
Impact of Land Use Change on the Value of Tourist Property

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Teodor Skotarczak¹, Małgorzata Blaszkę²

Abstract:

Purpose: The aim of the study was to assess the impact of land use change for tourism-related purposes on their value. The research was carried out in the West Pomeranian Voivodeship. The period of the research covered the years 2014-2019. The research covered all Polish communes, in which the land use was changed for tourist or recreational activities. The analysis covered the years 2014-2019.

Design/Methodology/Approach: The resolutions of individual councils' communes regarding the change of the local spatial development plan in the scope of changing the use of the real estate for tourism were analyzed (in communes, where the local spatial development plan was in force). The analysis also included decisions authorizing the exclusion of land from agricultural or forestry production issued by executive bodies of communes. The research concerned the years 2014-2019 and covered all Polish voivodeships. To analyze changes in the land value due to the adoption or change in local spatial development plans, as well as to issue a decision authorizing the exclusion of land from agricultural and forestry production, data from estimation reports prepared for calculating the planning fee in the years 2014-2019 were used. For better result presentation, data on individual communes were presented at the level of voivodeships.

Findings: Based on the conducted research, it can be concluded that change in the purpose of the property for purposes related to conducting agricultural activity results in increasing its value.

Practical Implications: The article contains much valuable information, which may constitute the base material and reference further research conducted by scientific specialists studying the agricultural land market. The article can assist those wishing to invest in agricultural real estate and pursue tourism investments.

Originality/Value: An analysis of changes in real estate value due to a change in its purpose to the tourist one may be an essential element in forecasting the financial consequences of adopting or changing the local land use plans.

Keywords: Tourist real estate, real estate value, change of purpose.

JEL codes: R14, R58.

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¹West Pomeranian University of Technology in Szczecin, Poland,
teodor.skotarczak@zut.edu.pl;

²West Pomeranian University of Technology in Szczecin, Poland, mblaszke@zut.edu.pl;

1. Introduction

Shaping the tourist and recreation spaces should occupy an important place in the structure of spatial planning due to the great importance for the economies of individual regions and the national economy (Maliszewski, 2014). There is a close relationship between the tourist property market and spatial planning. The change of purpose in local spatial development plans may cause an increase in the market value of a property, or by introducing restrictions on the manner of exercising the right to the property, it may significantly prevent its use, causing a decrease in value (Cymerman, 2010).

The relationship between real estate value and spatial planning is two-way (Laskowska, 2008). First, the purpose of the property specified in the local spatial development plans determines the way they are used, which is one of the factors creating their value. Secondly, the real estate value (Rakhmatulloh *et al.*, 2018), both functional and economical, is the basic information considered in the spatial planning process (Mroziak and Noskowiak, 2018). The local spatial development plan is the primary instrument for shaping and conducting spatial policy in the commune. For owners of real estate (perpetual users), the necessary consequence of adopting or changing a local plan is determining/changing the purpose of the land (Polyakov and Zhang, 2008). The most critical investment stage is analyzing possibilities of using the property for a specific purpose, such as allocating it for planned recreational or tourist development. In this respect, a spatial policy pursued by the commune plays a key role (Żróbek-Róžańska, 2011). The purpose of creating local plans proves their explicit legal nature, which results from the fact that their adoption is necessary to “take momentous, in the sense of spatial development, follow-up activities, such as changing the land use for non-agricultural or non-forestry purposes, or land consolidation and division” (Kwaśniak, 2011).

The commune council decides the need for a local plan for a given area through resolution. It is undertaken based on the previously adopted study of conditions and directions of the spatial development of the commune. Plans are drawn up for separate parts of the commune or entire areas of the commune or even their groups when necessary (Juchniewicz, 2011).

The task of the local plan is to “determine the purpose of the land in such a way that it is consistent with the needs of economic tasks implementation and with the indications of various sciences regarding the deliberate use of land, as well as to determine the purpose of the land in a comprehensive relation, in such a way that the impact of land use on the use of other areas was known and predicted” (Niewidomski 2003). This rule is supplemented by the principle of sustainable development (Owley, 2018).

A local spatial development plan should, in principle, be a document establishing the spatial development rules for at least a few years, as the costs of its preparation are

high, and the procedure is long-lasting (Fogel, 2013). Since it is consistent with other strategic documents of the commune, it should guarantee specific stability of the established directions of its development. However, this is only in the assumption (Chen and Chang, 2018). If the local spatial development plan does not provide any function in each area or otherwise restricts investment plans, the investor may request it be changed. An application to change the plan is submitted to the municipal body, which registers local plans and applications for their preparation or amendment. The investor's application is a postulate, and regulations do not provide any procedures or deadlines for examining the application. The municipal body may or may not accept the application. There is no appeal in this respect. The main reason for refusing to start a change of plan is the high costs of the whole procedure. By art. 21 of the Act on spatial planning and development, the costs of preparing a local spatial development plan are charged directly to the commune's budget.

At the planning stage, it is necessary to develop the financial consequences of adopting or changing the content of the local spatial development plan, resulting in, e.g., the need for mutual settlements between the commune and the owner of the land, including fees charged to the owner for the increase in the value of the property (so-called planning fee) or compensation paid by the communes in the event of a decrease in value or inability to use the property in a current manner. The organizational status presented undoubtedly makes it difficult to change the purpose of the property for tourism.

2. Literature Review

Agricultural and forest land is usually not covered by local spatial development plans (Léger-Bosch *et al.*, 2020). For tourism purposes, these are the most commonly allocated lands. Therefore, the organizational activities should be analyzed, followed by the economic effects of excluding these lands from agricultural and forestry production (Nelson *et al.*, 2001).

The use of agricultural or forest land for purposes related to conducting activities other than agricultural or forestry is a process the procedure and principles of which are regulated by the provisions of the Act on spatial planning and development and the Act on the protection of agricultural and forest land. As indicated above, the purpose of the land is determined only in the local spatial development plan. A particular task for the municipal body is to change the purpose of the area from agricultural or forestry to non-agricultural and non-forest purposes, by the essence of spatial planning, i.e., ensuring spatial order in the process of socio-economic development (Kwartnik-Pruc, Bydłosz, and Parzych, 2011). Land use for non-agricultural and non-forest purposes, according to the Act on the Protection of Agricultural and Forestry Land, is subject to restrictions. To make it possible to exclude agricultural or forest land from production, it is necessary to change the content of the local spatial development plan and the administrative procedure

completed with a decision authorizing the actual exclusion of the land from agricultural or forestry production. Polish legislation on agricultural and forest land protection indicates a list of entities that may apply for such proceedings (Leśkiewicz, 2018). They are owner, perpetual user, independent owner, manager, user, or tenant. Depending on the type of land, appropriate consent is issued by:

- minister competent for rural development in relation to land constituting arable land included in classes I, II, III,
- minister competent for forests or a person authorized by him in relation to forest land owned by the Treasury,
- marshal of the voivodeship after obtaining the opinion of the chamber of agriculture in relation to other forest land,
- director of the national park regarding the land included in the national park.

Non-agricultural and non-forest purposes of agricultural land constituting arable lands of classes I-III, if these lands jointly meet the following conditions, do not require the consent of the minister responsible for rural development for (Zdanowicz, 2018):

- at least half of the surface of each compact part of the soil is contained in compact development,
- arable land is located not more than 50 m from the border of the nearest building plot within the meaning of the Act of 21 August 1997 on real estate management,
- arable land is located not more than 50 meters from a public road within the meaning of the Act of March 21, 1985, on public roads,
- area of arable land does not exceed 0.5 ha, irrespective of whether they form a single whole or several separate parts.

The municipality's body applied to the competent minister for rural development regarding agricultural land use change for purposes other than agricultural and forestry in the local development plan (Derek, Kowalczyk, and Swianiewicz, 2005). The minister's consent for rural development to change the use of agricultural land for non-agricultural and non-forest purposes in the local spatial development plan is the basis for changing the local spatial development plan of the commune in this respect.

3. Research Methodology

In the situation where the arrangements contained in the local plan prevent the use of the property in the current manner or continuation of the existing land development, the owner of the property may, in this case, request the commune to buy the real estate, replacement property or compensation (Sudoł, 2017). In the case of a change

in the plan aimed at determining the tourist properties, the owner usually does not use these rights, as the value of the property increases, as will be shown below (Ma, Wang, 2011). However, there may be a situation when the property is intended for tourist purposes but with building restrictions, which may activate the owner's request to the commune (Suchoń, 2019).

In addition to legal effects, the local spatial development plan also has economic effects. To assess these effects, the commune makes a forecast of the economic effects of adopting a local plan. "This forecast is to indicate the burdens and revenues of the commune resulting from the adoption of the plan." (Cymerman *et al.*, 2017). A change in the purpose of the property for tourism purposes usually entails changes in the value of the property. The increase in the value of the property caused by the purpose change at the time of selling the property by its owner makes it necessary for him to pay a one-off planning fee, the amount of which was determined by the provisions of the spatial development plan about the increase in the value of the property (Kiełducki and Blaszkę, 2019). The fee amount may not be higher than a 30% increase in the value of the property (Law ... 2003, art. 36, item 4). The planning fee is set by the head of the commune (mayor, city president) by way of a decision, based on the interest rate adopted in the local plan, immediately after receiving a copy of the notarial deed.

However, if there is a decrease in the value of the property, and the owner or perpetual user has not exercised his rights resulting from the prevention or limitation of the use of the property, and he sells the property in question, then he may demand compensation from the commune for the same reduction in the value of the property (Muller, 2017).

Other financial effects related to changes in the value of the real estate because of planning decisions include receipts to the commune's budget for so-called adjacent fees, property taxes and taxes on civil law transactions, as well as expenses of the commune incurred for the purchase of real estate intended for public purpose investments.

The adjacent fee is the "value-added fee to existing value" (Król, 2016). In practice, this means a fee incurred for the increase in the property's value caused by the improvement of its utility values through specific actions (Jasiołek and Adamczyk, 2011). The amount of the adjacent fee is set by the resolution of the commune council. In the event of a property division, the percentage may not be higher than 30% of the difference between the value before division and the value after it has been made. However, in the case of construction of technical infrastructure or for the consolidation and division of the real estate, the amount of the adjacent fee may not exceed 50% of the difference between the value of the property before the construction of technical infrastructure devices and its value after their construction and the increase in value because of its consolidation and division.

In a situation where an investor wanting to carry out the tourist activities on real estate intended for the local land use plans for agricultural or forestry purposes has received a decision authorizing the exclusion of the land from agricultural and forestry production, he is obliged to incur relatively high fees related to it. Except for land from agricultural or forestry production, an annual fee and payment are incurred. In excluding the forest land, the person who obtained it is obliged to pay one-off compensation if it carries out premature felling of the tree stand. The obligation to pay arises from the date of actual exclusion of land from production. The fees resulting from excluding the land from agricultural or forestry production are divided into (Tables 1 and 2):

1. receivables - this is a one-off payment for permanent exclusion of land from production,
2. annual fees - these are fees for the use of land excluded from production for non-agricultural or non-forest purposes, in the amount of 10%, fees paid in the event of permanent exclusion for 10 years, and in the case of non-permanent exclusion - for the duration of this exclusion, but not longer than 20 years from the exclusion of this land from production.

Table 1. Receivables for excluding 1 ha of agricultural land from production

Arable land and orchards (a)		Meadows and pastures (b)	
class	receivable (PLN)	class	receivable (PLN)
developed from soils of mineral and organic origin			
I	437 175	Ł I and Ps I	437 175
II	378 885	Ł II and Ps II	361 398
IIIa	320 595	Ł III and Ps III	291 450
IIIb	262 305		
developed from soils of organic origin			
IVa	204 015	Ł IV and Ps IV	174 870
IVb	145 725	Ł V	145 725
V	116 580	Ps V	116 580
VI	87 435	Ł VI and Ps VI	87 435

Note: (a) Arable land and orchards, under buildings and equipment that are part of farms, as well as under-plantings and shrubs, including wind belts and equipment. (b) Meadows and permanent pastures, under buildings and equipment that are part of farms, as well as under-plantings and shrubs, including wind belts and anti-erosion equipment.

Source: Act on the protection of agricultural and forestry land (art. 12 item 7).

The number of receivables resulting from the permanent exclusion of land from production is reduced by the property's value, determined according to market prices applied in a given town in the turnover of land on the day of the actual exclusion of that land from production. In the event of excluding protected classes (class I, II, III, IIIa, IIIb) from land production, in the decision to exclude after consulting the commune head, an obligation to remove and use to improve the value in use of the humus soil layer may be established (Fogel, 2016). In the event of failure to comply with this obligation, the person excluding land from production shall pay a fee in the amount applicable on the date of the decision establishing the fee for each 1 m³ of

the improperly used humus soil layer. The height of these varies and depends on the type of soil and the soil quality class of the land to be excluded. Special protection has been granted to protective forests, as the fees and annual fees for excluding the forest land from production in protective forests have been increased by 50%.

Table 2. *Receivables for excluding 1 ha of forest land without tree stand from production*

Forest habitat types	The equivalent price of 1 m ³ of wood in the amount announced by the Central Statistical Office
Forests: fresh, moist, riparian and mountain, as well as ash and mountain alder	2000
Mixed forests: fresh, moist and swampy, upland, mountain and alder	1500
Mixed forests: fresh, moist, swampy, upland and mountain	1150
Forests: fresh, moist, mountain	600
Forests: dry and swampy	250

Source: *Act on the protection of agricultural and forestry land (art. 12 item 7).*

Presented analyses of the applicable procedures indicate that the change of purpose is formally complicated, expensive (prevents the interested party from participating in the costs that burden the commune), long-term (the average time from undertaking activities related to the development of the study by adopting the plan, ending with publication in the official journal may last up to two years, and it is longer depending on the activity of the opponents of the plan (appealing against the resolution, court proceedings)).

4. Results

As a result of the analysis of the value of land properties in individual poviats of the West Pomeranian Voivodeship, the purpose of which was changed to tourist or recreational, a significant increase in the value of these properties was found.

The increase in the value is expected; it applies to any property acquired for a tourist purpose. The difference in the value change in individual poviats depends on the tourist values and location of the poviat in the coastal zone or covering areas attractive for tourists (lakes, landscape parks, etc.) or the distance from larger agglomerations. In the analyzed period, the land used mainly for agricultural purposes (67%), included in classes IVb, V, and VI, was subject to the purpose change. In each of the surveyed voivodeships, its value increased significantly after the land was changed to a tourist one. In coastal areas and southern voivodeships, a more significant percentage of land (72%) was allocated to accommodation (hotel facilities). The most significant increases in real estate value were recorded in communes located in the coastal zone (Świnoujście, Kołobrzeg), in which an

increase in development investments in the construction of apartment buildings was recorded. Differentiation in the level of land value increase may also result from individual features of land property other than the purpose, e.g., location, area, plot shape, access to technical infrastructure, detailed planning arrangements regarding the intensity and nature of land development, etc.

Table 3. Value of tourist real estate before and after changing the purpose to the tourist one in individual poviats of the West Pomeranian Voivodeship in the years 2014-2016

Powiat	Value of real estate in PLN before and after changing to tourist purpose					
	before change	after change	before change	after change	before change	after change
	2014		2015		2016	
Białogard	59.11	68.9	59.59	69.01	35.13	69.9
Choszczno	206.56	220.06	333.52	340.9	157.29	170.8
Drawsko	102.44	130.12	129.39	132.89	-	-
Goleniów	468.96	503.9	77.97	85.8	35.13	97.5
Gryfice	176.9	190.2	136.91	201.8	157.29	208.89
Gryfino	72.61	80.01	71.21	82.12	35.13	86.9
Kamieńsk	94.22	102.9	333.17	341.89	157.29	350.89
Kołobrzeg	122.45	150.86	125.48	160.2	135.13	167.84
Koszalin	112.87	120.87	129.87	134.45	157.29	160.01
Myslibórz	116.95	150.86	110.16	152.54	135.13	153.56
Police	189.75	201.8	159.45	173.86	157.29	178.7
Pyrzyce	36.47	40.09	22.31	38.9	35.13	41.2
Sławno	126.16	130.21	87.03	98.8	157.29	159.04
Stargard	70.89	73.2	75.84	78.9	35.13	81.2
Szczecin	64.77	67.8	61.37	68.9	157.29	161.2
Świdwin	23.66	27.91	60.07	63.4	-	-
Wałcz	185.02	201	60.84	230.7	55.28	231.1
Łobez	79	82	49.13	85.9	-	-
Koszalin city	143.45	167.26	128	189.8	64.03	190.2
Szczecin city	201.74	289.34	241.64	340.9	266.36	347.3
Świnoujście city	541.95	630.21	338.96	760.9	810.5	817.8

Source: Own study.

An analysis of changes in the value of real estate due to a change in its intended use as a tourist purpose should be an important element in forecasting the financial consequences of adopting or changing the local land use plans. One such effect is the inflow of planning fees to communal budgets.

Table 4. Value of tourist real estate before and after changing the purpose to the tourist one in individual poviats of the West Pomeranian Voivodeship in the years 2017-2019

Powiat	Value of real estate in PLN before and after changing to tourist purpose					
	before change	after change	before change	after change	before change	after change
	2017		2018		2019	
Białogard	78.96	80.21	52.49	80.96	-	-
Choszczno	65.96	171.2	70.81	172.09	61.78	172.98

Drawsko	66.01	132.7	-	-	255.8	261.9
Goleniów	49.77	97.92	75.84	98.79	79.66	99.08
Gryfice	343.22	340.8	291.34	341.2	145.51	345.6
Gryfino	93.4	94.6	128.02	130.12	126.14	134.5
Kamieński	148.16	357.2	66.02	363.9	117.43	370.06
Kołobrzeg	164.43	168.3	177.04	180.12	200.49	201.3
Koszalin	101.27	161.4	97.63	163.3	94.54	164.5
Myślibórz	127.97	154.7	52.7	155.7	84.84	157.3
Police	236.07	238.7	161.89	240.7	177.79	241.03
Pyrzyce	70	71.9	-	-	55.76	71.2
Sławno	94.29	159.93	194.66	195.12	159.66	197.4
Stargard	85.79	86.09	110.88	111.02	90.06	112.03
Szczecin	50.84	163.5	171.64	173.8	237.89	240.9
Świdwin	63.45	65.7	97.72	98.3	98.18	101.2
Wałcz	119.49	240.7	-	-	136.07	137.09
Łobez	-	-	-	-	182.27	184.02
Koszalin city	64.7	191.3	206.13	207.9	97.94	230.9
Szczecin city	249.51	351.02	218.78	367.9	274.8	380.45
Świnoujście city	304.26	821.9	454.95	830.9	784.88	850.9

Source: Own study.

5. Conclusion

Change in the land use, primarily for tourism and recreation, is an economically interesting undertaking for communes in each of the examined poviats, due to:

- a. increasing the investment attractiveness of the commune,
- b. obtaining the income from planning fees,
- c. obtaining higher property tax rates,
- d. increasing tourist traffic and thus the demand for tourist services,
- e. obtaining higher prices for communal land as part of the real estate management.

Research also allows the adoption of pessimistic conclusions. Only a few to a dozen or so percent of the communes in the surveyed poviats are covered by valid spatial development plans, with practically no agricultural areas. Procedures for changing spatial development plans are costly and lengthy. Due to the impossibility of financing changes in plans by investors in some communes located in the examined poviats, methods are used that are a kind of circumvention of the law and are challenging to demonstrate (e.g., donations to communes, or financing of other projects, such as road and public facilities).

Tourism is more and more often an essential part of the local economy, and it is necessary to search for solutions that will facilitate the change of the real estate purpose for tourism and thus increase their market value and investment attractiveness.

References:

- Chen, T.L., Chang, H.S. 2018. The effects of zoning regulations along fault zone areas on land development and property values after the 921 Chi-Chi Earthquake in Taiwan. *Sustainability*, 10(4), 1175.
- Cymerman, R. (Ed.). 2010. Planowanie przestrzenne dla rzeczoznawców majątkowych, zarządców oraz pośredników w obrocie nieruchomościami [Spatial planning for property appraisers, managers, and real estate agents]. Educaterra.
- Cymerman, R., Bajerowski, T., Biłozor, A., Cieślak, I., Gerus-Gościewska, M., Gwiazdzińska-Goraj, M., Kil, J., Konieczny, D., Kotlewski, L., Kryszk, H., Kurowska, K., Piekarska, E., Podciborski, T., Senetra, A., Szczepańska, A., Morze, A., Zagroba, M. 2017. Podstawy planowania przestrzennego i projektowania urbanistycznego [Basics of spatial planning and urban design]. Wydawnictwo Uniwersytetu Warmińsko-Mazurskiego.
- Derek, M., Kowalczyk, A., Swianiewicz, P. 2005. Wpływ turystyki na sytuację finansową i rozwój miast w Polsce (na przykładzie miast średniej wielkości). *Prace i Studia Geograficzne*, 35, 199-217.
- Fogel, A. 2013. Zmiana miejscowego planu zagospodarowania przestrzennego. *Przegląd Komunalny*, (7), 50-51.
- Fogel, A. 2016. Zmiana przeznaczenia gruntów rolnych w miastach – ocena kierunków zmian prawnych [Change in the use of agricultural land in cities - assessment of the directions of legal changes]. In: *Ochrona środowiska a działalność inwestycyjna. Aspekty prawne*, 73-84.
- Jasiołek, J., Adamczyk, T. 2011. Naliczanie opłaty adiacenckiej na skutek podziału przejawem prawidłowego gospodarowania nieruchomościami [Charging the adiacenckiej fee as a result of the division is a sign of proper real estate management]. *Infrastruktura i Ekologia Terenów Wiejskich*, 3.
- Juchniewicz, K. 2011. Znaczenie miejscowych planów zagospodarowania przestrzennego w kształtowaniu struktury przestrzennej obszarów wiejskich [The importance of local spatial development plans in shaping the spatial structure of rural areas]. *Infrastruktura i Ekologia Terenów Wiejskich*, 3.
- Kiełducki, J., Błaszke, M. 2019. Przeznaczenie i renta planistyczna w miejscowych planach zagospodarowania przestrzennego [Purpose and planning rent in local spatial development plans]. *Świat Nieruchomości*, 1(107), 17-24.
- Król, K. 2016. Renta planistyczna i opłata adiacencka – wybrane zagadnienia prawne [Planning pension and adiacency fee - selected legal issues]. *Acta Scientiarum Polonorum Formatio Circumiectus*, 15(4), 243-252.
- Kwartnik-Pruc, A., Bydłoz, J., Parzych, P. 2011. Analiza procesu przeznaczenia gruntów rolnych i leśnych na cele inwestycyjne [Analysis of the process of allocating agricultural and forest land for investment purposes]. *Studia i Materiały Towarzystwa Naukowego Nieruchomości*, 19(4), 169-179.
- Kwaśniak, P. 2011. Plan miejscowy w systemie zagospodarowania przestrzennego [Local plan in the spatial development system]. 3rd Edition.
- Laskowska, E. 2008. Zmiana przeznaczenia gruntu a jego wartość. *Zeszyty Naukowe Szkoły Głównej Gospodarstwa Wiejskiego w Warszawie [Land use change and its value. Scientific Papers of the Warsaw University of Life Sciences]*. *Problemy Rolnictwa Światowego*, 5.

- Léger-Bosch, C., Houdart, M., Loudiyi, S., Le Bel, P.M. 2020. Changes in property-use relationships on French farmland: A social innovation perspective. *Land Use Policy*, 94, 104545.
- Leśkiewicz, K. 2018. Prawna ochrona gruntów rolnych i leśnych w procesie lokalizacji infrastruktury technicznej [Legal protection of agricultural and forest land in the process of locating technical infrastructure]. *Studia Iuridica*, 72, 179-194.
- Ma, Y., Wang, H.K. 2011. Study on Investment Strategy of China Tourism Real Estate Based on the Whole Value Chain. *Commercial Research*, 10.
- Maliszewski, C. 2014. Planowanie przestrzenne obszarów turystycznych i rekreacyjnych w świetle obowiązujących regulacji prawnych [Spatial planning of tourist and recreational areas in the light of applicable legal regulations]. *Człowiek i środowisko*, 38(3-4), 69-90.
- Mrozik, K., Noskowiak, A. 2018. Suburbanizacja a możliwości zrównoważonego rozwoju przestrzennego wybranych gmin wiejskich Poznańskiego Obszaru Metropolitalnego [Suburbanization and the possibilities of sustainable spatial development of selected rural communes of the Poznań Metropolitan Area]. *Infrastruktura i Ekologia Terenów Wiejskich*.
- Muller, A. 2017. Obrót nieruchomościami rolnymi – ocena zmian legislacyjnych [Trade in agricultural real estate - assessment of legislative changes]. *Przegląd Prawno-Ekonomiczny*, 38(1), 2017.
- Nelson, G.C., Harris, V., Stone, S.W., Barbier, E.B., Burgess, J.C. 2001. Deforestation, land use, and property rights: empirical evidence from Darien, Panama. *Land Economics*, 77(2), 187-205.
- Niewiadomski, Z. 2003. Planowanie przestrzenne: zarys systemu [Spatial planning: an outline of the system]. Wydawnictwo Prawnicze LexisNexis.
- Owley, J. 2018. The use of property law tools for soil protection. In *International Yearbook of Soil Law and Policy 2017*, 339-357. Springer, Cham.
- Polyakov, M., Zhang, D. 2008. Property tax policy and land-use change. *Land Economics*, 84(3), 396-408.
- Rakhmatulloh, A.R., Buchori, I., Pradoto, W., Riyanto, B., Winarendri, J. 2018, February. What is The Role of Land Value in The Urban Corridor?. In *IOP Conference Series: Earth and Environmental Science*, 123, 1, 012033.
- Suchoń, A. 2019. Pojęcie nieruchomości rolnej, gospodarstwa rolnego i działalności rolniczej w ustawie o kształtowaniu ustroju rolnego – wybrane kwestie z praktyki notarialnej [The concept of agricultural real estate, farm and agricultural activity in the act on shaping the agricultural system - selected issues from notary practice]. *Przegląd Prawa Rolnego*, 2(25), 91-111.
- Sudoł, P. 2017. Wybrane aspekty dotyczące planu zagospodarowania przestrzennego oraz wyceny nieruchomości [Selected aspects of the spatial development plan and property valuation.]. *Rynek-Społeczeństwo-Kultura, Człowiek na rynku nieruchomości*, 3(24), 88-92.
- Ustawa z dnia 27 marca 2003 r. o planowaniu i zagospodarowaniu przestrzennym [Act of 27 March 2003 on spatial planning and development]. *Dz.U. z 2021 r., poz. 11* [Journal of Laws 2003, No. of 2021, item 11].
- Ustawa z dnia 3 lutego 1995 r. o ochronie gruntów rolnych i leśnych [Act of February 3, 1995 on the protection of agricultural and forest land]. *Dz.U. z 2020 r., poz. 471*.
- Zdanowicz, A. 2018. Zmiana przeznaczenia gruntów rolnych klas I-III na cele nierolnicze w kontekście stosowania tzw. Obwiedni [Change in the use of agricultural land of

classes I-III for non-agricultural purposes in the context of the use of the so-called boundaries]. *Człowiek i Środowisko*, 41(1).

Żróbek-Różańska, A. 2011. Uwarunkowania prawne gospodarki nieruchomościami w gminie w aspekcie kształtowania jej rozwoju [Legal conditions of real estate management in a commune in terms of shaping its development]. *Studia i Materiały Towarzystwa Naukowego Nieruchomości*, 19(2), 39-48.