

THE TERRITORY OF DOBRA SZCZECIŃSKA MUNICIPALITY AS AN EXAMPLE OF CONFLICT BETWEEN THE FUNCTIONS OF A BORDER AND SUBURBAN COMMUNE AND AN AREA OF HIGH NATURAL VALUE

MARCIN MAZUR

Introduction

The present paper describes the case study of a territory, over which various functions bring about spatial conflicts. The study concerns the territory of a single municipality, the smallest unit of administrative breakdown in Poland (NUTS 5), with a surface area of 110 sq. km. This unit is situated in North-Western Poland. It borders on the west with the Federal Republic of Germany (with an important border crossing of Lubieszyn-Linken), and on the east with Szczecin, the capital of the province, the functional centre of the region with some 420,000 inhabitants. The northern part of the commune is considered to be an area with above-average natural value. This area, therefore, features quite specific conditions for development, both in terms of nature and of socio-economic aspects. Although this specific location brought about economic success, as measured with a number of statistical yardsticks (*Bański, 2008*), but, at the same time, it resulted in the necessity of making difficult choices and finding uneasy compromises by the local self-governmental authorities.

Within the small territory of the commune a number of distinct spatial conflicts appeared, linked with the directions of development of the commune and the differences between the priorities of various social groups. The origins of these conflicts usually also encompass the controversy between private and public interests. The particular households, farms and businesses, conform to the microeconomic precepts, tend towards the attainment of the highest possible benefits from the location, while bearing the lowest possible costs (*de la Barra, 1989*). Public interests are realised at various levels by the governmental administration. The administrative organs, on the other hand, tend to conform to macroeconomic precepts, to maximise the welfare of the overall society on a given territory, understood in accordance with the objectives of the policy (*Johansen, 1977*).

In the situation of conflict of interests a reasonable policy of spatial planning is needed. Yet, in Poland, where spatial planning at the level of local self-government

has a short tradition, the spatial development plans are mostly too general or, as it usually happens in Western Poland, encompass only small areas, meant for concrete investment projects (Śleszyński, 2007).

The primary cognitive objective of the study was the identification of the factors, barriers and symptoms of development of a rural success area, which can simultaneously fulfil various functions that are mutually exclusive with respect to certain aspects. The development of such an area is, namely, perceived in quite a different manner by the local self-governmental authorities, by the persons dealing with trade, construction, inhabitants of the neighbouring town, those who moved into the area relatively recently from the town, or the native inhabitants. A significant issue is also constituted by the diagnosis of the current state, leading to the determination, which of the potential development factors and which of their directions ultimately dominated in practice and what were the causes of this. The primary applied objective, on the other hand, is to indicate the examples of the possibility of balanced development of functions, perceived as functions that might lead to spatial conflicts.

The identification of the main development problems of the commune was carried out through the field study, including the standardised expert interviews with the inhabitants of the commune, representatives of the local self-governmental bodies and selected local entrepreneurs. The conclusions were then confronted with the statistical material, provided by the Central Statistical Office (GUS) in the so-called Bank of Regional Data and with the planning documents (*Plan zagospodarowania...*, 2002; *Studium uwarunkowań...*, 2003).

Conditions for and development of the residential function

Dobra Szczecińska is formally a rural commune. With 17 villages on its territory. The locality of Dobra, with the seat of the self-governmental authorities, is situated approximately 8 km from the administrative boundary of the town of Szczecin. Yet, the two biggest villages, Mierzyn (more than 4,000 inhabitants) and Bezrzecze (more than 1,500 inhabitants) are situated directly at the boundary of the town, located along the main exit roads. The study area was inhabited at the end of 2006 by more than 12,000 persons. This amounts to a population density of more than 108 persons per square km, the highest among the rural communes of the Western Pomeranian province; more than twice as high as the average for the rural municipalities in Poland, and also much higher than the value calculated for the province, including towns. The dynamics of in-migration on the territory of the commune is best illustrated by the fact that the population number increased by roughly 50% in relation to the year 2001. This dynamic population increase was mainly due to the positive net migration balance, persisting over many years. The rate of migration

balance in 2006 was at +50‰, and in the preceding years it had been only slightly lower. This resulted not only in the increase of the population, but also in the improvement of the demographic structure. Women dominate, which is not typical for rural areas and can take place only owing to the possibility of daily commuting to Szczecin and a satisfactory level of development of the service sector in the commune. The age structure is also advantageous, since there are 68.5% of persons in productive age, and only 8.1% in the post-productive age. The consequence of the advantageous age and gender structure, as well as the wealth structure is constituted by the positive balance of natural processes, amounting in the recent years to around +6.5‰ (*Bank Danych...*, 2006).

A vast majority of the new inhabitants of the study area are settlers from Szczecin. Construction activity, associated with the development of the residential function, at the expense of the agricultural function, develops most dynamically in the eastern part of the commune and along the main transit axes, that is – there, where time-wise accessibility of the town, with its specialised higher level functions, is the best. On such areas the traditional farmyard structures already occupy only a small portion of space, and housing blocks of up to three floors appeared. The inflow of non-agricultural population, originating mainly from the town, takes place first of all on the areas equipped with technical infrastructure and located along the transport routes.

The phenomenon of spontaneous urban sprawl has been known in its modern form in the world since the 19th century, and was first observed in England. This process, tolerated in the United States over decades, brought about an unprecedented spatial growth of towns. Under European conditions, though, there existed a necessity for the rapid limitation of urban sprawl, which brought about the development of a number of legal acts (*Dylewski*, 2006). The New Athens Charter, in its 2003 version, elaborated by the European Council of Town Planners, states that urban sprawl is a negative tendency, since the dispersion of urban functions leads, in particular, to longer commuting distances and times, the decrease of service quality, the deterioration of the public transport situation, the increase of road traffic and the liquidation of open spaces and farming in the vicinities of towns.

Dramatic transformations of the suburban areas, reflected, in particular, through the dynamic development of the residential function, became a typical process in Poland only during the 1990s, when free market principles started to rule the real estate market. In view of the convenient transport connections with town and, at the same time, lower prices of land, the suburban areas became very attractive for investors (*Wesołowska*, 2006). Yet, the area of the commune of Dobra Szczecińska is especially attractive in comparison with other areas situated within the suburban zone of Szczecin also because of other qualities. Intensive construction activity was possible first of all owing to the thus defined direction of development already soon after the self-governmental reform and the consistently realised projects in the

domain of development of infrastructural networks (*Studium uwarunkowań...*, 2003). Despite the dynamically growing number of new housing blocks in the recent years, the access to infrastructure remains at a very high level. Thus, 98% of inhabitants of the commune have access to a water supply system, 80% are connected to the sewage network, and 77.5% – by the gas supply network. Notwithstanding the increasing demand from the side of the new residential housing, the municipality considered is, in terms of the indicators quoted, among the best rural communes in Poland (*Bank Danych...*, 2006). The dynamic development of infrastructure was additionally facilitated by the possibility of incorporating the two biggest localities into the urban networks. It was also important that the spatial development plans of the commune were already elaborated and implemented in 1994, so that the area became more attractive for the potential investors than the competing neighbouring communes. The spatial development plans guaranteed an appropriate direction of infrastructural development for the potential investors and the desired surroundings within the zone meant for a specific kind of land use. Currently, 79 plans exist for the territory of the commune, which envisage that 80% of respective area would be meant for housing construction (*Bański*, 2008). The 2003 replacement of the spatial development plans by the decisions on construction conditions, based on the nearest neighbourhood, allowed for the preservation of spatial order by referring to the already existing structures, with simultaneous simplification of the procedures associated with obtaining a construction license. Among the factors, stimulating the particularly dynamic development of housing construction, one should also mention the 7.8 km segment of the national road stretching along the southern part of the commune and the location on the left bank of the Odra river, the same as the functional core of Szczecin. These two factors are largely decisive for the enhanced time-wise accessibility of the centre of Szczecin. In addition, there is, as well, the natural quality of the northern part of the commune and the neighbourhood of the Wkra Forest.

The appearance of the new housing estates with predominantly urban-style family housing results in the change of the rural landscape, and even in the spatial transformation of the rural settlement systems (*Górz*, 2001). Dynamic transformations lead also to changes in lifestyles and living standards, as well as demands for infrastructure and access to specialised services. A symptom of progressing urbanisation in terms of lifestyle is the fact of issuing 15 taxi licences on the territory of a rural commune. Many of the smaller children go to kindergartens in Szczecin, with which the municipal office signed appropriate contracts, guaranteeing an adequate number of places for the children from the commune.

The high share of population originating from Szczecin, causes that the municipality is very strongly functionally linked with the neighbouring city. Commuting to jobs, schools, shopping centres etc. has become commonplace. That is why, side by side with the population number, there has also been within the suburban zone a

significant increase of the road traffic, local entrepreneurship and a number of other phenomena, which are often perceived by the older inhabitants of the municipality as disadvantageous. Hence, we deal with the case of a typical, for the suburban zone, spatial conflict between the residential function and the agricultural function (Bański, 1999).

Within the study area this conflict concerns its southern part, which in the past featured developed private farming on relatively good soils, and where there are no constraints associated with nature protection. This part of the study area, in connection with the national road, stretching along the southern boundary of the municipality, is also characterised by the best time-wise accessibility to the centre of Szczecin and the best level of development of the infrastructural networks. In view of the important pressure from the investors and dynamically rising prices of construction plots, which may even reach the level of 150 USD per sq. m, the protection of the agricultural function on this area appears not to be rational from the economic point of view. The increase of the estate prices took place in the recent years at such a dramatic rate that many inhabitants, confronted with the changing economic situation, decided to move west, across the national border. In the context of the planned increase of the population number in the municipality until 2020 up to 50 000, Mierzyno reaching 13,000 inhabitants, Bezrzecze 12,000, Dobra 8,000 and the subsequent six localities – more than 1,000 inhabitants (*Studium uwarunkowań...*, 2003), the threat appears to be the spread of the monocultural residential function going on in a couple of localities, including the largest ones. An opportunity may only consist in the consistent support for the development of local entrepreneurship, tourism and recreation, and establishment of new jobs, especially in the service sector, which might allow to partly limit connections with the town and to implement the multi-functional development of the area. This is particularly important in the case of the study area, since it is characterised by an exceptionally advantageous endogenous and location conditions. The dynamic, uncontrolled development of the residential function, directed only by the economic principles of the free real estate market, might, however, result in the worsening of the state of natural environment, the health of the inhabitants and many other unpredictable consequences, such as, in particular, a possible future decrease of the attractiveness of this area and a drop of real estate prices. The intensive migration from the town towards the rural area, lasting for more than a decade, caused also that nowadays many of the older inhabitants of the commune to claim to be suffering from the lack of local identity and the disappearance of social ties among a large number of inhabitants of the commune. This is due to the small and still decreasing share of the native population. A role in the weak attachment to the place of residence should also be assigned to the small share of the area of agricultural land, owned by family farms, as this has been the case for many years.

The uncontrolled urban sprawl, as a new phenomenon, is positively perceived in Poland, in view of the short-term benefits, linked with the change of the function of land to the one more advantageous from the economic point of view (Maćkiewicz, 2008). Yet the lack of intervention into the estate market leads to spatial chaos, detrimental for the interests of the local community. Moreover, correcting the errors and mistakes, having taken place in the spatial development, is very costly, and the actual remedying is rarely possible in practice (Jędraszko, 2001).

Conditions for the development of tourism and recreation and their use

There are three main factors, decisive for the high tourist attractiveness of the study area. The first of them is constituted by the high value of the natural environment, especially in the northern part of the municipality. The second important factor is the existence of numerous architectural monuments, which play an increasing role in attracting tourists from Germany to the commune. The last essential factor, stimulating investments into the development of tourism and recreation is the very location of the study area. Very important roles are played especially by the prominent transport connection crossing the commune, linking Szczecin with north-eastern Germany and the neighbourhood of a large town. Owing to the high intensity of the transit traffic in the area of the commune, the development of the tourist infrastructure, and, in particular, of the accommodation facilities and road infrastructure, is economically justified. The neighbourhood of Szczecin, on the other hand, gives rise to the high interest in the area of the municipality as the place of leisure and recreation of the city dwellers.

The entire study area is located in the macroregion of Szczecin Coastland. The northern part of the commune differs, though, significantly from the southern part with respect to natural conditions and features decidedly higher potential as the area of leisure and recreation. It is a part of the mesoregion of Wkra Plain (Kondracki, 2002). This area is dominated by the vast peatland depressions, used as permanent grasslands. Numerous wet and boggy fragments are left unused. The northern fringe of the municipality is covered by Wkra Forest, growing over inland dunes and peatlands, included in the Polish database of the Natura 2000 areas. The strict ornithological reserve "Świdwie" has been established there, protecting the lake that is an important bird sanctuary. The establishment of another reserve, protecting aquatic avifauna, stretching across the national border, is planned. North-eastern fragments of the study area are parts of the ecological corridor of a supra-regional character, stretching meridionally along the valley of Odra river. Of other forms of nature protection which exist in the area of the commune, there are 12

ecological land plots and three nature-and-landscape complexes, and in the north-western part of the municipality, adjacent to the national border, the establishment of an area of protected landscape is envisaged. The scarcity of fertile soils and the necessity of land improvements resulted in less developed agriculture. Owing to this, large areas of the northern part of the commune were preserved in a near-natural character. Despite the unique character of the area, no national or landscape park has been established on the territory of the municipality until now.

Taking advantage of the natural value is limited nowadays to the popular mushroom picking in the Wkra Forest, using bicycle paths and bicycle border crossing, as well as horse riding centres and sports grounds. Bicycle tourism is inscribed as the so-called trademark product of the commune, financed from the means of the European Union.

On the territory of the commune, there are 16 objects listed in the national register of protected monuments of architecture and history, and three others are also expected to also be listed. These are primarily former German buildings and the rural manor-and-park complexes. They constitute for the commune a significant potential for the development of sentimental tourism, meant for the descendants of the German population, having inhabited these territories before the World War II.

The presence of the transit route on this area, with 17,500 vehicles passing through on the average per day, now exerts the largest influence on the investments into tourist infrastructure. Owing to the specific location, two three-star hotels were established in the commune in recent years, along with numerous other hospitality and catering facilities, as well as businesses associated with servicing road traffic. Alas, these undertakings, even though attaining a relatively significant scale, feature a very narrow scope of activity, linked with their specialisation in servicing the cross-border traffic, as well as limited spatial reach. Interviews with local entrepreneurs indicated that tourism in the commune is oriented at short-time visits, based on overnight stays of persons travelling across the border and taking advantage of lower prices in Poland and catering services for foreign guests. The average occupancy of beds in the hotels situated along the national road is at 70%. The businesses with this scope of specialisation are doing well, but their activity is linked with only a small part of the territory of the municipality, and is not based on the use of its main tourist qualities. Hence, there is shortage of cheaper accommodations, further away from the main road, which could be the basis for longer-stay and weekend tourism.

Likewise, educational tourism, developing in association with the existence of the unique aquatic bird sanctuaries and archaeological sites on the territory of the commune, is of lesser significance for the economy of the commune.

Currently, the tourist qualities of the study area are not used to the degree adequate for the existing potential. The continuing lack of support for the development of tourism and recreation may in the future bring about significant trans-

formations of the present character of the landscape. The lack of compact forms of nature protection, in the form of a national or landscape park, causes that the here mentioned areas of high natural value are under threat of getting into the vicinity of large housing estates, which might make them lose their natural character. On the other hand, the monuments of architecture and history are increasingly often surrounded by new housing developments.

The municipality of Dobra Szczecińska as the rural area of economic success

In terms of the level and structure of its economy, the commune of Dobra Szczecińska is among the very best ones among the rural communes in Poland. For years, the development of the local economy has been the priority for the local self-governmental authority. In order to attain this goal, the commune made use of its location qualities, first of all to attract new inhabitants. For this purpose, good conditions were established for housing construction, both in terms of development of infrastructure and of the legal prerequisites concerning construction conditions. Along with the increasing number of inhabitants, having come from the town, local entrepreneurship and demand for new services have been increasing as well.

Regretfully, the chosen direction of development of the municipality accounts to an insufficient degree for the possibilities linked with the development of tourism, potential benefits for the inhabitants of the neighbouring town, making use of the natural qualities of the municipality, or the landscape changes, which might, with time, result even in the decrease of attractiveness of the housing land.

As the structure of population changed, the economy of the commune changed entirely, as well. First of all, during the last almost twenty years, the role of agriculture significantly decreased, to the advantage of the increasing importance of services. The main reasons were the disadvantageous natural conditions, increasing land prices, motivating to changing the nature of land use, concerning medium and poor quality farming land, to construction plots, as well as the liquidation of the state farms, which owned a large share of agricultural land. Nowadays, the Agricultural Property Agency of the State Treasury still holds 36% of agricultural land. The potential development of these areas for horticultural production aiming at the neighbouring large sales market of Szczecin encounters serious problems for agro-climatic reasons. Currently, on the area considered there are only some 75 farms, of which a part only pretend to carry out farming in order to acquire area payments from the EU funds, and only a dozen or so are actually oriented at effective agricultural production. The majority of the farms in the commune should, however, be treated mainly as the investments of the inhabitants of Szczecin in land, as implied

by the fact of common giving up of filing applications for the agricultural EU payments.

The largest among the high number of the new businesses belongs to the 2nd sector of the economy. It is a production plant of the Danish corporation “Sonion”, manufacturing modern electro-acoustic assemblies for the hearing and telephone devices, receiving sets and medical equipment. This plant employs around 1,100 persons and to a large extent bases on the skilled staff, educated in Szczecin. Yet, a vast majority of the businesses are small companies, of which 78% belong to the service sector. The level of economic activity of the area is best illustrated by the fact that in the period 1997–2005 the number of businesses per 1,000 inhabitants doubled and is now at 146. This value is almost three times higher than the average for the rural areas in Poland and is even higher than the average for Polish towns (*Bank danych...*, 2006). Only 18 enterprises belong to the public sector.

The appearance of the new service outlets was induced by the advantageous population structure, demand from the side of the inhabitants, having lived before in the city, but also demand from foreign customers. Examples of services which appeared with the idea of catering to the inhabitants originating from the town and foreigners include hairdressing parlours, furniture shops, plant and flower shops, restaurants, car washes, gas stations, recreation facilities and many others.

Still, there are branches of services that have lost in significance over the last more than a decade. This applies, in particular, to the peri-boundary trade which prospered in the 1990s. Along the national road, at the distance of a couple of kilometres from the boundary, there functioned large surfaces of bazaars, whose activity was virtually uniquely oriented at customers from Germany. Yet a few years ago approximately 50% of the dozen or so thousand vehicles which pass daily over the national road, would take it in order to do shopping at the border. The market areas were owned by the commune, and the rent related to this trade constituted an important source of municipal revenue. These bazaars also provided numerous jobs to the inhabitants. In successive years prices on the two sides of the border gradually evened out, and peri-border trade was losing in significance. The situation improved significantly in the second half of 2008, owing to the fact that Poland entered the Schengen area and Polish zloty abruptly lost to Euro, but these events ought to be regarded as transitory. Currently, greater economic advantages resulting from the location close to the border are associated with the capital gained owing to the intensive trade of the 1990s and with investing it in the development of the infrastructural network development, so that in this respect, Dobra Szczecińska outranked the neighbouring, competing communes.

The economic structure of the study area differs significantly from the typical economic structure in rural areas in Poland. The characteristics of economy on the territory of the commune, outlined before, and the dynamics of changes in the recent years were decisive for classifying the commune considered as the rural eco-

conomic success area in two out of three categories. Thus, the basis for determining the local foci of success was constituted by nine diagnostic features: average dwelling area per person, share of dwellings equipped with bathroom, shares of population using water supply and sewage networks, number of shops per 1,000 inhabitants, number of libraries per 10,000 inhabitants, number of NGOs per 1,000 inhabitants, number of businesses in the private sector per 1,000 inhabitants in productive age, and own revenues of the municipal budget per inhabitant. Then, the commune studied was classified as the rural area of progression on the basis of dynamics in the period 1995–2005 of five diagnostic features: population number, surface area of dwellings, length of the water supply network, number of businesses in private sector, and own revenues of the commune. Thus, the municipality of Dobra Szczecińska featured, at the same time, a high level of economic development (*Table 1*) and high dynamics of development over the last ten years, consistently higher than the average for the country (*Bański, 2008*).

Conclusions

The unquestionable economic success of the study area does not imply, though, the successes in all the aspects. The direction of development, chosen already in the early 1990s, based on the expansion of the functional ties with Szczecin and the improvement of the attractiveness of the commune in terms of the development of the residential function, caused numerous spatial conflicts with the development of the remaining functions, which do also encounter advantageous conditions for development within the study area. The dynamically growing population number brought about, in particular, an improvement in the demographic structure, increase of the number of businesses, increase of employment and improvement in the level of equipment with infrastructure. This, however, took place at the expense of the growing pressure on natural environment, landscape changes and the downfall of agriculture. Spatial conflict took a distinct shape first of all just along these three axes.

Until now the conflicts between the development of tourism and recreation, and development of housing construction have been effectively resolved by supporting the polarisation of development between the southern and northern parts of the municipality. These areas differ as to the attractiveness for investors, as well as in terms of nature and landscape. Yet, further dynamic growth of the population number unavoidably leads to the gradual abandonment of the recreational function, which would be highly disadvantageous for the inhabitants of the neighbouring city. On the other hand, the much more profitable tourism business, catering to the trans-border traffic, makes use of entirely different location qualities, and is concentrated in the area, featuring high pressure from housing development.

Table 1
Selected statistical data concerning the economic development of the commune of Dobra Szczecińska against the background of Poland

The reactivation of agricultural activity, even in the form of commercial farming, aiming at supplying the neighbouring city, is now apparently impossible in view of the high land prices, meant for housing construction. The infrastructure and the buildings of the former state farms have been largely turned to use by now for non-agricultural purposes. An additional reason for abandoning the agricultural function is the fact that the areas featuring the best natural conditions for the development of agriculture coincide largely with the areas where the pressure from the residential function is the highest.

Potential, associated with the natural qualities and monuments of architecture is nowadays evaluated solely from the economic viewpoint, which is the primary cause of the lack of equilibrium between the development of tourism and recreation and the development of housing function. An essential barrier to the development of recreation on the basis of functional links with Szczecin is also constituted by the lack of coordination in the spatial planning within the suburban zones of large cities in Poland.

References

- Bański, J. 1999: Obszary problemowe w rolnictwie Polski [Problem areas in Polish agriculture; in Polish]. *Prace Geograficzne*. 172. Wrocław, IGIPZ PAN.
- Bański, J. 2008: Wiejskie obszary sukcesu gospodarczego [Rural areas of economic success; in Polish] *Rural Studies*. 14. Warszawa, IGIPZ PAN-PTG.
- De la Barra, T. 1989: *Integrated land use and transport modelling: decision chains and hierarchies*. New York, Cambridge University Press.
- Dylewski, R. 2006: Problemy rozprzestrzeniania się miast w świetle doświadczeń krajów Unii Europejskiej i Stanów Zjednoczonych [Problems of urban sprawl in the light of experience of the countries of European Union and the United States; in Polish]. In: Kozłowski, S. (ed.): *Żywiłowe rozprzestrzenianie się miast*. Warszawa-Lublin, Wyd. Ekonomia i Środowisko.
- Górz, B. 2001: Budownictwo mieszkaniowe na obszarach wiejskich południowej Polski po roku 1988 [Housing construction on the rural areas of southern Poland after 1988; in Polish]. In: Rajman, J. (ed.): *Polska-Europa. Gospodarka, przemysł*. Kraków, Wyd. Nauk. Akademii Pedagogicznej. pp. 261–279.
- Jedraszko, A. 2001: *Odpowiedzialność władz publicznych za ład przestrzenny* [Responsibility of the public authorities for spatial order; in Polish]. Mimeo. Stuttgart.
- Johansen, L. 1977: *Lectures on macroeconomic planning*. North-Holland, Amsterdam.
- Kondracki, J. 2002: *Geografia regionalna Polski* [Regional Geography of Poland; in Polish]. Warszawa, Wyd. Nauk. PWN.
- Plan zagospodarowania przestrzennego województwa zachodniopomorskiego*, 2002 [Spatial development plan for the Western Pomeranian province, in Polish]. Regionalne Biuro Gospodarki Przestrzennej Województwa Zachodniopomorskiego, Szczecin.
- Maćkiewicz, B. 2008: Ceny nieruchomości niezabudowanych jako kryterium zmian funkcjonalno-przestrzennych w aglomeracjach miejskich [Prices of land as a criterion of functional-spatial changes in urban agglomerations; in Polish]. In: Gierańczyk, W. – Kluba, M. (eds.): *Problemy i metody oceny kontinuum miejsko-wiejskiego w Polsce*, *Rural Studies*. 13. Warszawa, IGIPZ PAN-PTG.

- Studium uwarunkowań i kierunków zagospodarowania przestrzennego Gminy Dobra*, 2003 [Study of conditions and directions of spatial development of the Commune of Dobra; in Polish]. Regionalne Biuro Gospodarki Przestrzennej Województwa Zachodniopomorskiego, Szczecin.
- Śleszyński, P. et al. 2007: *Raport o stanie i uwarunkowaniach prac planistycznych w gminach na koniec 2006 roku* [Report on the state and conditioning of the spatial planning work in the communes as of the end of 2006; in Polish]. Warszawa, IGIPZ PAN.
- Wesołowska, M. 2006: *Rozwój budownictwa mieszkaniowego a przemiany przestrzenne wsi województwa lubelskiego* [Development of housing construction and spatial transformations of countryside in Lublin voivodship; in Polish]. *Rural Studies*. 10. IGIPZ PAN-PTG. Warszawa.
http://www.stat.gov.pl/bdr_n/app/strona.indeks [recently accessed on 13.02.2009].