivodeship). The effect of that was for 2017 to witness a decline by almost 14,000 ha in the area covered by the document. In the other areas the same period saw the average increase in area covered at a level below 5%, even as the increases exceeded 33% in *gminas* bordering with Kaliningrad.

Table 4. Effective local spatial development plans (LSDPs) in border *gminas*, 2012-2022

Polish <i>gminas</i> bordering on to:	Effective LSDP (number)			Effective LSDP (planning coverage, %)		
	2012	2022	change (%)	2012	2022	change (absolute area, %)
Belarus	155	208	25.5	16.3	14.7	-9.6
Lithuania	47	59	20.3	22.3	22.5	1.0
Russia	111	189	41.3	1.9	2.5	33.4
Ukraine	321	377	14.9	23.0	23.5	2.3
Total	634	833	23.9	15.1	14.8	-1.9

Source: Ministry of Economic Development and Technology, with data gathered from all *gminas* by Statistics Poland (2023).

Overall, in the *gminas* located along the eastern border of Poland, some 5300 ha of land in local plans went over from agricultural to non-agricultural designations (reflecting the so-called de-agriculturalisation) (Fig. 3B). However, more than 40% of this area of land in fact fell within just a single *gmina* – of Lubaczów (the so-called ‘bagel’ and located around the town of the same name). About 10% of the area was deforested. In addition, more than 700 ha of land was de-landed in the urban-rural *gmina* of Węgorzewo, and more than 100 ha in Dubienka, Radymno, Sejny, Szypliszki, Terespol and Zalesie. Assuming that 60% of these land plots are areas for single-family housing, as well as that 25 people can live on 1 ha (5 plots of 2000 m² each, 5 people in a house), such large amounts of new investment land can accommodate around 80,000 inhabitants – a figure looking completely unjustified in view of ongoing depopulation.

Even if it is assumed that new houses are being built to improve the existing standard of housing, this is in no way justified by the current rate of migration, e.g. from urban *gminas* to their rural ‘periphery’. For example, in rural Lubaczów, the period 1989-2022 saw 2911 people ‘check in’ (including 1082 from what is formally categorised as the town of Lubaczów). In the same period, 3872 people deregistered (with 1366 people heading in the direction of urban Lubaczów). This means that the overall migration balance is strongly negative (at -961), including with the town (-284).

As for projected plans (i.e. plans at *gmina* level that have not been enacted but are being worked on), the number of such over the whole area at the end of 2022 was 109 (compared with 102 the year before). The number has not changed significantly, therefore. However, between 2021 and 2022, 23 new plans were adopted in the *gminas* under analysis, meaning that a total

of 30 new plans are involved. The *gminas* involved with the most major increases in number were the city of Przemyśl (where work started on 10 new plans), as well as Hrubieszów, Sejny and Terespol (4 new plans). There was a 3-plan increase in 2 more local authorities, as well as 1 plan extra in a further 11.

But all in all, the revival in drafting has to be assessed as incidental and random: all the more so as the number of projected plans did not change in as many as 57 *gminas* (of which 3 have never had a document of this kind), while even decreasing in a further 3 (where the planning coverage achieved remained below 10%).

When it came to the type of document known as the decision on development conditions, there were some 48,400 issued in the analysed border *gminas* over the 2003-2022 period (Fig. 3C). These included more than 2000 decisions in places like Bartoszyce, Gołdap and Węgorzewo (on the border with Russia) and, in addition, in Ustrzyki Dolne on the border with Ukraine, where tourism is an important function. More than 1000 decisions on development conditions were issued in a further 10 *gminas*, including Hajnówka (a rural *gmina* in large part located within the protected area of the Białowieża Forest). All in all, the instrument can be regarded as rather widely used where local authorities have only achieved a low level of planning coverage.

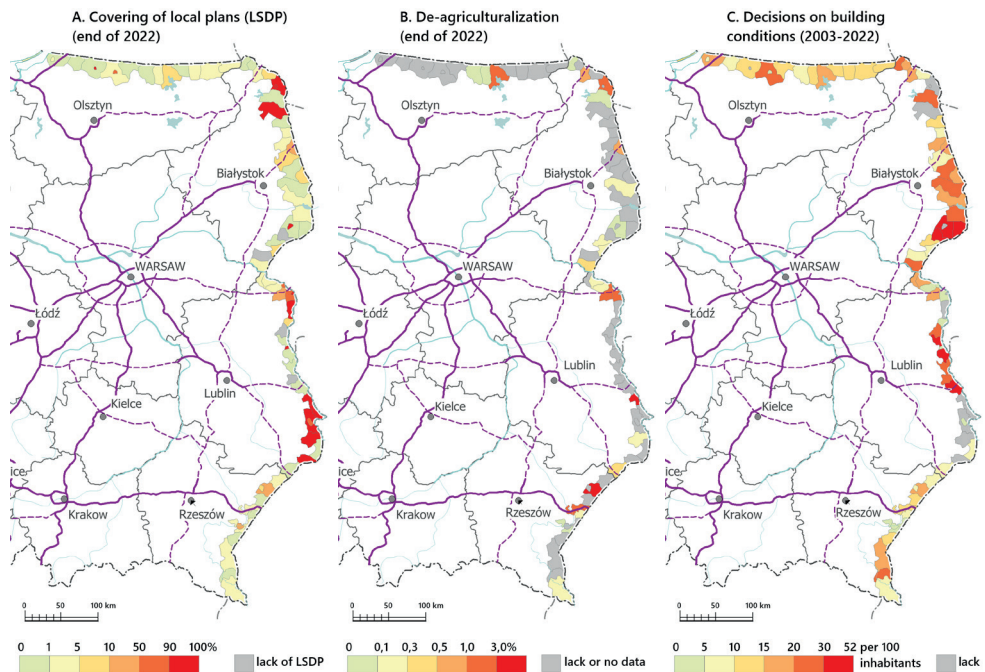


Figure 3. Spatial differentiation to selected characteristics relating to local-level spatial planning
 Source: Ministry of Economic Development and Technology, with data as gathered for all *gminas* by Statistics Poland (2023).

Moreover, the mapped data show that planning coverage (as seen in Fig. 3A) is rather haphazard – to the extent that it is quite rare for neighbouring municipalities to both be characterised by high coverage. Basically speaking, the latter circumstance has only arisen on the so-called ‘knee of the River Bug’ near the border with Ukraine, and in the Terespol area). The most haphazard

circumstances characterise the deforeclosures (Fig. 3B). On the other hand, there is seen (Fig. 3) to be a high intensity of decision-making vis-à-vis development conditions along the border with Belarus (around Białowieża National Park) in particular, as well as close to Ukraine (along the eastern edge of the Łęczyńsko-Włodawskie Lake District). The factor favouring investment pressure here is clearly the recreational-tourist function (as is also the case for the border with Lithuania at Giby, where Lake Wigry National Park and its buffer zone are located).

Results of surveys carried out

As was noted above, the answers of local-authority representatives to questions regarding changes in spatial policy after February 2022 may not be treated as anything more than supplementary information. The limited number of *gminas* whose representatives agreed to respond determines this need for caution as results are interpreted. It is nevertheless worth devoting some attention to two aspects. First, that none of the representatives were anything other than clear in stating that the war's outbreak had not changed their spatial policy in any way. An exception was nevertheless to be noted in the case of the *gmina* of Kleszczele, near the border with Belarus, whose representative noted that less investor interest now surrounded issued decisions on development conditions. Beyond that, there is the evidence supplied from four *gminas* that the outbreak of war had done nothing to modify amendments made to studies of conditions and directions of spatial (physical) development adopted after February 22nd 2022. This offers some support for the contention that the broader planning activity of border *gminas* in 2022 was more of a reflection of some kind of catching up in the aftermath of the COVID-19 pandemic².

Discussion

The *gminas* (units of local-government administration) located along Poland's eastern border are characterised by a peripheral location, which – in conditions of reduced or zero capacity – puts them in an unenviable socio-economic situation to the extent that there is justification for a classification as 'problem' *gminas* (after Śleszyński et al., 2020). In this connection, but also further justifying the contention, is the way in which these localities are amongst those anywhere in Poland to be depopulating most rapidly. The Polish case thus acts in partial support of theses regarding the wider susceptibility of border areas to migration (Hashi et al., 2014). This has been and would be the case even regardless of military operations. On the other hand, in the Polish case, it would seem to be going too far to apply theses derived from other countries regarding some cultural, social or institutional specificity (Peyrony & Denert, 2012; Jacobs, 2016; Pallagst & Hartz, 2022). This is in part a reflection of cross-border cooperation (with Belarus and Russia) having been negligible even some time before Russia redoubled its aggression towards Ukraine. Equally, a resumption of cooperation with Ukrainian localities across the border is to be hoped for as soon as there is a cessation of armed conflict.

An analysis of progress with planning work reveals that some border localities (and notably

² Sample answers are as follows: 'I inform you that the direction of spatial planning in our municipality did not change after the outbreak of the war. In addition, I would like to mention that there have been no significant changes in the design of local plans and amendments to the study.', '(...) in response to your questions, I would like to inform you that the direction of spatial planning in our municipality has not changed after February 2022.'

those with highly valuable tourism-related and recreational features) have been coming under strong investment pressure, even as planning situations prove to be very mosaic-like. Equally, neither the relatively large numbers of changes and updates to local-authority studies on the conditions and directions of spatial development, nor the noticeable activity when it comes to work on local plans can be regarded as in any way related to military operations to the east. Rather, what has been dominating are efforts by *gminas* to continue with or resume work interrupted or slowed down during the pandemic. Equally, this cannot be taken to indicate that work on planning acts took much account of any conclusions for spatial planning that might have arisen directly out of the pandemic involving COVID-19 (Śleszyński et al., 2022, 2023). Indeed, both crisis-related situations can be seen to have collided with *gmina*-level planning culture, and in general institutional weakness, with these reflected in the lack of a broader spatial-planning response to conditions that can be deemed to be “changing” at the very least (Nowak, 2023).

Upscale, this state of affairs hinders wider rationalisation and optimisation activity, e.g. in regional policy. The importance reflects the implementation of a correct, sustainable policy in the field of the tourist and recreational function as referred to (Hasmemi et al., 2019), as well as sensible development along the main road routes along the Schengen border (notably the Suwałki Isthmus); but also the emerging strengthening of economic and trade pressures with Ukraine (route S17). Finally, it is important from the point of view of public security, related to the need for efficient control of the borders with Belarus and Russia by various services (Border Guard, Police, healthcare), as well as the Armed Forces. It is also in the context of these indicated challenges that weaknesses as regard the strategic dimension to spatial planning in Poland tend to stand out. As indicated above, the literature on both spatial planning of border areas and responses to security challenges sees the role of strategic spatial planning made subject to very strong emphasis (Kociuba, 2012; Thoidou, 2013; Perperidou, 2021). In the Polish spatial-planning system, strategic spatial planning, especially in the period under study, proved to be very weak, with little impact on the regulatory sphere. The inertia shown by *gminas* in responding to war-related challenges is therefore due largely to institutional barriers, and a lack of flexibility in planning (Nowak et al., 2022). These weaknesses resulted in a lack of reflection in given *gminas* as to possible changes in the conditions underpinning spatial planning that might, could or will emerge following the outbreak of a major war to the east of the state border.

There do not seem to be any significant differences between the several types of border-located *gminas* subjected to analysis. High and low values for planning coverage, investment pressure and other features of local development were to be found in both those located in the immediate vicinity of a victim state (Ukraine), an aggressor state (represented by the exclave that is Kaliningrad Oblast), a state supporting the aggressor (Belarus), and finally along the short section of border with Lithuania known as the Suwałki Isthmus. What ‘unites’ these areas, thus far beyond other issues, is the above-mentioned peripherality and the deepening demographic depression associated with it. Beyond that main factor, the most-marked differentiation is supplied, not by external pressure as conceived in the broadest sense, but by local features related to attractiveness from the point of view of tourism. Of course, we may not preclude a greater role being played in future, by geopolitical factors or even a war situation, not least in relation to intensified trafficking in human beings or people-smuggling at the Schengen border, with such issues then doing more to determine spatial policies locally.

The research conducted has certain limitations, not least the relatively short period taken

into account and the difficulties associated with obtaining answers to questions asked from representatives of local authorities. It is also necessary to highlight the limitations burdening the analysis of changes in *gminas'* spatial policies. The analyses in question are currently limited by the relatively short period of time that has elapsed, as well as the static nature of the instruments characterising the Polish system of spatial planning (especially given the lengthy procedure needed to enact planning documents). The results presented do therefore offer some basis for further analyses (with the time period extended). Suggested directions of future work might entail:

- analysis of the directions to wartime changes in spatial planning in areas of local administration in Ukraine itself;
- a broader analysis of the specificity of spatial policies in all border *gminas* in Poland, with efforts being made to classify them from the relevant perspective;
- analysis of possibilities related to wider implementation of strategic spatial planning following the amendment of the relevant regulations in 2023.

Moreover, due to peculiarities of economic functioning in border areas (not least given the highly valuable features of landscape identified for them), changes affecting tourism in the areas surveyed can be considered a key direction for further analysis. Changes regarding tourism conditions may have clear knock-in effects in determining directions as regards longer-term spatial planning. In the short term, major variation is to be noted in different areas studied. The extent of this differentiation is not uniform, but is determined by ongoing events: e.g. direct restrictions on the border with Belarus or the intensification of hostilities in Ukraine. A broader analysis of the patterns involved, covering a wider time period, would be very much needed.

Conclusions

The main finding of the research is that there is no major impact of the outbreak of war in Ukraine in February 2022 on the spatial policies being pursued by border-located local authorities in Poland. Nevertheless, such an impact cannot be precluded in the long term, and all the more so as Polish planning procedures take a long time, and as August 2023 brought considerable changes to the planning regulations in force.

At the same time, the research conducted can be deemed to confirm weaknesses of the Polish system of spatial planning already diagnosed in the literature. The challenges and problems arising in connection with the outbreak of wider war in Ukraine clearly highlight the need to strengthen strategic spatial planning and guarantee the integration of development policies. Undoubtedly, units of local-level administration located along the eastern border of Poland ought to be expressing much greater activity and involvement in the field of spatial planning than they actually do. But such an approach and awareness was definitely lacking in the cases we examined.

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