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ECOLOGICAL AND CLIMATIC CHALLENGES FACING DOCUMENTS OF LOCAL DEVELOPMENT STRATEGIES (ON THE EXAMPLE OF LOWER SILESIAN MUNICIPALITIES IN POLAND)

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ABSTRACT: The paper presents the results of a study on how global climate change is reflected in local development strategies. The study included 173 Lower Silesian municipalities and is one of those rarely undertaken in the Polish literature. They were based on original studies of local development strategies carried out between 2016 and 2022, as well as interviews with those responsible for preparing and updating these documents. The research covered 250 local development strategies developed for 173 Lower Silesian municipalities (existing and updated).

The authors briefly discussed the importance of development strategies in the functioning of municipalities and local communities. The main formal and substantive mistakes made in such documents are also presented. The main element of the presentation was the ways (forms) and the extent to which global climate change is reflected in municipal development strategies. The study has confirmed the main hypothesis that global climate change is insufficiently addressed at the local level in the analysed municipalities.

KEYWORDS: global climate change, local development strategies, municipalities, Lower Silesia

Introduction and Research Methodology

Lower Silesia is a historical region, administratively a separate province. It is located in the southwestern part of Poland. It has an area of 19,947 square kilometers (6.4% of the country) and a population of 2,883 thousand. The capital of the region is Wrocław. The region includes 26 counties and 173 municipalities. There are 93 cities in the region.

The region has a diverse area, which includes lowland areas, highlands and the Sudeten mountain range (the highest peak is Śnieżka, 1603 meters above sea level). The water network includes the Oder River and its tributaries. The natural environment is very diverse, with high biodiversity. The region has 2 national parks, 12 landscape parks, 67 nature reserves, 27 areas of protected landscape, 2511 natural monuments and many Natura 2000 areas. However, the region feels strong anthrop pressure, resulting from more than a thousand years of human settlement.

The region is characterised by a very rich historical and cultural heritage, with tangible (cultural monuments) and intangible (history, traditions, customs) character.

The region is rich in raw materials, especially hard coal and lignite, metal ores, salts, and rock resources. The region is one of the most economically developed in Poland. The region's gross domestic product covered almost 9% of the country's total. The gross domestic product per capita was the second in the country, which was 61.9% of the average GDP in the European Union. The region has developed industry, agriculture, good soil transportation and other services. The development potential of the region is high.

Environmental issues in municipal information policies take different forms – both from the point of view of its subject matter and its goals or means of implementation. In the majority, they are the local environmental challenges that are most important and best recognised within the municipality and by its residents and are in line with the Agenda 21 principle, “think globally, act locally”.

Given the awareness of global climate change issues, only a few of them arise locally and go beyond the municipality. There are fewer problems that relate to global issues, although many such challenges arise at the local level (Czaja & Becla, 2007). Those implementing municipal information policies are not always aware of that situation because it is a completely different scale of problem formation and understanding. Such a situation is related to global climate change. In the case of many studied municipalities, one has to look carefully for mentions of a particular issue, and the comments and information presented are not directly related to local climate impacts.

The studies conducted for Lower Silesia municipalities confirm some shortcomings that exist in local information policies, including in understanding and responding to global climate change. Recipients of information should have an adequate level of consumption of such information. Meeting this condition is by no means easy, even under the conditions of the information society. They enable the dissemination of information but do not condition its effective consumption. This is because it depends on the knowledge, awareness, and motivation of the information recipients.

The research problem of the study underlying this paper was to identify the forms and scope of taking global climate change into account in municipal development strategies and accompanying documents. The main objective of the study was to analyse local development strategies in all 173 municipalities in Lower Silesia in this aspect. The research hypothesis is as follows: the issue of global climate change is insufficiently addressed in municipal strategic documents. The research methodology used was based on the analysis of municipal development strategies, not only those attributed to being based on the idea of sustainability and durability.

Each of the strategies was analysed to identify which of its goals and specific undertakings are related to climate impacts at the local level. In doing so, the extent to which the individual strategy documents meet the conditions defined by the idea of sustainable and durable development was examined, as well as what mistakes were made in them. This is because the latter was linked to an overall assessment of the quality of individual development strategies and the strength of the links between local plans, goals, actions, and global environmental challenges, including climate change.

250 strategic documents developed and approved in 173 municipalities in Lower Silesia were examined. The survey was local in nature. It concerned only the Lower Silesia region, which is one of the active ones in terms of the functioning of municipalities in Poland. The survey was conducted between 2016 and 2022. In Poland, there are no legally binding standards for the development of local development strategy documents. In this regard, municipalities have a certain freedom. For the most part (90%), these documents are developed by external entities (consulting companies).

The study of strategic documents consisted of (1) identification of specific elements within them; (2) verification of the correctness of their understanding by the authors of strategic documents in the context of the achievements of modern science; (3) expert assessment of the importance of a given element for the strategic document as a whole. The combined result of these activities determined the importance of the examined element in a given strategic document.

Among the most important elements sought in the strategy documents were in the studies conducted: (1) exposing the idea of sustainable develop-

ment; (2) accounting for global climate change; (3) reducing greenhouse gases; (4) reducing dust in the local air (smog); (5) improving air quality in spa and resort communities; (6) programs for the greening of the municipality; (7) greening of business activities; (8) educational projects for children and adults on global climate change; (9) actions to reduce negative impacts on global climate change (Table 1).

The study also took into account the main formal and substantive errors accompanying the creation of strategic documents and the implementation of local development strategies, which were the subject of separate studies. They have, in the opinion of the authors, a direct impact on the main objective of the analysis, which was to identify and determine the role of ecological and climatic challenges in the strategic documents of local development prepared for the municipalities of Lower Silesia.

A brief review of the literature

In general, the literature review should include studies that combine two important issues, i.e. global climate change and local development strategies. In analysing the literature related to the present paper, the authors made the following research methodological assumptions: i.e. (1) they do not present the extremely rich literature on global climate change; (2) they do not present the extensive literature on local development strategies; and (3) they limit the review to items combining both issues that are found in the Polish literature. In the latter case, the specifics of the development of local self-government and the functioning of local communities in Poland, especially in the Lower Silesia region under study, are important. This is an important difference in the context of the subject of the study. The adopted methodological assumptions limit the number of literature to a much smaller number of studies.

Among those few worth highlighting are the studies on local development strategies carried out between 2016 and 2022 by academics from the Wrocław University of Economics and Business and the Wrocław University of Science and Technology. Their results were presented in several articles and conference papers. Expanding and deepening these studies, however, require additional resources that, for the time being, are unavailable both at universities and in municipalities. These studies have focused primarily on assessing the nature of local development strategies and other municipal supporting documents, including their features and the most common shortcomings (Becla, 2017; Becla, 2018a; Becla, 2018b; Becla & Czaja, 2016; Tutaj, 2018).

Local development strategies have not attracted comprehensive attention. It tends to be individual, within a particular municipality, and political and ideological rather than substantive. Thus, it is difficult to find studies that attempt to look at these documents more broadly and collectively. In addition, this situation is reinforced by several processes and phenomena of public life. **The first** is the common practice of outsourcing the preparation of a local development strategy to external consulting firms through a public tender. This results in template documents prepared according to the lowest cost criterion, which rarely means an adequate quality of the final product. **The second** shows that the individual municipal strategies are not treated together as a set of system documents with a regional character. This is because there is no presumption that such documents should express compatibility with one another or be compatible with regional or national documents, not to mention those of the EU. **The third** indicates that the handling of development strategies at the level of their implementation may be controversial. And **the fourth** emphasises that the situation is further perpetuated by the low level of development of civil society and the lack of reported expectations and needs from residents in relation to strategic documents. This type of approach to local strategic documents results in the limitations of studies that comprehensively analyse related problems. This is evident in the part of the literature that deals with global climate change and local responses to it. There are few such studies in the Polish literature, and such a situation applies to both ecological and economic literature, as well as literature focusing on the problems of local government units and local communities (Ziemia, 2017).

In the 1990s and early 2000s, studies emerged on how to build a local development strategy (Nowińska, 1997; Wysocka & Koziński, 1999; Stando, 2013). The publication activities of a consulting nature of the Foundation in Support of Local Democracy (Imiołczyk, 2006) during the same period are worth highlighting. Centralisation trends and processes that grew in the subsequent decades have reduced this type of action directed at municipalities and other local government units.

Publishers also featured more general studies on strategic management in local government, but these did not emphasise the importance of environmental challenges (Gawroński, 2010). Studies on specific challenges of local and regional economies have also been undertaken in individual academic centres, but focusing on selected municipalities, counties or local government provinces (Brol, 2004; Adamowicz, 2003; Klasik & Kuźnik, 2001).

The studies presented in *Ekonomia i Środowisko* (Economics and Environment), prepared under the auspices of the Polish Association of Environmental and Resource Economists, have also played an important role in the process of expanding studies on the significance of environmental challenges

at the level of local communities and local government units (Szkudlarek & Milczarek, 2014). The publishing activities carried out under the guidance of Prof. Bazyli Poskrobko within the project “Programme for dissemination of scientific achievements in the field of sustainable development and knowledge-based economy” (Poskrobko, 2010a; Poskrobko, 2010b; Poskrobko, 2011a; Poskrobko, 2011b; Poskrobko, 2011c; Poskrobko, 2009), was also important. However, direct references to environmental issues in local development strategies and municipal information policies can only be found in works from the second decade of the 21st century (Becla & Czaja, 2016; Becla, 2017; Becla, 2018b; Becla, 2019).

In the Polish literature on local government issues, especially more recent ones, we find not very many studies focusing on (1) the information policy of individual selected municipalities in the form of case studies (Dzwonkowska-Godula, 2018) and (2) the analysis of specific tools of municipal information policy, such as the local press or the Internet (Szostok & Rajczyk, 2013). There have also been individual studies relating more generally to the issue of social communication of local government (Wyszomirski & Chruściel, 2015; Szostak-Nowacka, 2019) or the role of information policy in municipal management (Fleszar, 2015; Szostok & Rajczyk, 2013).

The literature of an international nature on municipal information policy can be divided into several generic groups, namely:

- 1) studies on European solutions prepared by Polish authors (Popławski, 2017; Radzik-Maruszak, 2019),
- 2) German studies discussing solutions used in German local governments, with different traditions and experiences (Kersting, 2016; Kost & Wehling, 2010),
- 3) studies prepared in English relating to the more general experience of European Union countries (Hlepas et al., 2018),
- 4) studies prepared based on the local experience of such societies and countries as France, Spain, Italy, and Switzerland.

However, they refer to different conditions compared to the experience of local government in the studied region of Lower Silesia. Therefore, it is difficult to relate the conclusions contained in them to the results realised by the authors of the study.

The importance of strategies and strategic documents in the functioning of municipalities and local communities

Strategy as a concept and a way of planning for the future is highly documented in the literature. The literature discusses existing ways of interpreting this category, and there is a considerable number of such ways. Discus-

sions are also underway on the advantages and disadvantages of each definition. Undoubtedly, this is a valuable part of the development of research and its language in this area.

The preparation of a municipal development strategy is most often done in one of the following ways:

- the municipal office, with the support of residents, prepares a development strategy in its entirety, which is rare, especially in rural municipalities,
- the strategy is developed by a team selected by the municipality, which is supported by consultations offered by municipal officials and interested residents,
- the external company (team) prepares a draft municipal development strategy, which is submitted to the office, which can make changes without the participation of the team preparing the draft.

The final municipal development strategy is adopted by the municipal council. However, the method of approval through a referendum, which seems more reasonable, is not used.

The problem of effective implementation of the goals contained in local development strategies may be due to several reasons, i.e.:

- 1) the unrealistic nature of the strategy exceeds resource and human capacity, thus breaking one of the most important criteria for human action,
- 2) adopting an *a priori* assumption that the strategy is only a formal document, without the obligatory nature of implementation, which was encountered especially in the first years of the construction of local self-government in Poland, which, at the same time, meant wastefulness of preparatory activities,
- 3) the inability of those responsible for implementing the strategy to achieve their goals in practice or,
- 4) changing political acceptance of the previously adopted local development strategy.

In order to avoid these risks, especially the last one, it is important that the preparation of the strategy itself takes place under conditions of social consensus. This allows the strategy itself to be considered an environmentally acceptable document.

In addition, it is important that strategic documents are considered as studies, the implementation of which would be obligatory at the municipal level and, therefore, an appropriate system of its monitoring (control) should be implemented to check its progress. A strong political and social will to implement the strategy held in the municipality must also be present. This implies an adequate level of civil society sophistication in the local domain.

Main formal and substantive errors of local development strategies

The growing importance of the Internet and the emergence of an information society and knowledge-based economy is generating both familiar and new flaws in the information policy of Lower Silesia local government. The most common information policy mistakes at the municipal level include the following (Becla, 2017):

- 1) lack of a systematic survey of residents' needs and expectations regarding information policy, which is the most common shortcoming of municipal information policies, and which is true for 85% of Lower Silesia municipalities,
- 2) lack of addressed, individualised interpersonal communication and information exchange, which is encountered in 75% of the surveyed municipalities,
- 3) limiting the information policy to mandatory activities, observed in 70% of the surveyed municipalities,
- 4) low information efficiency of municipal information policies, observed in 60% of the surveyed municipalities,
- 5) continuing systematic state of asymmetry of information between the authority and the inhabitants, typical of half of the Lower Silesia municipalities surveyed,
- 6) low effectiveness of municipal information policies in delivering information to the public, characteristic of 50% of the surveyed municipalities,
- 7) the overwhelming dominance of traditional communication techniques in municipal information policies reflected in 40% of municipalities,
- 8) delays in adaptation to civilisational changes expressed by the formation of the information society and the knowledge-based economy found in 35% of municipalities and,
- 9) alienation of local government from local communities was observed in 30% of the municipalities surveyed.

The first, very important mistake limiting the development of the idea of local self-government is the frequent lack of direct (addressed by name) and unaddressed communication with residents. This phenomenon occurs in almost $\frac{3}{4}$ of the surveyed municipalities. Municipal offices, although they have specific addresses, rarely direct their information to particular individuals. This addressed form of providing information is generally more effective than other ways. This is because it creates more personal relationships and better involves residents in the local community's problems. Not until recent years have municipal officials begun to appreciate the value of such contacts with residents, not only during election campaigns.

The second observable phenomenon is the alienation of authority combined with the phenomenon of a sense of superiority or even “mission” among officials. Such a situation was observed in 30% of the surveyed municipalities. This leads to a situation of lack of ties between local government institutions and residents, and offices and officials are perceived as “foreign” elements in the local structure. This is not conducive to building an adequate level of civic participation and interest in projects that affect residents’ living conditions. Evidence of alienation can be seen, for example, in the low knowledge of top municipal officials (heads of the communes, mayors or presidents), as well as their own representatives on municipal councils. Evidence of low participation is seen in the indicators of participation in local elections, as well as the fading role of local political (electoral) programmes.

The third one shows that in 40% of the municipalities surveyed in Lower Silesia, there is a strong preference for traditional ways of informing residents, which include bulletin boards, official letters, flyers and information materials, oral transmission of news, and even the use of local institutions (schools, parishes, libraries, municipal social welfare centres or cultural centres). This situation may be due to the relatively low level of trust in electronic media among municipal officials, who, while using them, do not understand their importance in modern society and their growing role in interpersonal and social communication.

The fourth reveals that offices and individual officials do not avoid making other mistakes, either, e.g. creating situations of information asymmetry and seeing it as a way of strengthening their power and authority (thus establishing an information monopoly). This phenomenon could be observed in half of the surveyed municipalities. Furthermore, they rely on the use of information with a low level of reliability, not based on scientific and expert procedures. Municipalities rarely commission studies from relevant institutions, such as economic analysis or studies of the quality of the natural environment. This deepens the phenomenon of asymmetry, causing an increase in the reliance on official interpretations as correct, reliable or true, which is not always confirmed by the facts. Fulfilment of certain duties does not make anyone, by definition, an expert in the field.

The fifth indicates that the last two decades have brought the very rapid development of the information society and the knowledge-based economy, with all the consequences of these processes, which seems to have surprised both many policymakers and people who are not coping with various forms of information overload, information exclusion and new social relations. This creates major problems in more than a third of the municipalities surveyed, resulting in a delay in adapting to these civilisation changes.

A common mistake is a failure to survey the needs and preferences of residents. This situation occurred in 85% of the surveyed municipalities.

There are few municipalities nationwide that monitor residents' needs and preferences, even in the form of random or episodic surveys. More often than not, these needs and preferences are formulated on the basis of very fragmentary information and often wishful thinking on the part of the officials themselves.

A random survey conducted by the author confirmed in half of the cases the relatively low effectiveness of municipal information policies in providing information to residents. The unfavourable situation is exacerbated by two factors. The first is the passive attitude of many residents who do not manifest information needs regarding their immediate environment. The second is the lack of monitoring of the effectiveness of municipal information policies by local government offices and their employees (or officers). This entails the dominance of closed, i.e. information-based rather than communication-based, models for these policies.

The situation regarding the low information effectiveness of municipal information policies is even more difficult. In 60% of the municipalities surveyed, no such analysis is conducted or outsourced. These are not methodologically or substantively straightforward studies, which may suggest that they are carried out by specialised teams.

A shortcoming in the functioning of local government institutions is also quite often the restriction of activity to statutory tasks, excluding many very important local problems. In the case of information obligations, as many as 70% of the municipal offices surveyed were limited to such activities.

Climate change issues in municipal development strategies

All of the surveyed municipalities in Lower Silesia have their own development strategies. They can be verbally (by name) and factually (by content) divided into two main groups, i.e. strategies based on the idea of sustainable and durable development and strategies that do not present such an idea, based rather on the traditional understanding of the quality of life and socio-economic well-being. There are, of course, some factual differences in the evaluation of individual municipal development strategies, which depend on the understanding of the idea of sustainable and durable development. For example, few strategies conceive of the idea as enhancing the quality of life and general well-being of the population, so it is closer to the approach of traditional development economics.

The municipal strategies were subjected to the author's assessment of the extent to which they met the conditions for sustainability and the durability of local development that had been adopted as applicable. Note that the study did not take into account whether the strategy was and is being imple-

mented and the degree of actual execution of the strategic goals. The assessment focused on the formal forms of the strategic documents held by the municipality, so analyses of the declarative side, rather than the actual dimension of municipal development strategies, took place.

The issue of global climate change can appear in municipal development strategies in various forms, i.e.:

- 1) At the micro and meso (regional) levels as:
 - ongoing programmes aimed at reducing greenhouse gas emissions,
 - ongoing programmes aimed at reducing air pollutant emissions and immissions,
 - ongoing programmes aimed at improving air quality in health resorts and leisure municipalities,
 - ongoing programmes for greening municipalities,
 - ongoing goals for pro-environmental business activities.
- 2) At the macro level as:
 - ongoing educational projects aimed at raising knowledge about global climate change and deepening environmental awareness, targeting children and adults,
 - ongoing projects to provide information on climate change, sourced from various external sources,
 - implemented projects with livelihood and housing innovations, logistics and communication developments, and life and consumption innovations that lower climate impacts.

When projects target greenhouse gas emissions, they very rarely rely on local targets and their own financial resources; rather, they are often limited to brief news stories about disputes, initiatives and solutions to global greenhouse gas emissions. These are sometimes applied to local conditions and incentives in terms of thermal insulation of houses, better energy-efficient heaters, less carbon-emitting sources, etc. These appeals are rarely supported with municipal funding.

More varied are the ideas related to reducing emissions and immissions of particulate matter that make up municipal and transport smog. Since these are local phenomena and directly affect the quality of life of residents, they are of greater interest to municipal authorities. There are also other instruments and ways to support pro-climate measures. The following can be mentioned here:

- financial and logistical support for regional anti-smog initiatives (anti-smog resolutions of the regional parliament),
- development of pro-climate collective energy, for example, collective boilers or heating plants,
- development of anti-smog organisation of transport traffic in the municipality, including the construction of bypasses,

- expansion of public transport in the municipality,
- financial and logistical support for anti-smog projects, such as new heater installations,
- monitoring dust emissions with drones and social control (reporting on emitters),
- demonstrating the role of municipal offices in climate protection (using bicycles, heating civic buildings with renewable energy sources).

Table 1. Characteristics of local development strategies of Lower Silesian municipalities in 2016-2022

Feature of the local development strategy document	The number of strategic documents with a given feature to the total number of examined documents of this type
Exposing the idea of sustainable development	171/250
Accounting for global climate change	131/250
Reduction of greenhouse gases	97/250
Reduction of dust in the local air (smog)	199/250
Improving air quality in spa and resort communities	32/55
Programs for greening of the municipality	57/250
Greening of business activities	220/250
Educational projects for children and adults on global climate change	35/250
Actions to reduce negative impacts on global climate change	220/250

Particular activity in this area has emerged in health resort municipalities, of which there are eleven in Lower Silesia and in municipalities whose development strategies are based on medical services, tourism, recreation, or leisure. This is understandable given their nature. The second group of municipalities showing greater interest in anti-smog measures is formed by local entities where the phenomenon of municipal and transport smog is particularly troublesome and the pressure of residents on municipal authorities to reduce it is strong.

Municipalities are also more willing to undertake projects aimed at greening and making such areas available to residents for recreational and leisure purposes. Such activities are widely reflected in urban municipalities implementing the “smart city” approach, stemming directly from the strategy of sustainable and balanced development and the creation of an information society.

There is a much smaller proportion of municipalities that take a broader approach to global climate change or environmental problems and try to create the right conditions for environmentally friendly economic activities in their area, which is twofold. On the one hand, this applies to actors in the local economy; on the other, it applies to potential investors who are invited to start economic activity. Only one in ten municipalities surveyed is actually interested in pro-environmental economic activity. If the goals of launching production activity are included in local development strategies, its criteria tend to be financial rather than pro-environmental. A potential investor must first and foremost be encouraged and attracted, and additional environmental requirements are more of a hindrance.

The more general macro level is primarily concerned with education and communication activities. However, environmental education projects in Lower Silesia municipalities are limited to supporting activities at the level of formal education and, therefore, involve elementary schools and kindergartens. The traditions in this area vary in quantity and type. There are more activities in cities, such as Wrocław, Jelenia Góra, Legnica, Świdnica, Wałbrzych, Lubin, and Głogów, while they are less frequent in rural municipalities.

Educational activities and the formation of environmental awareness are becoming primarily the task of the mass media, especially the Internet, and the people themselves. Local government institutions rarely address these challenges more broadly and professionally. This means that little information related to climate change is presented as part of municipal information policies and the preparation of local strategic documents. It should also be borne in mind that these problems are not only substantive challenges but also political-ideological ones contested by some politicians, parties, or worldview-religious groups, and local governments do not want to initiate such disputes.

There is even less evidence in the local development strategies of information on living-housing (excluding thermal insulation measures and new heaters), logistics-communication (excluding changes to traffic organisation in town centres), and living-consumption projects that reduce climate impacts. This is especially true in rural or urban-rural municipalities. They are of interest to foundations, associations and other environmental organisations but are not usually part of local development strategies. The inclusion of organic farming or sustainable tourism, for example, means that additional funds need to be set aside to support such activities, and municipalities have little capacity to do so without external support. Moreover, in many cases, municipal institutions do not feel competent to take such complex actions.

Summary

The analysis of local development strategies in the Lower Silesia region confirmed the main research hypothesis, according to which the issue of global climate change is insufficiently reflected in these documents. One might even conclude that there is low awareness of the relationship between climate change and local policies, i.e. energy, environmental or economic, and the behaviour of individual households. Partial surveys of the environmental knowledge and awareness of residents of municipalities confirm significant shortcomings in understanding the relationship between the local and global levels. Such a situation implies the need to take action in the following directions: (1) to systematically increase the knowledge and environmental awareness of both residents and municipal officials; (2) to support the pro-environmental activities of municipalities by government agencies, which will also strengthen the effectiveness of national environmental and energy policy; and (3) to facilitate the access of municipalities and local communities to external funding – both national and those from the European Union.

The contribution of the authors

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References

- Adamowicz, M. (2003). *Strategie rozwoju lokalnego. Tom I. Aspekty instytucjonalne*. Warszawa: Wydawnictwo SGGW. (in Polish).
- Becla, A. (2017). Wybrane problemy gminnych polityk informacyjnych w świetle badań empirycznych. *Społeczności lokalne. Studia interdyscyplinarne* (1), 115-132. (in Polish).
- Becla, A. (2018a). *Pozyskiwanie, wykorzystanie i ochrona informacji w warunkach gospodarki opartej na wiedzy i społeczeństwa informacyjnego*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu. (in Polish).
- Becla, A. (2018b). Wiarygodność źródeł informacji ekologicznej (na przykładzie gmin Dolnego Śląska, Ziemi Lubuskiej, Wielkopolski i Opolszczyzny). *Społeczności lokalne. Studia interdyscyplinarne* (2), 83-102. (in Polish).
- Becla, A. (2019). Perspektywy samorządności lokalnej w społeczeństwie informacyjnym. *Społeczności lokalne. Studia interdyscyplinarne* (3), 109-125. (in Polish).
- Becla, A., & Czaja, S. (2016). Samorządność terytorialna w społeczeństwie informacyjnym i dobie Internetu. In M. Adamczyk & W. Olszewski (Eds.), *Społeczności lokalne. W 25-lecie odrodzonej samorządności. Perspektywa interdyscyplinarna* (pp. 149-163). Polkowice: Wydawnictwo Uczelni Jana Wyżykowskiego. (in Polish).
- Brol, R. (2004). Gospodarka lokalna i regionalna w teorii i praktyce. *Prace Naukowe Akademii Ekonomicznej we Wrocławiu*, 1023, 253-261. (in Polish).

- Czaja, S., & Becla, A. (2007). *Ekologiczne podstawy procesów gospodarowania*. Wrocław: Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu. (in Polish).
- Dzwonkowska-Godula, K. (2018). Polityka informacyjna i komunikacyjna władz samorządowych. Studium przypadku wiejskiej gminy Zgierz. *Studia Obszarów Wiejskich*, 51, 27-45. (in Polish).
- Fleszar, D. (2015). Rola polityki informacyjnej w zarządzaniu jednostką samorządu terytorialnego. *Zeszyty Naukowe Wyższej Szkoły Humanitas – Zarządzanie*, 3, 187-203. (in Polish).
- Gawroński, H. (2010). *Zarządzanie strategiczne w samorządach lokalnych*. Warszawa: Wolters Kluwer Polska. (in Polish).
- Hlepas, N., Kersting, N., Kuhlmann, S., Swianiewicz, P., & Teles, F. (Eds.). (2018). *Sub-municipal Governance in Europe. Decentralization beyond the municipal tier*. London: Palgrave Macmillian.
- Imiołczyk, B. (2006). *ABC samorządu terytorialnego*. Warszawa: Fundacji Rozwoju Demokracji Lokalnej.
- Kersting, N. (2016). *Urbane Innovation*. Wiesbaden: Springer VS.
- Klasik, A., & Kuźnik, F. (2001). *Zarządzanie strategiczne rozwojem lokalnym i regionalnym*. Katowice: Wydawnictwo Akademii Ekonomicznej w Katowicach. (in Polish).
- Kost, A., & Wehling, H.-G. (2010). *Kommunalpolitik in den deutschen Ländern: Eine Einführung*. Springer – Verlag.
- Kozłowski, I. (1997). Polityka informacyjna gminy. In J. Regulska (Ed.), *Grochem o ścianę. Polityka informacyjna gminy* (pp. 29). Warszawa: Wydawnictwo Samorządowe FRDL. (in Polish).
- Michałowski, S., & Mich, W. (Eds.). (2006). *Władza lokalna a media. Zarządzanie informacją – public relations – promocja jednostek samorządu terytorialnego*. Lublin: Wydawnictwo Uniwersytetu Marii Skłodowskiej-Curie. (in Polish).
- Nowińska, E. (1997). *Strategia rozwoju gmin na przykładzie gmin przygranicznych*. Poznań: Wydawnictwo Akademii Ekonomicznej w Poznaniu. (in Polish).
- Popławski, M. (2017). *Samorząd terytorialny w Królestwie Szwecji*. Toruń: Wydawnictwo naukowe GRADO. (in Polish).
- Poskrobko, B. (Ed.). (2009). *Zrównoważony rozwój gospodarki opartej na wiedzy*. Białystok: Wydawnictwo Wyższej Szkoły Ekonomicznej w Białymstoku. (in Polish).
- Poskrobko, B. (Ed.). (2010a). *Ekonomia zrównoważonego rozwoju. Materiały do studiowania*. Białystok: Wydawnictwo Wyższej Szkoły Ekonomicznej w Białymstoku. (in Polish).
- Poskrobko, B. (Ed.). (2010b). *Ekonomia zrównoważonego rozwoju. Zarys problemów badawczych i dydaktycznych*. Białystok: Wydawnictwo Wyższej Szkoły Ekonomicznej w Białymstoku. (in Polish).
- Poskrobko, B. (Ed.). (2011a). *Ekonomia zrównoważonego rozwoju w świetle kanonów nauki*. Białystok: Wydawnictwo Wyższej Szkoły Ekonomicznej w Białymstoku. (in Polish).
- Poskrobko, B. (Ed.). (2011b). *Kształtowanie teorii i wdrożeniowe aspekty zrównoważonego rozwoju*. Białystok: Wydawnictwo Wyższej Szkoły Ekonomicznej w Białymstoku. (in Polish).
- Poskrobko, B. (Ed.). (2011c). *Uwarunkowania rozwoju zrównoważonej gospodarki opartej na wiedzy*. Białystok: Wydawnictwo Wyższej Szkoły Ekonomicznej w Białymstoku. (in Polish).

- Radzik-Maruszak, K. (2019). *Rada Gminy jako uczestnik lokalnego współrzędzenia. Przykład Anglii, Finlandii, Polski i Słowenii*. Warszawa: Wydawnictwo Naukowe Scholar. (in Polish).
- Społeczności lokalne – studia interdyscyplinarne*. Seria wydawnicza Uczelni Jana Wryzykowskiego z lat 2016-2022. (in Polish).
- Stando, A. (2013). Model procedury budowy strategii rozwoju jednostki samorządu terytorialnego. *Biblioteka Regionalisty*, 13, 247-266. (in Polish).
- Szkudlarek, P., & Milczarek, A. (2014). Rola społeczeństwa informacyjnego w kreowaniu zrównoważonego rozwoju. *Ekonomia i Środowisko*, 50(3), 231-242. (in Polish).
- Szostak-Nowacka, P. (2019). Co samorząd musi w komunikacji? O komunikacyjnych aspektach realizacji postulatu upodmiotowienia społeczności lokalnych. In M. Mazur & M. Kornacka-Grzonka (Eds.), *Komunikowanie lokalno-regionalne w dobie społeczeństwa medialnego. Tom II. Aspekty polityczne, społeczne i technologiczne* (pp. 47-63). Katowice: Wydawnictwo Uniwersytetu Śląskiego. (in Polish).
- Szostok, P., & Rajczyk, R. (2013). *Komunikowanie lokalne w Polsce. O instrumentach polityki komunikacyjnej samorządów*. Katowice: Wydawnictwo Gnome. (in Polish).
- Tutaj, J. (2018). Strategie rozwoju w jednostkach samorządu terytorialnego. *Społeczności lokalne. Studia interdyscyplinarne* (2), 35-44. (in Polish).
- Wysocka, E., & Koziński, J. (1999). *Strategia rozwoju województw i gmin – teoria i praktyka*. Warszawa: Wydawnictwo Zachodnie Centrum Organizacji. (in Polish).
- Wyszomirski, A., & Chruściel, T. (2015). Komunikacja społeczna samorządu terytorialnego. *Przedsiębiorczość i Zarządzanie*, (16), 389-400. (in Polish).
- Ziemia, E. (2017). *Zrównoważone społeczeństwo informacyjne*. Katowice: Uniwersytet Ekonomiczny w Katowicach. (in Polish).