
The Role and the Importance of Social Capital in the Green Transition of an Industrialized Region during Crisis Economy

Submitted 06/07/21, 1st revision 23/07/21, 2nd revision 18/09/21, accepted 10/10/21

Agnieszka Lorek¹, Wiesław Koczur²

Abstract:

Purpose: The objective of the presented study is to diagnose the readiness of Polish society for a "green" economic transition.

Design/Methodology/Approach: The primary research methods applied in this article are analyzing domestic and foreign subject literature, strategic documents, and available statistical data. In order to better illustrate the issue of the social capital significance for the "green" transition, a survey was used among the inhabitants of the Silesian Province. The survey was conducted as part of the statutory research of the Department of Social and Economic Policy at the University of Economics in Katowice at the turn of 2019/2020. Using the questionnaire survey method, the study was carried out by a specialized research unit of the University of Economics in Katowice: Research and Development Centre. It was conducted based on a sample of 300 inhabitants of the province.

Findings: The survey performed among the inhabitants of the Silesian Province allowed for assessing the current level of environmental awareness. Analyzing the research results, it can be concluded that nature, as an essential value, exists in the minds of the inhabitants of the Silesian Province. Nonetheless, this awareness is not necessarily related to the readiness to act for the benefit of nature protection. The indicated state of affairs is a vital challenge in terms of environmental education of the province's inhabitants under study, especially in the implementation of the Regional Just Transition Plan for the Silesian Province 2030.

Practical Implications: The results of research and analyses presented in the article may be helpful in the context of the implementation of green transition programs in Poland, especially the Regional Just Transition Plan for the Silesian Province 2030.

Originality/Value: So far, the issues discussed in this study (especially about the Silesian Province) have not been the subject of broader interest in the economic literature. The research results shown in the text have not been previously published.

Keywords: Green economy, green transformation, sustainable development.

JEL Classification: O1, O2.

Paper Type: Research Paper.

¹Dr. hab., University of Economics in Katowice, Department of Social and Economic Policy, agnieszka.lorek@ue.katowice.pl;

²Dr. hab., University of Economics in Katowice, Department of Social and Economic Policy, wieslaw.koczur@ue.katowice.pl;

1. Introduction

The economic and social crisis, which has affected many economies worldwide, has drawn attention to the need for major structural reforms in the economy. Many countries see opportunities in taking anti-crisis measures, which should direct the economy towards the so-called "greener path" of development. Transforming the economy onto the green development path will require metamorphoses in competencies, improvement, innovation, organizational governance, and social awareness. Such a transformation requires passive social acceptance and an active, pro-environmental society, whose primary subject is the "green" citizen (Lorek, 2016; Szyja, 2015).

The importance of social capital, covering certain attitudes, ties, and social networks, including the potential for cooperation embedded in interpersonal relationships and social norms, used on a regional and local scale, cannot be overestimated in the process of green economic transformation (Sicińska, 2011; Działek, 2016). The objective of the presented study is to diagnose the readiness of Polish society for a "green" economic transition. The Silesian Province was used as an example in the research process. Obtaining information on citizens' environmental awareness and pro-ecological behavior is indispensable for politicians and companies searching for new investment opportunities.

2. Literature Review

The current crisis related to the COVID-19 pandemic coexists with a growing global ecological crisis. It should be emphasized that, apart from the climate crisis, we are also threatened by a biodiversity crisis: a dramatically rapid decline in the population of wild animals and the destruction of natural ecosystems, including natural forests and wetlands, which play a crucial role in mitigating and adapting to climate change. The indicated crises burdening various sectors and social groups and highlighted the weakest points of the current socio-economic system (Bukowski, Leszczyński, and Wetmańska, 2020). It has become necessary to look for solutions aimed at improving the pointed-out state of affairs. An opportunity for this is seen in the implementation of the concept of the Economic Green Deal, which is described as the transition from a traditional economy, characterized by extensive production and consumption, to a green economy (low-emission, resource-efficient), at the same time influencing the growth of human well-being (indirectly increasing the quality of life) and ensuring social equality (Scoones, Leach, and Newell, 2015; Georgeson, Maslin, and Poessinouw, 2017).

One of the most important "green" transformation strategies globally is the EU's European Green Deal. This strategy focuses primarily on technological and economic transformation. The most crucial target of the Green Deal is "transforming the European Union into a fair and prosperous society, living in a modern, resource-

efficient and competitive economy that in 2050 will reach zero net greenhouse gas emissions, and where economic growth is decoupled from the use of natural resources" (Communication from the Commission to the European Parliament, the European Council, the Economic and Social Committee and the Committee of the Regions. The European Green Deal COM (2019) 640 final, Brussels 11/12/2019; Fetting, 2020; Ananicz, Buras, and Smoleńska, 2021). One of the goals of green transformation is also to prevent a pandemic-induced recession and create new, sustainable jobs. The climate mentioned above ambitions of the European Union will directly translate into the activities of many entrepreneurs; this strategy will also conceive solid incentives for economic development. The long-term budget of the European Union (MFF – Multiannual Financial Framework) will support its implementation. For 2021-2027, it amounts to EUR 1 074.3 billion (prices of 2018). Along with the Next Generation EU reconstruction instrument, worth EUR 750 billion, it will allow the European Union to provide EUR 1.8 trillion in funding in the coming years to support recovery from the COVID-19 pandemic and to finance the EU's long-term climate priorities (EU Council and European Council).

The elements of ecological recovery are also included in the strategies of other economic powers such as the USA (The Biden-Harris Administration Immediate Priorities; National Strategy For The COVID-19 Response and Pandemic Preparedness), as well as China (Pesce, Tamai, Guo, Critto, Brombal, Wang, Cheng, and Marcomini, 2020). However, it should be noted that despite China's plans to implement many essential policies in sectors that affect climate change, the country is still not on a decisive low-emission transition path (Climate Action Tracker, 2021)

Poland also plans similar activities as part of implementing the "Polish Deal" (PIS, Porozumienie, Solidarna Polska, and Warsaw, 2021). In the regional dimension, the planned regional strategy of transition to the "green" economy is of great importance, i.e., the Regional Just Transition Plan for the Silesian Province 2030 (Marshal's Office of the Silesian Province, Katowice, 2021), specifying actions aimed at moving in the indicated region towards a climate-neutral economy and towards achieving the EU mentioned above climate target by 2030.

3. Research Methodology

The possibilities of an effective transformation towards a "green" economy are conditioned, among other things, by changes in the awareness and behavior of residents. Along with the development of civilization and the increase in consumption grows the toxic burden on the environment. This impact can be minimized in the process of shaping and developing environmental awareness. This process is two-way in nature – the high level of environmental awareness of the inhabitants will translate into their expectations towards politics, politicians, and producers of goods and services. It will also influence the creation of new development priorities. On the other hand, a properly conducted policy may shape the pro-ecological attitudes of the inhabitants.

As already mentioned above, the attitudes and behaviors of the inhabitants of the Silesian Province will depend on the successful implementation of the Economic Green Deal. When planning the research, it was acknowledged that environmental awareness and attitudes towards the preferred forms of economic and investment activity are of great importance for the green transformation. The adopted research procedure included the following three stages:

- Stage I. Selection of a research tool and a research area, preparation of a questionnaire. The Silesian Province was considered the area of research. The research tool was a questionnaire;
- Stage II. Conducting a survey. Using the questionnaire survey method, the study was carried out by a specialized research unit of the University of Economics in Katowice: Research and Development Centre. It was carried out on a sample of 300 inhabitants of the Silesian Province at the turn of 2019/2020. The questionnaire was addressed to people using the Internet who completed the electronic questionnaire on their own using a link to the research they received. The links were posted on an online research platform purchased to conduct the study. The characteristics of the research sample are presented in Table 1.
- Stage III. Data analysis. Based on the data collected through the questionnaire, a database was created and used for the data interpretation.

As indicated above, the area of research was the Silesian Province. The province is located in southern Poland and covers 12.3 thousand km² (i.e., 3.9% of the country's area), inhabited by 4.5 million people (2nd position in the country after the Mazowieckie Province). The region is the most urbanized area in the country, the indicator referring to the share of the population in cities about the total population in 2017 was 76.87%. For comparison, the average for Poland in the same period was 60.13%. The population density of built-up and urbanized areas in 2017 was 2,918 people per km² (Local Data Bank, 2018). The Silesian Province is also an area with the highest concentration of industrial plants. In 2018, 328 plants – particularly burdensome for air purity – were operating in the Silesian Province, i.e., 17.3% of all plants of this type in the country. In 2018, the emissions from the plants mentioned above accounted for 53% of the national emission of gaseous pollutants (without carbon dioxide) and about 25% of the national dust emission (Bednarski *et al.*, 2020). To assess the inhabitants' attitudes and their positioning, a survey conducted among the inhabitants of the Silesian Province was applied. The questions asked to the respondents concerned environmental awareness and attitudes towards the preferred forms of economic and investment activity. The respondents were asked about:

- the importance of nature degradation for the quality of life,
- personal activities (interventions) related to environmental protection,
- viewpoints on conducting various activities in the vicinity of their place of residence.

Table 1. Characteristics of the research sample (% of respondents)

Gender	
Female	55.3%
Male	44.7%
Age	
18 - 25 years	25.3%
26 - 39 years	33%
40 - 65 years	25%
66 years and older	16.7%
Education	
Primary	6.7%
Lower secondary	0.7%
Basic vocational	13%
Secondary	30.3%
Post-secondary	6.3%
Bachelor/Engineer	13.3%
Higher	29.7%
Professional status*	
White-collar worker, clerk	17.3%
Trade and service worker	9.7%
Labourer	4.3%
Teacher	3%
Managerial staff/specialist	9.7%
Employed in a different position	12.7%
Self-employed	7.7%
Pupil/student	19.7%
Pensioner/retiree	17%
Farmer/forester	0.7%
Housewife	2.3%
Unemployed	2%
Average monthly net income	
Less than PLN 1000	6.3%
PLN 1000-1999	12.7%
PLN 2000-2999	27.3%
PLN 3000-3999	11.7%
PLN 4000-4999	3%
PLN 5000 and more	12%
No income	7%
Answer refusal	20%
Type of apartment	
An apartment in a tenement house or a block of flats	57%
An apartment in a detached or townhouse	43%

Note: *In the case of professional status, it was possible to choose more than one answer.

Source: Own study.

Based on the obtained results, a high percentage of respondents are aware of the importance of nature for the quality of life. Over 90% of respondents agreed with the statement that the degradation of nature adversely affects the inhabitants' standard of living. Only 10% of the respondents disagree with this statement, and most often, the inhabitants of apartments in blocks of flats and tenement houses do not notice such a connection (71% of negative responses).

It is worth noting that the declared positive attitude towards nature is not always fully covered by actual behaviors that indicate relationships with nature, such as undertaking personal interventions regarding practical environmental issues. Such interventions were undertaken by only 7.7% of the respondents. In quantitative terms, most of the interventions are related to air pollution due to chimneys of residential houses (burning waste or the use of inadequate quality fuel) and illegal landfills. Other interventions were noted for:

- nuisance related to a biogas plant,
- protection of the Silesian Park and a protest against the construction of a housing estate at the park,
- burning of grasslands,
- parking on the lawns,
- increasing the number of litter bins on the pavement.

By analysing the obtained data, it is possible to create profiles of people taking active measures in the field of the discussed matter. They are:

- women – 82.6% of interventions,
- young people – 69.5% of people who intervene are up to 39 years old,
- people with secondary or higher education – 87% of those intervening,
- people living in a detached or terraced house – 60.9% of interventions,
- people with the average income range provided for the study, from PLN 2,000 to PLN 2,999 and PLN 3,000 to PLN 3,999 – 52.2% of interveners.

The next question was related to the respondents' opinions on taking up specific forms of activity in the vicinity of their place of residence (the pooled results are presented in Table 2).

Social acceptance is a vital factor enabling a "green" transformation as many investments essential for developing a green economy cannot develop without such support. According to the conducted research, the respondents are firmly opposed by traditional investments and management methods, such as: building a large industrial plant that has an impact on the state of the natural environment; (69% of respondents are opposed to such an investment close to their place of residence), liquidation of green areas due to the construction of a new housing estate (79.3%), intensive forest

management with predominant felling use of the forest (62%). These activities are especially unacceptable to people with higher education.

Table 2. *Opinion on undertaking the following forms of activity in the vicinity of the respondent's place of residence (% of valid answers)*

	I agree	I disagree	I have no opinion
Construction of a nuclear power plant	21.7	63.7	14.8
Construction of a wind farm	60.7	26.3	13
Construction of a large industrial plant influencing the state of the natural environment	15.3	69	15.7
Liquidation of green areas due to the construction of a new housing estate	7.7	79.3	13
Intensive forest management (felling use of the forest dominates)	15	62	23
Riverbank regulation	53.3	16.3	30.4

Note: $N=300$

Source: Own study.

From the point of view of the subject of this study, an interesting case is the attitude of citizens to the construction of a nuclear power plant. It is not a fully ecological source of energy (mainly due to the waste generated and the probability of an industrial disaster). However, it should be mentioned that without nuclear power plants, it will be challenging to meet the ecological requirements for reducing CO₂ emissions facing Poland. *Nuclear energy* is a particularly socially sensitive area that cannot develop without social acceptance. For instance: in Poland, after the political changes, the erection of the nuclear power plant in Żarnowiec was suspended due to social protests. Thus, the possibility of implementing such an investment depends very strongly on its acceptance by the local community. The results obtained in the discussed research for the Silesian Province show a lower level of acceptance for such investments than the data obtained in national studies.

For example, according to a PBS study carried out in 2018, 69% of Poles would be willing to accept the construction of a modern and safe nuclear power plant in Poland, thus limiting, at the same time, dependence on oil and gas supplies and reducing carbon dioxide emissions. Another study, conducted in November 2020, commissioned by the Ministry of Climate and Environment, indicates that 62.5% of respondents support nuclear power plants in our country. It is worth emphasizing that almost every second person (46%) supports locating a nuclear power plant near their place of residence, and 51.4% are against this solution (Gov.pl, 2020). Meanwhile, according to research carried out in the Silesian Province, 63.7% of respondents do

not consent to the construction of a nuclear power plant in the vicinity of their place of residence. Only 21.7% of respondents expressly consent to it. The potential construction of a nuclear power plant raises the most vigorous opposition among:

- people in the age groups of 40 - 65 (76% of people in this group do not agree to such construction), and 66 and more (80% of respondents in this age group are against the indicated construction),
- women – 68.1% do not agree.

In this case, this phenomenon can be attributed to the "NIMBY" syndrome (Not In My Back Yard). The indicated syndrome is a category that describes the most common situation when the inhabitants of a given area protest against the location of an object. Since the 1960s, this syndrome has been the subject of increasing interest among researchers (Dear, 1992; Halstead, Luloff, and Myers, 1993; Matthiesen, 2002; Schively, 2007; Staniszewska, 2014; Wontorczyk, 2016), as well as practitioners – investors, politicians, officials, etc. NIMBY Syndrome poses a significant complication for the entire community, including:

- for investors, as they have to deal with protesting residents;
- for residents, as they feel a hazard due to unwanted construction, which is often considered as dangerous;
- for local authorities, as they have to struggle with a conflict that can take unpredictable course;
- for higher-level authorities, as these investments usually have supra-regional significance (Maczak, 1996).

In the Silesian Province, the occurrence of this syndrome and the lack of acceptance for the investments mentioned above may be related to the province's character. This area is characterized by the highest environmental pressures in the country (a high level of industrialization combined with high rates of urbanization). This state of affairs is also highlighted in previous research carried out at the Department of Social and Economic Policy at the University of Economics in Katowice. The indicated studies were conducted in 2015 among the communes of the following provinces: Silesian, Wielkopolskie, and Podlaskie and concerned, among other things, the causes of social protests and ecological conflicts.

The average number of local governments that recorded such protests was the highest in the Silesian Province (18.8% of communes registered such incidents for all studied categories of protests). The protests in the Silesian Province most often concerned pollution caused by industrial plants (30.6% of the surveyed communes reported such events) and the location of new plants (22.2% of communes). On the other hand, there were relatively few conflicts related to investments in renewable energy sources (16.7% of the communes in the Silesian Province recorded such protests, which was

a small amount compared to the Wielkopolskie Province, where 56.6% of the surveyed communes were affected by such conflicts) (Lorek, 2016).

The most robust social acceptance of investments, according to the data obtained in this study, concerns the construction of a wind farm (60.7% of respondents agree to locate such an investment close to their place of residence), and regulation of the river banks – 53% of respondents agree to such activities. Nevertheless, there was also a high percentage of hesitant people (30.4%). Residents of single-family houses most commonly accept riverbank regulation; as many as 64.3% of this group of respondents accept such activities close to their place of residence.

However, it should be emphasized that the current European and world trends concern the restoration of the natural course of rivers and their renaturalization. For example, the current European Union Biodiversity Strategy for 2020 protects still existing natural resources and the restoration of degraded ecosystems, including the renaturalization of at least 25,000 kilometers of rivers. As far as the construction of a wind farm is concerned, the following people agree to such an investment:

- young people – in the age group from 18 to 25, 71.1% of respondents accept such an investment, and in the age group from 26 to 39, 64.7%;
- women – 62.6% of respondents in this group agree (in the group of men the acceptance level was slightly lower and amounted to 58.2%);
- with higher education – 69.2% of people in this group agree to such an investment in the vicinity of their place of residence.

The lowest approval level for building a wind farm applies to people with primary or lower secondary education, i.e., 50% of all respondents in this group do not accept such a project.

4. Conclusions

So far, in the economic development of societies, the natural environment has been treated both as a human habitat and as a source of matter, energy, and a reservoir of production and household waste. Much of the natural resources were considered free goods, i.e., by definition, devoid of any value. This led to unlimited exploitation of the environment and brought an increase in current income; nonetheless, at the same time, it caused devastation and loss of natural resources. In this way, instead of creating the conditions for economic development, the depletion of resources financed current consumption. The new crisis related to the COVID -19 pandemic requires remedial actions, which can also reduce the risks associated with the ecological crisis.

Such actions require the existence of a joint political will but should also be accepted by society. The survey conducted among the inhabitants of the Silesian Province allowed for assessing the current level of environmental awareness, which is the basis for the implementation of political activities. Analyzing the research results, it can be

concluded that nature, as an essential value, exists in the minds of the inhabitants of the Silesian Province. This is evidenced by the high percentage of people who are convinced of the importance of nature for the quality of life.

However, a separate issue is that this awareness is not necessarily related to specific knowledge on the subject and readiness to act for nature protection. The ecological awareness of Poles is often hostile, opposition to actual and potential external threats is expressed, but it rarely translates into personal pro-ecological behavior and taking positive actions. Most respondents – despite noticing problems in their neighborhood – never intervened in environmental matters. It should be remembered that similar results were obtained in studies on the importance of environmental awareness in consumer behavior, which revealed significant discrepancies between the declarations of environmentally friendly behaviors vs. the attitudes and the actual actions of the respondents (Rumianowska, 2013; Patrzalek, 2017).

The indicated state of affairs is a vital challenge in terms of environmental education of the province's inhabitants under study, especially in the implementation of the Regional Just Transition Plan for the Silesian Province 2030 (Marshal's Office of the Silesian Province, Katowice, 2021). Implementing the indicated Plan with little involvement of the region's inhabitants may turn out to be a big challenge.

The situation is similar in the case of the implementation of the nationwide "Polish Deal" (Polski Ład) program (PIS, Przegląd, Solidarna Polska, Warsaw 2021) presented recently by the Prime Minister of the Republic of Poland, defining, among others, the directions of the energy transition of our country, including a significant reduction in carbon dioxide emissions and green electricity (Polski Ład: 106-107). The document in question also announces the construction of a nuclear power plant (Polski Ład: 107), which, as indicated above, will not be possible without social approval.

References:

- Ananicz, S., Buras, P., Smoleńska, A. 2021. Nowy rozdział. Transformacja Unii Europejskiej a Polska, Fundacja im. Stefana Batorego, Warszawa
- Bednarski, G., Grzechowski, N., Kasperek, M., Kawnik, M., Łatkowska, M., Pillich-Konieczny, A., Szidek, Ł., Szumowska, A., Szymańska -Kubicka, L., Wdziekońska, D. 2020. Stan środowiska w województwie śląskim ([The state of the environment in the Śląskie Voivodeship). Główny Inspektorat Ochrony Środowiska, Katowice.
- Bukowski, M., Leszczyński, P., Wetmańska, Z. 2020. Zielona odbudowa. Od kryzysu do realnej zmiany (Green reconstruction. From crisis to real change). Warszawski Instytut Studiów Ekonomicznych i Europejskich, Warszawa, 7-26.
- Burchard-Dziubińska, M. (Ed.). 2015. Towards a green economy. From ideas to practice. Wydawnictwo Uniwersytetu Łódzkiego, Łódź.
- Cire.pl. 2021. Postawy Polaków wobec energetyki jądrowej. Raport z badania PBS (Poles' attitudes towards nuclear energy. PBS study report). Retrieved from:

- <https://www.cire.pl/gal.119,967,0,0,0,0,0.postawy-polakow-wobec-energetyki-jadrowej.html#galeria>.
- Climate Action Tracker. 2021. Retrieved from:
<https://climateactiontracker.org/countries/china/>.
- Dear, M. 1992. Understanding and Overcoming the NIMBY Syndrome. *Journal of the American Planning Association*, 58(3), 288-300. DOI: 10.1080/01944369208975808.
- Działek, J. 2011. Kapitał społeczny jako czynnik rozwoju gospodarczego w skali regionalnej i lokalnej (Social capital as a factor of economic development on a regional and local scale). Wydawnictwo Uniwersytetu Jagiellońskiego (Jagiellonian University Publishing House), Kraków.
- European Commission. 2019. Komunikat Komisji do Parlamentu Europejskiego, Rady Europejskiej, Komitetu Ekonomiczno - Społecznego i Komitetu Regionów (Communication from the Commission to the European Parliament, the European Council, the Economic and Social Committee and the Committee of the Regions). Europejski Zielony Ład COM (2019) 640 final, Brussels. Retrieved from:
https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0016.02/DOC_1&format=PDF.
- European Commission. 2020. Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee And The Committee Of The Regions Eu Biodiversity Strategy For 2030 Bringing Nature Back Into Our Lives. Com/2020/380 Final. Brussels.
- European Council. 2021. Portal Rady UE i Rady Europejskiej. Retrieved from:
<https://www.consilium.europa.eu/pl/policies/the-eu-budget/long-term-eu-budget-2021-2027/>.
- Fetting, C. 2020. The European Green Deal, ESDN Report, December 2020. ESDN Office, Vienna,
- Georgeson, L., Maslin, M., Poessinouw, M. 2017. The global green economy: a review of concepts, definitions, measurement methodologies and their interactions. *Geography and Environment*, 4(1), 1-23.
- Główny Urząd Statystyczny, Bank Danych Lokalnych. 2018. Retrieved from:
<https://bdl.stat.gov.pl/BDL/start>, <https://bdl.stat.gov.pl/BDL/start>.
- Halstead, J.M., Luloff, A.E., Myers, S.G. 1993. An examination of the NIMBY syndrome: Why not in my backyard? *Journal of the Community Development Society*, 24(1), 88-102. DOI: 10.1080/15575339309489921.
- Jędrzejczyk, I., Królik, K., Lorek, A., Lorek, E. 2003. Rozwój rynku dóbr i usług ekologicznych w regionie śląskim (Development of the market of ecological goods and services in the Silesian region). In: Lorek, E. (Ed.). Wydawnictwo Akademii Ekonomicznej w Katowicach, Katowice.
- Lorek, A. 2016. Ocena relacji społecznych i środowiskowych między administracją samorządową a społecznością lokalną w wybranych województwach (Assessment of social and environmental relations between local government administration and the local community in selected voivodeships). *OPTIMUM Studia Ekonomiczne*, 6(84), 111-122.
- Lorek, E. 2016. Transformacja gospodarki polskiej na zieloną ścieżkę wzrostu – narzędzia wsparcia, dokonania i perspektywy (Transformation of the Polish economy onto a green growth path - support tools, achievements and prospects). *Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*, 272, 87-97.

- Matczak, P. 1996. Społeczne uwarunkowania eliminacji syndromu NIMBY (Social determinants of the elimination of the NIMBY syndrome). In: Cichocki, R. (Ed.). Podmiotowość społeczności lokalnej (Subjectivity of the local community). Retrieved from: <http://docplayer.pl/48644488-Spoleczne-uwarunkowania-eliminacji-syndromu-nimby.html>.
- Matthiesen, U. 2002. NIMBY und LULU am Stadtrand — Bürgergesellschaftliche Streitformen um lokale Raumnutzungen und Raumkodierungen im engeren Verflechtungsraum (NIMBY and LULU on the outskirts - civil society disputes about local uses of space and space coding in the closer interdependent area). In: Matthiesen, U. (Eds.). An den Rändern der deutschen Hauptstadt. VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-322-92261-8_13.
- Ministerstwo Klimatu i Środowiska. 2020. Retrieved from: <https://www.gov.pl/web/klimat/poparcie-spoeczne-dla-budowy-elektrowni-jadrowej-w-polsce---badania-z-listopada-2020-r>.
- OECD. 2020. Coronavirus: The world economy at risk. Paris.
- Patrzałek, W. 2017. Znaczenie świadomości ekologicznej w zachowaniach konsumentckich (The importance of ecological awareness in consumer behavior). *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu* (Scientific works of the University of Economics in Wrocław), 501, 11-23.
- Pesce, M., Tamai, I., Guo, D., Critto, A., Brombal, D., Wang, X., Cheng, H., Marcomini, A. 2020. Circular Economy in China: Translating Principles into Practice. *Sustainability*, 12(3), 832. <https://doi.org/10.3390/su12030832>.
- PIS, Porozumienie, Solidarna Polska. 2021. Polski Ład, Warszawa.
- Rumianowska, I. 2013. Ekokonsumpcja jako warunek efektywniejszego wykorzystania zasobów przyrodniczych a świadomość i zachowania konsumentów polskich (Eco-consumption as a condition for more effective use of natural resources versus the awareness and behavior of Polish consumers). *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 318, 364-375.
- Schively, C. 2007. Understanding the NIMBY and LULU Phenomena: Reassessing Our Knowledge Base and Informing Future Research, 21(3), 255-266. <https://doi.org/10.1177/0885412206295845>.
- Scoones, I., Leach, M., Newell, P. (Eds.). 2015. The politics of green transformation. Routledge, New York.
- Sierocińska, K. 2011. Kapitał społeczny. Definiowanie, pomiar i typy. *Studia Ekonomiczne* (Social capital. Defining, measuring and types. Economic Studies). *Economic Studies*, 1(68), 69-86.
- Staniszewska, M. 2014. NIMBY syndrome as an example of a social conflict with local characteristics. *Acta Innovations*, 12, 17-23.
- Szyja, P. 2015. Rola procesu transformacji systemowej w tworzeniu zielonego ładu gospodarczego (The role of the systemic transformation process in creating a green economic order). *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania, Uniwersytet Szczeciński* (Studies and Works of the Faculty of Economics and Management, University of Szczecin), 40(1), 57-69.
- Urząd Marszałkowski Województwa Śląskiego. 2021. Regionalny Plan Sprawiedliwej Transformacji Województwa Śląskiego 2030 (Regional Plan of Just Transformation of the Silesian Voivodeship 2030), Katowice.
- Whitehouse.gov. 2021. National Strategy For The COVID-19 Response and Pandemic Preparedness, President Joseph R. Biden, Jr. Retrieved from:

<https://www.whitehouse.gov/wp-content/uploads/2021/01/National-Strategy-for-the-COVID-19-Response-and-Pandemic-Preparedness.pdf>.

Whitehouse.gov. 2021. The Biden-Harris Administration Immediate Priorities. Retrieved from: <https://www.whitehouse.gov/priorities/>.

Wontorczyk, A. 2016. Analiza psychologiczna syndromu NIMBY. *Czasopismo Psychologiczne (Psychological Journal)*, 22, 109-119. DOI: 10.14691/CPPJ.22.1.109.

Żylicz, T. 2021. Syndrom "NIMBY". Retrieved from: <http://coin.wne.uw.edu.pl/tzylicz/0704AURA.pdf>.