ABSTRACT. In the article the actual functions of rural or urban-rural communes in Dolnośląskie voivodeship (Lower Silesia) in 1996 and 2005 were indicated by applying three criteria of delimitation: structure of economy, the level of industrialisation and the level of tourism infrastructure. The research revealed that in 1996 most communes were classified as the type dominated by agriculture and at the same time they were underdeveloped with regards to tourism and were, almost totally, lacking in industry – as many as 48 out of 126 of analysed communes. In 2005 in Dolnośląskie voivodeship industrial communes prevailed which were also dominated by agriculture – altogether 47 communes in the region.

KEY WORDS: Poland, Dolnośląskie voivodeship, rural areas, communes’ functions, types of communes.

INTRODUCTION

The political transformation which had its beginning in 1989 created new possibilities of development, but in some regions of Poland including, in part, Dolnośląskie voivodeship, it was also instrumental in the fall of leading branches of industry (Hełdak, 2008). The return of some communes to the level of development from the time before transformation was a long process which in some cases has not been completed even yet. One of the factors affecting the development process and functional changes of communes was the inclusion of Poland into the European Union (Jasiulewicz, 2001; Fijałkowska, Jasiulewicz, 2003; Jasiulewicz, 2004; Szymańska, Biegańska, Gil, 2009). The use of European funds opened possibilities to undertake some communal investments initiated by the local community. Taking into account the changes which took place in Poland, the years used for analysis concern year 1996, the time after the political
transformation and 2005, a period following Poland’s accession to the structures of the European Union. The research concept used in the functional analysis has its background in standardization according to the structure of economy, the level of industrialisation and the level of tourism infrastructure.

Katarzyna Duczkowska-Małysz (1998) described Polish rural areas as affected by features of deep periphery meaning agrarian overpopulation and the local labour markets lacking the possibility to absorb the surplus of workforce, lack of capital and significant deficiencies in the technical and social infrastructure. At the same time, citing the features of periphery, Katarzyna Duczkowska-Małysz indicated that the structure of economy, the employment structure, nature-landscape values and other resources decide about the future changes in developments. Model consideration including the above factors allow for distinguishing between the types of communes which differ with regards to the scope of performed functions, include: legal-administrative, socio-economic, demographic-occupational.

Adopting as the criteria of allocation of communes the level of economic development expressed as relations between industry, craft, services and agriculture and forestry we can divide communes into 5 types: agricultural communes, agricultural-industrial communes, industrial communes, industrialised communes, and service communes.

The application of further evaluation criteria, evaluation of communes in the light of the employment structure – the proportions between the employed in the three areas of national economy: agriculture (agriculture and forestry), industry (industry and construction) and in the remaining areas of economy (services) determine if a commune belongs to one of eight types of communes. Such criteria of delimitation allow for the distinguishing of the following types of communes: rural, mixed, industrialised, urbanised with industry, urbanised but non-industrialized, industrial, centrally industrialised, and central communes. In the research, the functional division of communes, as well as the structure of economy and the level of industry, and also the landscape-tourist qualities were taken into account.

**RESEARCH METHODS**

The research covered the area of rural and rural-urban communes located in Dolnośląskie voivodeship – altogether 126 communes. In the bounds of the area covered by the analysis are communes which are located in the former voivodeships of Jeleniogórskie, Legnickie, Wałbrzyskie and Wrocławskie and which today form the sub region of Dolnośląskie voivodeship. Communes Jawor, Jemielno and Niechłów formerly located in the Leszczyńskie voivodeship and communes Miedzybórz, Syców and Dziadowa Kłoda located in the former Kaliskie voivodeship were excluded from the analysis due to the difficulty in accessing statistical data.

Data published by Wojewódzki Urząd Statystyczny (the Voivodeship Statistical Office) in statistical yearbooks and archive held in Wrocław Statistical Office was used in the analysis. Each commune was described by a set of diagnostic features which constitutes the basis for presenting commune functions in 1996 and 2005.

In the research a criteria of delimitation was used which took into account the structure of economy, the level of industry and the level of tourist infrastructure. It was decided that the division, including not only the dominating function but also the development level of other functions, was the fullest.

In order to allocate homogeneous communes the following criteria of delimitation were adopted:

- communes dominated by agriculture (the tax on agriculture activities constitutes more than 25% of the total taxes on business activities);
- industrial communes (employment in industry constitutes 25% of total employment);
- communes of tourist organization (the number of tourist accommodation constitutes more than 1 place/1km²).

Such criteria allowed for the distinguishing of article eight types of communes of which a short characteristics is presented below following Więckowicz Z. (1998) on the basis of Planck U. (1983):

**Type I** – industrial communes dominated by agriculture of tourist organization;
**Type II** – industrial communes dominated by agriculture, without tourism;
**Type III** – industrial communes with tourism organization, almost without agriculture;
**Type IV** – industrial communes where agriculture does not play a significant role;
**Type V** – communes dominated by agriculture, almost no industry but with tourist organization;
**Type VI** – communes dominated by agriculture, no tourism organization, almost no industry;
**Type VII** – communes of tourist organization, almost without industry and without significant agriculture;
**Type VIII** – communes of almost no industry nor agriculture and without tourist organization.
The research results were presented in Fig. 1–3. For the purpose of the article analysis of functions in the region and the quality of agrarian production space were also analysed.

ALLOCATED FUNCTIONS OF RURAL AREAS OF DOLNOŚLĄSKIE VOIVODESHIP IN 1996

The completion of research regarding the transformation of rural areas of the south-west macro region, which was undertaken under the direction of Więckowicz Z. (1998), bore the fruit of functional standardization of the south-west macro region. As a result of the research carried out communes of diverse functions were distinguished by using delimitation criteria presented in the research methods. The subjects of the analysis performed at that time were 276 territorial units located within the administrative borders of seven former voivodeships of south-west were the subject of research for this study. The actual functions of communes presented then in 1996 have been collated below (Table 1).

Table 1. Division into particular types of communes of Dolnośląskie voivodeship on the basis of data from 1996

<table>
<thead>
<tr>
<th>No.</th>
<th>Subregion</th>
<th>A</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>jeleşniogórski</td>
<td>28</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>5</td>
<td>17.9</td>
<td>5</td>
<td>17.9</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>legnicki</td>
<td>31</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>9</td>
<td>29.0</td>
<td>2</td>
<td>6.5</td>
</tr>
<tr>
<td>3.</td>
<td>wałbrzyski</td>
<td>30</td>
<td>–</td>
<td>–</td>
<td>1</td>
<td>3.3</td>
<td>9</td>
<td>30.0</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>4.</td>
<td>wrocławski</td>
<td>37</td>
<td>1</td>
<td>2.7</td>
<td>1</td>
<td>2.7</td>
<td>2</td>
<td>5.4</td>
<td>4</td>
<td>10.8</td>
</tr>
<tr>
<td>5.</td>
<td>Total</td>
<td>126</td>
<td>1</td>
<td>0.8</td>
<td>2</td>
<td>1.6</td>
<td>16</td>
<td>12.7</td>
<td>21</td>
<td>16.7</td>
</tr>
</tbody>
</table>

Explanation: A – number of communes; B – amount; C – %

Source: Own compilation based on Więckowicz Z., 1998

The collation of particular types of communes in the table indicates that the biggest percentage of communes were classified as type VI – communes dominated by agriculture, with no tourism organisation and almost no industry. This represents as many as 38.1% out of 126 communes (48 rural communes and urban-rural). The next group consisted of type IV communes – industrial communes where agriculture did not play a significant role, and also of type VIII – communes of almost no industry and agriculture without tourist organization (16.7% of all analysed regions – 21 communes).

The spatial distribution of particular types of communes (Fig. 1) indicates that rural communes (Type VI) which typically dominate the region were located in the middle part of the region in line from east to west, in the area of Nizina Śląska (Silesian Lowland) and Nizina Śląsko-Lużycka (Silesian-Lusatian Lowland). The regions where this type of commune was present were located starting from the east, from the rural commune of Olawa and Wiązów commune, through urban-rural communes of Kobierzyce, Kąty Wroclawskie and the rural communes of Udani, Wądroże Wielkie, Ruja and further west to the communes of Suliów, Siekierczyn and Platerówka.
Industrial Communes (Type VI) were located in a mosaic pattern in the whole area of Dolnośląskie voivodeship with a clear domination of the Legnicki sub-region. Communes that belonged to the type of communes of almost no industry and without agriculture (Type VIII) were mainly located in the western part of the region – in the north part of the former Legnickie voivodeship and in the north part of the former Jeleniogórske voivodeship. Type III – industrial communes with tourism organization, almost without agriculture – are quite strongly represented in the region. These communes are mainly located in the southern part of the Sudety Mountains. Type VII – communes of tourist organization, almost without industry and without significant agriculture complete type III and are mainly located in the area of Kotlina Kłodzka (Kłodzko Valley).

This analysis shows that due to the collapse of the economy the rural and urban-rural communes of high quality agrarian soil very often took on a function most agreeable with the possibility of running agricultural activities (Fig. 2).

Communes, where there is a large number of good quality agricultural soils, despite close proximity to Wrocław, adopted a predominately agricultural function in 1996. This was the consequence of the breakdown of the Polish economy.

Moreover, research showed that there was a high number of communes of type VIII – communes of almost no industry and agriculture. The economic situation of these regions was very unsettling, more so, that these communes were usually characterised by adverse agricultural conditions. Different branches of industry had already developed in these communes, whose fall, due to the political transformation, became visible in the research by qualifying them as in the last type.

**ALLOCATED FUNCTIONS OF RURAL AREAS OF DOLNOŚLĄSKIE VOIVODESHIP IN 2005**

Using the same criteria of delimitation, the functional analysis of communes was undertaken in 2005. The research showed that in 2005 Type II communes dominated in Dolnośląskie voivodeship (industrial communes dominated by agriculture, without tourism). These communes are located in the central and northern part of the voivodeship (altogether 47 communes). In these communes tourism employment constituted 25% of the total employment and also the tax from agricultural activities constituted 25% of the total business activity tax (Table 2).

Table 2. Division into particular types of communes in Dolnośląskie voivodeship based on data from 2005

<table>
<thead>
<tr>
<th>No.</th>
<th>Subregion</th>
<th>A</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>1.</td>
<td>jeleniogórski</td>
<td>28</td>
<td>7</td>
<td>25.0</td>
<td>8</td>
<td>28.6</td>
<td>8</td>
<td>28.6</td>
<td>3</td>
<td>10.7</td>
</tr>
<tr>
<td>2.</td>
<td>legnicki</td>
<td>31</td>
<td>2</td>
<td>6.5</td>
<td>11</td>
<td>35.5</td>
<td>2</td>
<td>6.5</td>
<td>7</td>
<td>22.5</td>
</tr>
<tr>
<td>3.</td>
<td>wałbrzyski</td>
<td>30</td>
<td>2</td>
<td>6.7</td>
<td>7</td>
<td>23.3</td>
<td>7</td>
<td>23.3</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>4.</td>
<td>wrocławski</td>
<td>37</td>
<td>3</td>
<td>8.1</td>
<td>20</td>
<td>54.1</td>
<td>4</td>
<td>10.8</td>
<td>7</td>
<td>18.9</td>
</tr>
<tr>
<td>5.</td>
<td>Total</td>
<td>126</td>
<td>7</td>
<td>5.5</td>
<td>45</td>
<td>35.7</td>
<td>21</td>
<td>16.7</td>
<td>27</td>
<td>21.4</td>
</tr>
</tbody>
</table>

Explanation: A – number of communes; B – amount; C – %

**Source:** Own compilation based on data from Urząd Marszałkowski Województwa Dolnośląskiego (the Dolnośląskie voivodeship Marshal Office)

Another group with regards to the size constitute communes which belong to type IV (industrial communes where agriculture does not play a significant role). Altogether in this group there are 30 communes and they are mainly located in the northern and southern parts of Dolnośląskie voivodeship (Fig. 3).
Type III communes – industrial communes with tourism organization, almost without agriculture, constitute spatial complementation of industrial communes, where agriculture does not play an important role (Type IV). 20 communes have been allocated to this group. Such collation showed that the region is significantly dominated by communes of diverse levels of industrial development.

Typically agricultural Type VI communes – communes dominated by agriculture which used to dominate the region, are only represented by 16 communes and are located in a mosaic pattern throughout the region. Type VII communes – communes of tourist organization, are located in Kotlina Kłodzka and are represented by Międzylesie, Bardo, Łądek Zdrój, Szczytna and Lewin Kłodzki communes. The remaining types of communes, including Type I, Type V and Type VIII are represented by fewer communes.

TRANSFORMATIONS OF COMMUNE TYPES IN 1996 AND IN 2005

In 1996 the region was dominated by type VI – communes dominated by agriculture, no tourism organization, and almost no industry. Altogether 48 out of 126 analysed communes belonged to this group. The next with regards to size were type IV communes – industrial communes, where agriculture does not play an important part and also type VIII – communes of almost no industry and agriculture without tourist organization – 21 communes each. Applying the same criteria of delimitation in 2005 a different state of functional allocation of communes was noted. In Dolnośląskie voivodeship Type II dominated (industrial communes dominated by agriculture, without tourism) – altogether 47. The next group constituted the communes of Type IV and III – industrial communes without agriculture and industrialised ones with organised tourism – respectively 30 and 20 communes (Fig. 4).

Fig. 3. Types of rural and urban-rural communes in 2005
Source: Own analysis

Fig. 4. Allocation of communes in accordance with type in 1996 and in 2005
Source: Own compilation based on data from Urząd Marszałkowski Województwa Dolnośląskiego (the Dolnośląskie voivodeship Marshal Office)

The research results presented in Fig. 4 show a significant dominance of industrial type communes in 2005. The opposite was visible in 1996 when the region was dominated by communes of various levels of agricultural function development.
The political transformation which took place in Poland at the beginning of 1990 led to the collapse of many branches of industry which was particularly felt in communes located in the Sudety region, which in the main part had not been functionally identified in 1996 (Type VIII). In 2005 these communes already constituted the group of industrial communes. A comparison of commune types in the analysed years allows a conclusion that the functional changes which have been taking place in rural and urban-rural communes of Dolnośląskie voivodeship attest to their better economic situation.

CONCLUSION

Research has shown that in the region the number of communes where the tax from agriculture activities constitutes 25% of the total taxes from business activities decreased from 55 in 1996 to 16 communes in 2005. It means that there is now a trend to depart from agricultural activities towards development, strengthening or revival of new functions. At the same time the share of communes where employment in industry constitutes 25% of total employment increased from 40 in 1996 to 100 communes in 2005.

The comparison of communes analysed in the given years allow us to conclude that the functional changes taking place in rural and urban-rural communes of Dolnośląskie voivodeship signify an improvement in their economic conditions. Part of the communes from the semi-mountainous region has not have the alternative to develop in the agricultural direction due to the poor quality of production space. natural conditions in semi-mountainous and mountainous areas destine rural and urban-rural communes to develop other functions than agricultural ones and in the face of the collapse of industry in those communes no dominating type of communes appears.

Communes located in the proximity of large towns of the region (Bolesławiec, Lubin, Głogów) were also classified as Type VIII in 1996 (without one developed dominating function), despite better agricultural usefulness of soils. Arguably it resulted from the restriction or disposal of jobs in the nearby towns together with the lack of developed agricultural function of these communes. In 2005 these communes already belonged to Type IV (industrial communes where agriculture does not play a significant role).

It is also important to stress that the very big functional transformation regarding 1996 took place in the area of influence of Wrocław City. Suburban communes which are characterised by a high agricultural usability of soils and dominated by agricultural functions in 1996, in 2005 were qualified to communes of different level of industrial development (only Żórawina and Borów) and therefore remained as agricultural type.

REFERENCES

Heldak, M. 2008: Przemiyan funkcjonalne obszarów wiejskich Sudetów po integracji z Unią Europejską. In Infrastruktura i ekologia terenów wiejskich, Polska Akademia Nauk, Oddział w Krakowie, Kraków: Komisja Techniczna Infrastruktury Wsi.

CORRESPONDENCE TO:

Maria Heldak
Wrocław University of Environmental and Life Sciences, Department of Spatial Management
Grunwaldzka 53, 50 – 357 Wrocław, Poland
phone: +48 713–205–616
[e-mail: a.heldak@wp.pl]