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ANALYSIS OF THE NEEDS FOR UPDATES OF THE LAND AND BUILDING REGISTER CONSIDERING THE PROCEDURE OF EXCLUSION OF AGRICULTURAL LAND FROM PRODUCTION

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Abstract

Continuous economic development and expansion of urbanised land result in changes in land use. The rules of protection of arable and forest land, as well as reclamation and improvement of the useful value of land are regulated by the act of 3 February 1995 on the protection of arable and forest land with further amendments. The act particularly specifies the rules of changes in the purpose of arable and forest land, and rules of exclusion of arable and forest land from production. The change of purpose and exclusion of land from production are two basic legal instruments which must be considered by all entities planning for example conducting building investments on arable and forest land.

The article presents the issue of the exclusion of arable land from production in the context of updates of land and building register. The scale of exclusions of land from production in Poland was determined. Detailed research was conducted in the Zwoleński poviat with agricultural character, located in the southern part of the Mazowieckie province. The analysis of the process of exclusion of arable land from production as well as changes in the structure of arable land use in the Zwoleński poviat in the years 2005-2014 was performed. The research employed report RRW-11 from the implementation of provisions on the protection of arable and forest land in the scope of exclusion of land from agricultural production, reclamation and management of land and resources, and exploitation of peat deposits. The structure of changes in arable land use was determined based on data from the land and building register obtained from the Poviat Office in Zwoleń.

In the studied poviat, an evident increase in the area of developed and urbanised land was observed at the expense of arable land. Lack of systematic updates of the land and building register was also determined in the scope of data concerning the purpose of land in the study period.

Key words: land and building register, exclusions, urbanised land, arable land, Zwoleński poviat

INTRODUCTION

Agriculture is a vital provisioning service for human well-being and an important component of the global economy (Duran *et al*., 2014). The protection of arable and forest land and its rational use constitute the basic activities aimed at the protection of the best soils and their proper management. Soils fulfil many important functions in the ecosystem, from food production, through the production of renewable materials, to the regulation of the microclimate in urban environments. In the conditions of development of transport, industry, and urbanisation, obtaining land for non-agricultural purposes is becoming an inevitable phenomenon. Over the last decades, a disturbing tendency has been observed involving an almost double increase in the rate of the process in comparison to the population growth index. Moreover, soil sealing, i.e. covering it with impermeable material, is one of the primary causes of soil degradation in the countries of the European Union (European Commission, 2012).

To prevent the process of soil sealing, in the literature following activities of protection of valuable agricultural land are mentioned: the reduction of changes for non-agricultural or non-forest purposes, the prevention of degradation and devastation process, reclamaition and development of land for agricultural purposes, maintaining the bogs and ponds as natural reservoirs, reducing the changes of the natural topography of the land (Bieda *et al*., 2014).

In Poland, the process of allocation of arable and forest land for non-agricultural and non-forest purposes is regulated by the provisions of the act of 27 March 2003 on spatial planning and spatial management, and act of 3 February 1995 on the protection of arable and forest species. In the scope of the legal possibilities of land development in a certain purpose, the key role is played by the spatial policy conducted by the municipality (Pałubska, 2012). In brief, the process of excluding agricultural and forest land from production is a two-step procedure – it contains a change of property use in the local zoning plan and an administrative decision allowing for such an exclusion (Kwartnik-Pruc, 2011). The purpose of land is stipulated in the local spatial development plan. Changes of such purpose are also subject to restrictions. The task of legal norms in the scope is to develop rules of the optimal use of agricultural land. In Poland, the statutory protection covers land with the highest quality and production usabil-

ity, including organic and forest soils. The exclusion from production of arable land (cultivated fields and grasslands) developed from soils of mineral origin categorised to classes I, II, III, IIIa, and IIIb, all arable land developed from soils of organic origin, and forest land for non-agricultural and non-forest purposes – can occur after the issuance of decisions permitting such an exclusion. Arable land of classes I-III constitutes only 25% of the area of all arable land in Poland. The act of 10 July 2015 on the amendment of the act on the protection of arable and forest land introduces par.2a. stipulating protection of arable land of the highest quality with simultaneous exemption, in specified cases, from the obligation of obtaining the permission of the Minister of Agriculture and Rural Development for changing its status from arable land. Such a situation concerns arable land of classes I-III meeting all of the following conditions:

1. at least half of the area of each compact part of land is located within an area of compact building development;
2. it is located at a distance of max. 50 m from the boundary of the nearest building plot;
3. it is located at a distance of max. 50 m from a public road;
4. its area does not exceed 0.5 ha, irrespective of whether the land constitutes one whole or several separate parts.

The provisions of the act also facilitate the change of purpose of arable land located within administrative boundaries of cities (art. 10a). According to the legislator, the amendment released investment land, contributing to higher dynamics of urban development.

According to the surveying register, in 2014 arable and forest land occupied 90% of the area of the country. Arable land constituted its 59% (18.7 million ha), forests and tree stands 31% (9.6 million ha), and the remaining land 10%. 73% of arable land constituted cultivated land, 21% permanent grasslands, and approximately 2% – orchards. From 2000 to 2014, the area of arable land decreased with a simultaneous increase in the area of forest land. A considerable decrease in the contribution of fallow and set-aside land in arable land has been observed over the last decade. From 2000 to 2014, the area of set-aside land decreased from 1.3 million ha to approximately 0.5 million ha (Central Statistical Office, 2014).

Research conducted by the Central Statistical Office shows that the highest number changes of land status from arable land in Poland are performed in rural and rural-urban communes. Rural communes have been changing their agricultural character for the sake of multifunctional development. According to data of the Central Statistical Office as at 31 December 2010 for 67.2% of communes in Poland, pursuant to the provisions of studies of the conditions and directions of spatial development of communes, land with a total area of 423.5 thousand ha (1.4% of the total area of the country) has been designated for a change of use. The largest area of planned land status change concerned the Mazowieckie

voivodship (approximately 63.8 thousand ha). The primary function for which the former arable land was allocated was detached-house residential development. In local development plans, a change in the purpose of 557.5 thousand ha of arable land for non-agricultural purposes was planned at the time (1.9% of the area of the country). The largest area for status change was designated in the Mazowieckie voivodship – 112.4 thousand ha (Prus, 2012).

STUDY OBJECTIVE AND CHARACTERISTIC OF THE STUDY AREA

The study objective was the analysis of exclusions of arable land from production in the context of updating the land and building register. The scale of exclusion of land from production in Poland was determined. Detailed research was conducted in the Zwoleń poviat with agricultural character, located in the southern part of the Mazowieckie voivodship. The analysis concerned the process of exclusion of arable land from production, and changes of the arable land use structure in the Zwoleń poviat in the period from 2005 to 2014. The research applied the report of RRW-11 from the implementation of the provisions on the protection of arable and forest land in the scope of exclusion of land from agricultural production, reclamation, and land and resources management, and exploitation of peat deposits. The structure of changes in arable land use was prepared based on data from the land and building register obtained from the Poviat Office in Zwoleń.

The analysed poviat includes four rural communes (Policzna, Przyłęk, Kazanów, Tczów), and one urban-rural commune Zwoleń. The total registered area of the poviat is 57 316 ha. The Zwoleń poviat features a favourable road system, including national, voivodship, poviat, and commune roads. It has no railway stations. Arable land in the poviat constitutes a total of 74% of its area, including cultivated land reaching the contribution of 64%. Forests and forest land constitute approximately 21% of the total area of the poviat. Soils occurring in the Zwoleń poviat particularly developed from sands, glacial tills, and loamy sands. Therefore, podsols, luvisols, and brown soils are predominant. Only in depressions, in river valleys, and valleys of streams, peaty, muddy, and gley soils occur, as well as brown and proper alluvial soils.

STUDY RESULTS

Analysis of the process of exclusion of arable land from production in the Zwoleń poviat from 2005 to 2014

The primary direction of the exclusion of arable land from production in the Zwoleń poviat constitutes residential areas, 12.06 ha of which was excluded

in the years 2005-2014. Other causes for exclusions included allocating land for transport areas of 9.35 ha, industrial areas – 0.41 ha, water reservoirs – 0.17 ha, and remaining areas – 3.24 ha.

The highest number of decisions was issued in the Zwoleń commune, in the Sycyna village – 7, followed by Strykowice Podleśne – 6, and Zielonka Nowa – 6. The areas are located near the city of Zwoleń, and have good transport connection with the city. Their residents are not employed in agriculture. The excluded plots are particularly located in built-up areas. This suggests the poviat's development in the residential direction. Over the analysed time, 88.37% of all decisions constituted exclusions for residential development, and only 3.49% for homestead buildings. The remaining decisions concern exclusions for: the construction of a measurement mast, construction of a commercial service building, construction of water reservoirs, construction and change of use of the building of a health centre to a building of a shelter for persons in need, and construction of a complex of sports fields. The highest number of decisions excluding land from agricultural production was issued in 2008, and the lowest in 2013. This resulted from the decreasing number of residential investments. In the Zwoleń poviat in the years 2005-2014, a total of 25.49 ha of arable land was excluded, whereas the highest amount of land was excluded in the Zwoleń commune, constituting 42.60% of the total area of excluded land.

Table 1. Exclusions of arable land from production from 2005 to 2014 by communes of the Zwoleń poviat expressed in ha

Name of commune	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	Area of arable land excluded from production in ha									
Policzna commune	0.08	0.05	0.03	0.04	0.27	0.62	0.11	0.23	0.19	0.12
Przyłęk commune	0.19	0.00	0.09	0.03	1.10	0.81	0.72	0.48	0.13	0.27
Tczów commune	0.12	0.08	0.03	0.00	1.02	1.04	0.97	0.51	0.51	0.45
Zwoleń commune	0.60	0.09	0.30	0.13	1.73	1.74	1.49	1.82	1.33	1.63
Kazanów commune	0.03	0.03	0.02	0.00	0.49	0.42	0.67	0.30	0.14	0.19
City of Zwoleń	0.58	0.27	0.32	0.88	0.00	0.00	0.00	0.00	0.00	0.00

Source: own elaboration based on reports of RRW-11.

In terms of surface area, the highest amount of arable land excluded from production was recorded in the Zwoleń commune (10.86 ha). According to data obtained from the Faculty of Geodesy and Poviat Property in Zwoleń, in the years 2005-2014, a systematic increase in exclusions of land from agricultural production occurred. The trend was reversed in 2008 as a result of the amendment of the act of 3 February 1995 on the protection of arable and forest land [i.e.

Journal of Laws 2015 item 909, 1338, 1695]. In 2008, particularly land located within administrative boundaries of cities was excluded. The city of Zwoleń enjoyed the greatest popularity. The highest amount of agricultural areas was excluded in 2010 – 4.63 ha. This mainly covered transport areas – 2.54 ha, as well as residential areas – 1.81 ha. The majority of the exclusions concerned small areas. The smallest excluded area was 0.02 ha, and the largest – 1.82 ha. Notice that the high variability in the excluded areas was particularly determined by the purpose of the exclusion. Areas excluded based on particular decisions concerned land located within the boundaries of a single municipality.

Table 2. Number of decisions excluding land from production for particular purposes of exclusions in a total number of issued decisions from 2008 to 2014 in the Zwoleń poviat

Exclusion objective/year	2008	2009	2010	2011	2012	2013	2014
residential development	17	9	10	14	11	5	10
homestead building	2	1	0	0	0	0	0
commercial service building	1	0	0	0	1	0	0
sports field	1	0	0	0	0	0	0
expansion of the health centre	0	0	1	0	0	0	0
construction of a septic tank and rubbish dump	0	0	1	0	0	0	0
construction of water reservoirs	0	0	0	1	0	0	0
construction of a measurement mast	0	0	0	0	1	0	0
total	21	10	12	15	13	5	10

Source: own elaboration based on data from the Poviat Office in Zwoleń

Analysis of changes in arable land use based on data from the land and building register from 2005 to 2014

The analysis of data from the land and building register showed a decrease in the area of cultivated land, orchards, permanent meadows, and permanent pastures in the Zwoleń poviat in the years 2005-2014. The area of land under ditches and ponds, area of forest land, built-up land, and urbanised land increased.

The highest amount of arable land was excluded in the Przyłęk commune (1108 ha) for the purposes of forest land. Very inconsiderable changes in the area of arable land were recorded in the Tczów commune, where 126 ha of land was excluded (Fig. 1).

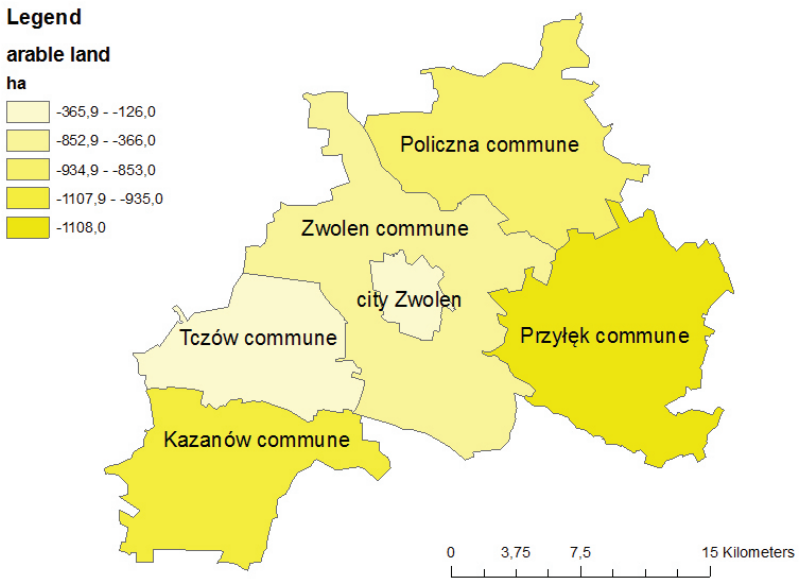
In the Zwoleń poviat, in the scope of arable land, the area of built-up and urbanised land substantially increased. The highest increase in the area of built-up

and urbanised land occurred in the city of Zwoleń – 141 ha, and in the Zwoleń commune – 58 ha, located around the city. The land was allocated for residential development, developing fast due to convenient location, and particularly close vicinity of places of work, or transport accessibility. The remaining communes are of agricultural character, therefore residential development is at a considerably lower level there (Fig. 2).

Table 3. Changes in the land use structure in the Zwoleń poviat in the years 2005-2014

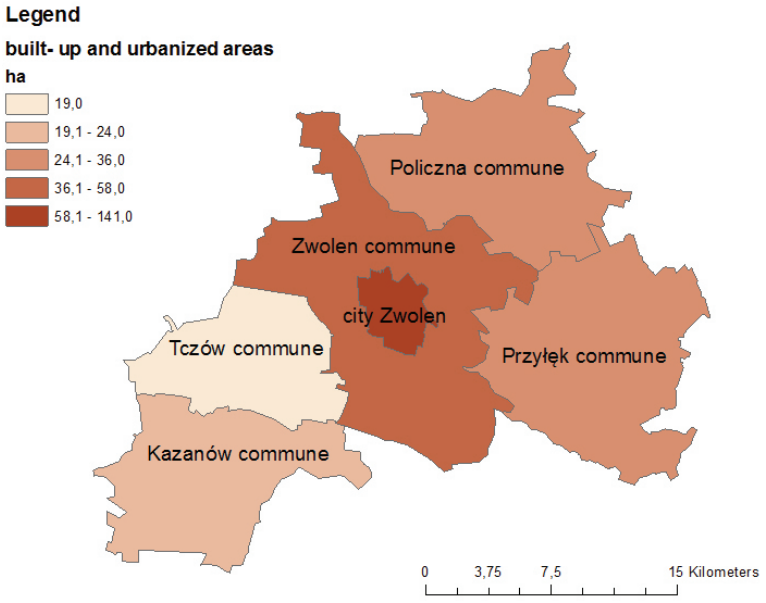
Type of land	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	area in ha									
arable land, including:	46289	46259	46093	46064	45985	45928	45572	45564	45562	42670
cultivated fields	39481	39445	39253	39215	39157	39088	38860	38844	39308	36456
orchards	819	809	800	795	790	785	770	765	558	463
permanent meadows	2569	2568	2559	2549	2549	2551	2506	2507	2507	2186
permanent pastures	1782	1774	1799	1803	1799	1797	1792	1790	1819	1575
built-up arable land	1495	1518	1532	1551	1564	1578	1496	1508	1203	1674
land under ponds	0	2	3	3	5	6	11	12	37	85
land under ditches	143	143	147	148	121	123	137	138	130	231
forest land	8771	8788	8959	8984	9029	9087	9305	9310	9318	12291
Built-up and urbanised land, including:	1271	1299	1315	1326	1336	1342	1490	1493	1500	1580
residential areas	37	44	48	52	57	56	174	174	177	190
industrial areas	31	35	36	38	38	38	60	60	59	62
other built-up areas	42	57	61	66	68	71	87	87	89	150
urbanised undeveloped areas	13	13	13	13	13	13	7	6	6	5
recreational-holiday areas	27	27	28	28	28	28	30	30	30	28
transport areas	1120	1122	1128	1128	1131	1135	1131	1135	1138	1143
mining areas	1	1	1	1	1	1	1	1	1	2
land under waters	298	296	292	293	318	314	304	302	288	234
ecological grounds	39	39	39	39	39	39	39	39	39	40
fallow land	617	615	618	613	612	602	602	604	605	494
various areas	2	2	2	2	1	1	1	1	2	7

Source: own elaboration based on data from the land and building register



Source: own elaboration based on data from the land and building register

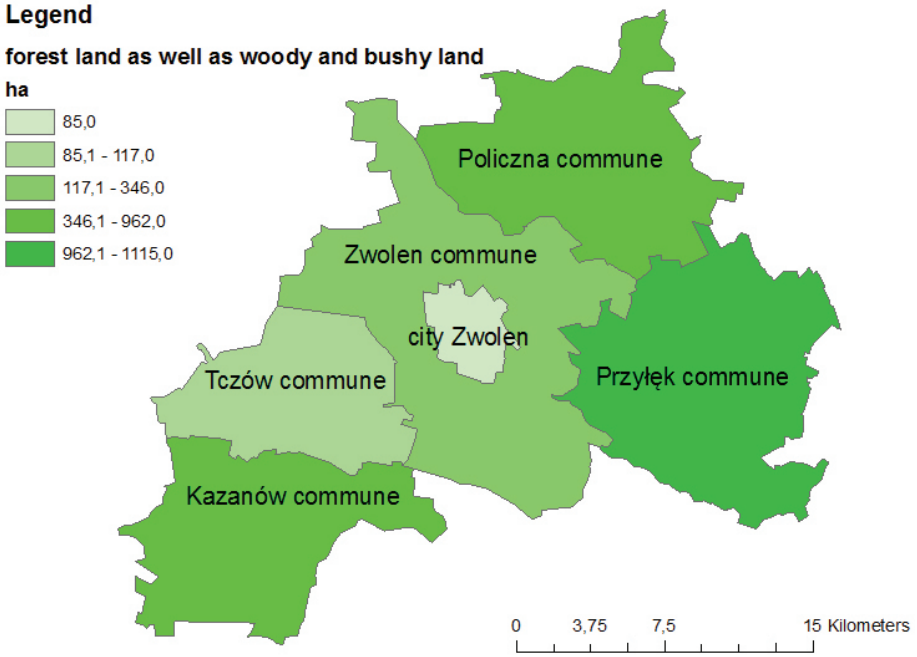
Figure 1. Changes in the area of arable land in the Zwoleń poviat



Source: own elaboration based on data from the land and building register

Figure 2. Changes in the area of built-up land in the Zwoleń poviat

Throughout the Zwoleń poviat, the area of forest land increased at the cost of arable land. In the years 2005-2014, the highest increase in forest land was recorded in the Przyłęk commune – 1115 ha, and its lowest decrease in the city of Zwoleń – 85 ha. This is related to the appearing residential development in the area (Fig. 3).



Source: own elaboration based on data from the land and building register

Figure 3. Changes in the area of forest, woody, and bushy land in the Zwoleń poviat

DISCUSSION AND SUMMARY

The act of 3 February 1995 on the protection of arable and forest land [i.e. Journal of Laws 2015 item 909, 1338, 1695] and other legal documents provide no clear definition of the moment in which exclusion of arable land from production occurs. The rule is adopted that the actual date of exclusion of land from agricultural production is the date of commencement of construction works confirmed with an entry to the construction logbook. Only construction law defines the moment of commencement of the investment process, considered as a "certain" date of change of land use. According to art. 40 par. 1 and 2 of the act of 7 July 1994 Construction Law [Journal of Laws 2005, item 774], the com-

mencement of construction occurs at the moment of undertaking preparatory works, involving:

- geodesic designation of the object in the field,
- performance of ground levelling,
- development of the construction area including the construction of temporary objects,
- executing connections to the technical infrastructure network for the purposes of construction.

The above list of preparatory works together with the statutory obligation of reporting their commencement to the poviat inspector of construction supervision, as well as the obligation to run a construction logbook including entries of dates of performance of such works fully exhausts the definition of the moment of actual exclusion of arable land from production. Therefore, the term of the statutory obligation to report the occurring change in the land and building register and execution of a change in taxation of such land is specified.

The analysis concerning the exclusion of arable land from production in view of the act of 3 February 1995 on the protection of arable and forest land [i.e. Journal of Laws 2015 item 909, 1338, 1695] was performed based on data obtained from the Poviat Office in Zwoleń. In the years 2005-2007, no applications or decisions concerning exclusion of arable land were registered. In the Zwoleń poviat in the years 2008-2014, a total of 86 decisions permitting exclusion of arable land from production were issued, as well as 973 decisions cancelling proceedings concerning exclusion of arable land from agricultural production. The highest number of decisions permitting exclusion of arable land from production was issued in the Zwoleń commune. Among 86 exclusion decisions, six decisions accrued receivables and annual fees pursuant to art. 12 of the act of 3 February 1995 on the protection of arable and forest land [Journal of Laws 2015, item 909, 1338, 1695]. The accrual of receivables and annual fees due to the exclusion of arable land from agricultural production did not occur from the date of actual exclusion. They were calculated in decisions permitting exclusion. In the analysed period, a total of 1133 applications were submitted. As a response, 86 decisions excluding arable land from agricultural production were issued. The number constitutes only 7.60% of the filed applications. The remaining applications were examined in accordance with the law, but an administrative decision permitting the exclusion of arable land from production was not issued due to a number of exemptions included in the act. The analysis of the applications suggests that the small number of decisions and areas of excluded land in the Zwoleń poviat is caused among others by the fact that persons submitting applications for the exclusion of land for the purposes of building development are in majority farmers, the land applied for exclusion for the purposes of planned investment is not subject to protection, or is not classified. Pursuant to the aforementioned act, land under buildings included in agricultural farms and serving

exclusively agricultural production is not subject to exclusion. Another reason is the fact that the majority of arable land is not subject to protection pursuant to the aforementioned act. In the case of an application for the exclusion of arable land from production submitted by the applicant at the stage of implementation of an investment concerning land not subject to protection, a declaration of the poviat authorities was issued stipulating that such land is not subject to protection, and it does not require exclusion from agricultural production.

The land and building register in the Zwoleń poviat in the years 2005-2014 was not systematically updated in the scope of data concerning the change in the purpose of land. The disclosure in the cadastre of changed land use due to the exclusion of land from agricultural production was performed based on submitted measurement reports of as-is inventory related to the completion of construction works. No information was entered to the register concerning actual exclusion of land from production, i.e. after delineating the construction object and specifying the scope of its use. Proper determination of such a moment involves financial consequences. Updating the data base of the land and building register in the scope of change of land use results in the notification of the tax authorities and change in the tax rate for such land. Moreover, commencement of land use other than agricultural makes the investor pay receivables and annual fees due to the exclusion of land from agricultural production. There is a certain gap in communes between the land and building register and tax register. Many plots with the purpose of building development in local spatial development plans and actually designated as building plots with a high value, but currently not built-up or under construction, are entered into the property cadastre as e.g. arable land: RII, RIIIa, RIIIb or meadows: ŁII, ŁIII, ŁIV. The consequence of such an entry is the accrual of agricultural tax, although the plot is in reality a building plot. Such a way of accruing taxes is financially inconvenient for communes.

REFERENCES

Bieda A., Jasińska E., Preweda E., (2014). Surveying Protection of Agricultural Land in Poland. The 9th International Conference "Environmental Engineering", Section: Technologies of Geodesy and Cadastre. DOI: http://dx.doi.org/10.3846/enviro.2014.192.

Duran AP, Duffy JP, Gaston KJ. (2014). Exclusion of agricultural lands in spatial conservation prioritization strategies: consequences for biodiversity and ecosystem service representation. Proc. R. Soc. B 281: 20141529. DOI: http://dx.doi.org/10.1098/rspb.2014.1529

Główny Urząd Statystyczny, Ochrona Środowiska [Central Statistical Office, Environmental Protection], (2014). (in Polish)

Komisja Europejska, (2012). Wytyczne dotyczące najlepszych praktyk w zakresie ograniczania, łagodzenia i kompensowania procesu zasklepiania gleby [European Commission, 2012. Guidelines on best practices in the scope of limiting, mitigating, and compensating the process of soil sealing], Luxembourg: the Publications Office of the European Union. (in Polish) http://ec.europa.eu/environment/soil/pdf/guidelines/pub/soil_pl.pdf

Kwartnik-Pruc A. (2011). Exclusion of Land from Agricultural and Forestry Production. Practical Problems of the Procedure. Geomatics and Environmental Engineering, Vol, 5, number 3, pp. 69-77.

Pałubska J., (2012). Znaczenie opłat za wyłączenie gruntów z produkcji rolnej i leśnej w kształtowaniu cen nieruchomości, Infrastruktura i Ekologia Terenów Wiejskich, Nr 1/III/2012, POLSKA AKADEMIA NAUK, Oddział w Krakowie, s. 187–196, Komisja Technicznej Infrastruktury Wsi [the meaning of fees for a land exemption from an agricultural and forest use in formation of the price level of the real estate] (in Polish)

Prus B., (2012). Kierunki zmian przeznaczenia gruntów rolnych i leśnych w Polsce [Directions of changes in the purpose of arable and forest land in Poland], Acta Sci. Pol. Geod. Descr. Terr. 11(2), 27-40. (in Polish)

Ustawa z dnia 10 lipca 2015 r. o zmianie ustawy o ochronie gruntów rolnych i leśnych (Dz.U. 2015 poz. 1338) [Act of 10 July 2015 on the amendment of the act on the protection of arable and forest land (Journal of Laws 2015 item 1338)]. (in Polish)

Ustawa z dnia 27 marca 2003 r. o planowaniu i zagospodarowaniu przestrzennym (Dz.U. 2003 nr 80 poz. 717 [Act of 27 March 2003 on spatial planning and spatial management (Journal of Laws 2003 No. 80 item 717)]. (in Polish)

Ustawa z dnia 3 lutego 1995 r. o ochronie gruntów rolnych i leśnych. (Dz.U. 1995 nr 16 poz. 78) [Act of 3 February 1995 on the protection of arable and forest land (Journal of Laws 1995 No. 16 item 78)]. (in Polish)

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