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## Transforming the functional structure of Poland's rural areas

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**Abstract:** *This article is devoted to changes in the functional structure of Poland's rural areas in the years 1988-1999, that is – in the period of transition from the socialist to market economy and the country's preparations for the EU accession. As the result of functional classification of rural areas carried out in 1999, it proved possible to identify ten functional classes, which can be associated into five groups (i.e. areas with an agricultural function, with equal contribution from different functions, with prevalent forestry, with prevalent tourist/rest-and-recreation function, and with prevalent non-agricultural function).*

*The functional classification obtained revealed that the ten-year period brought a strengthening of the agricultural function in central and eastern Poland, while the West and parts of the South witnessed an increase in the significance of functions outside agriculture. The latter were the result of the development of new economic activities, including farms engaging in the processing of agricultural products and the rendering of different kinds of services. In areas with a prevailing agricultural function, there has in general been a decline in the significance of the market-related agriculture, and an increase of its role in the self-supply for rural inhabitants.*

**Key words:** *Poland, functional structure, rural areas, agriculture*

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### Introduction

During the last ten to twenty years, Polish rural areas have been under the influence of processes and phenomena that have resulted from the need to adjust the country's economy to a new socio-economic system. The ongoing transformation in the physical development of rural areas is such that it generates or reveals different social, economic or environmental problems whose range and scale differ markedly from region to region. There is also a change in the functional structure of rural areas hitherto dominated by agriculture. The fact that this has an influence on the functional structure of Polish rural areas is attested to by the observation that employment in agriculture accounts for some 16% of the professionally active population<sup>1</sup>, while the country's almost 2 million farms manage around 60% of the territory of Poland.

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<sup>1</sup> The figures for the percentage of employed in agriculture vary markedly from source to source. According to the Central Statistical Office, 27% of the professionally active are in farming. In contrast, in recognising that only some of those working in agriculture do so full time, some agricultural economists say that the figure is only around 14%. In turn, in the author's opinion, the figure may be estimated at between 16 and 18%.

The task of this study has been to recognise and assess the changes in functional structure having occurred in Poland's rural areas after 1989<sup>1</sup>, while paying particular attention to the factors stimulating the development of new economic activity outside agriculture. The latter are critical to the development of rural areas and to improving the existence of the rural population. Studies in monofunctional areas are conducive to the view that the social phenomena present are unfavourable (depopulation and ageing), as are those in the economic sphere (a decline in the profitability of production, slow development of technical infrastructure and a lack of new investments).

The processes inherent in structural change in rural areas are proceeding unevenly and in a manner that is very much dependent on the historical background. It is possible to distinguish three historical regions: 1) the Congress Kingdom of Poland (prior to World War I in the part of Poland occupied by the Russians), 2) Galicia (the Austrian part of Poland prior to WWI) and 3) Wielkopolska and Pomerania (which were in Prussian hands). To be added to the latter are the Western Lands gained (regained) by Poland after World War II. These different areas show different levels of economic and societal activity, as well as various dynamics of development. The highest levels of socio-economic activity are characteristic of the western part of the country, followed by the former Galicia and then the area once forming the Congress Kingdom (*Polska wieś...* 2002).

## Research procedure

The first stage of the research entailed establishment of the contemporary picture of the functional structure of rural areas in Poland, so that it could be compared with the earlier work, done for the 1980s<sup>2</sup> (Stola 1982, 1984, 1992). The comparison was facilitated by the use of the same procedure and the analysis of a similar set of diagnostic features<sup>3</sup>, characterising the basic elements of the spatial structure of rural areas (Bański and Stola 2003).

The work on the functional structure of rural areas accounted for all the parts of the country at the level of the gmina (local authority area)<sup>4</sup>. The primary sources of information were materials collected by the Central Statistical Office. On the basis of the earlier work, dating from 1988, and the available statistical data-

<sup>1</sup> The year 1989 saw the commencement of the political and economic reforms that brought an end to Poland's socialist economy.

<sup>2</sup> On account of the actual liquidation of the state agricultural sector after 1989, no analysis of the characteristic "share of nationalised agricultural land" was made.

<sup>3</sup> The work on the functional structure of rural areas in Poland done in the 1980s was mainly carried out by W. Stola. One of the most important results from this work was the map of "Functions of Rural Areas", published as a part of the National Atlas of the Republic of Poland (Atlas Narodowy Rzeczypospolitej Polskiej), 1996.

<sup>4</sup> Poland has now a three-tier administrative division into 2486 gminas (communes), 308 poviats (counties) and 16 voivodships (provinces).

bases, a choice was made of eight diagnostic features that would allow for a functional classification of Poland's rural areas in 1999 (Table 1).

**Table 1.** Diagnostic features and measures thereof selected for classification of rural areas in Poland in 1999 from the functional perspective

No.	Diagnostic feature	Measure
1.	Share of agricultural land	Percent of all land under agricultural use
2.	Labour intensity of agriculture	No. employed per 100 ha of agricultural land
3.	Commercial viability of agriculture	Percentage of farms producing for the market
4.	Level of forest cover	Percent of all land under forests
5.	Intensity of tourist management	No. of overnight accommodation places in tourist and recreational facilities per km <sup>2</sup>
6.	Non-agricultural population	Percentage of persons working outside agriculture
7.	Employment in industry and construction	Percentage of the professionally active population employed in industry and construction
8.	Businesses outside agriculture	No. of businesses outside of agriculture per 10,000 people of productive age

Source: author's own work.

To facilitate the comparison of measure values, a normalisation process was carried out (Table 2). This entailed distinction of five class intervals for each measure, these intervals associated with a value for a class varying between 1 and 5. The assumption proceeded upon was that all measures were of equal worth from the point of view of their influence on the functional classification of units. Each gmina (local authority area) in Poland could be described by an 8-element set of variables forming a code (e.g. 1,2,4,3,5,1,3,3).

**Table 2.** Standardisation of measures

Measures of features	Classes				
	1	2	3	4	5
1. Percentage share of agricultural land	10–30	30–50	50–70	70–90	>90
2. No. of employed per 100 ha of agricultural land	1–10	10–15	15–25	25–35	>35
3. Percentage of farms producing for the market	0–10	10–20	20–40	40–60	>60
4. Percentage of land under forests	0–10	10–20	20–40	40–60	>60
5. No. of overnight accommodation places in tourist and recreational facilities per km <sup>2</sup>	0–1	1–2	2–6	6–10	>10
6. Percentage of persons working outside agriculture	0–20	20–40	40–60	60–80	>80
7. Percentage of the professionally active population employed in industry	0–10	10–20	20–40	40–60	>60
8. No. of businesses outside agriculture per 10,000 people of productive age	0–500	500–700	700–800	800–1000	>1000

Source: author's own work.

A further step was the arbitrary determination – on the basis of empirical data – of model-codes for different functional types of commune (Table 3). Such model-codes were devised by analysing more than 2000 administrative units, as well as the conclusions drawn from work of the same type carried out in the 1980s. Ultimately, some 10 functional type-models of gminas were distinguished. These do not represent a closed set, since other countries possess other identifiable functional types of new kinds that are not yet encountered in Poland. Moreover, the types presented are capable of being made more specific through separation of sub-types.

**Table 3.** Functional Type-models of gminas

Type-models	% of all land under agricultural use	No. of employed per 100 ha of agricultural land	% of farms producing for the market	% of all land under forests	Overnight accommodation places on tourist premises per km <sup>2</sup>	% employed outside agriculture	% employed in industry and construction	No. of non-agricultural businesses per 10,000 people of productive age
1 Agriculture of limited intensity and commercial viability	4	3	3	2	2	2	2	2
2 Intensive and commercially viable agriculture	4	5	5	1	1	3	2	3
3 Mixed agriculture of types 1 and 2	4	5	2	2	1	3	2	5
4 Agriculture + non-agricultural functions	3	3	3	3	3	3	3	3
5 Equal shares of different functions	1	3	2	4	1	4	3	4
6 Forestry with a share of non-agricultural functions	2	2	2	4	2	1	2	2
7 Forestry with a share of agriculture	1	4	1	4	5	3	2	2
8 Tourism and recreation with a share of forestry and agriculture	3	3	3	2	5	4	3	3
9 Tourism and recreation with a share of non-agricultural functions	3	2	2	3	1	5	5	3
10 Non-agricultural (service, residential and other) functions	3	4	3	2	2	5	2	5

Source: Bański and Stola 2003.

The last stage of work was to compare the codes for each studied unit with the code-models. If the taxonomic distance established in this way<sup>1</sup> – expressed as the sums of departures from code-models – was minimal and did not exceed a determined limit value, then the functional type of a given unit was recognised as belonging to the type represented by the given code-model.

<sup>1</sup> Taxonomic distance was calculated according to the formula:

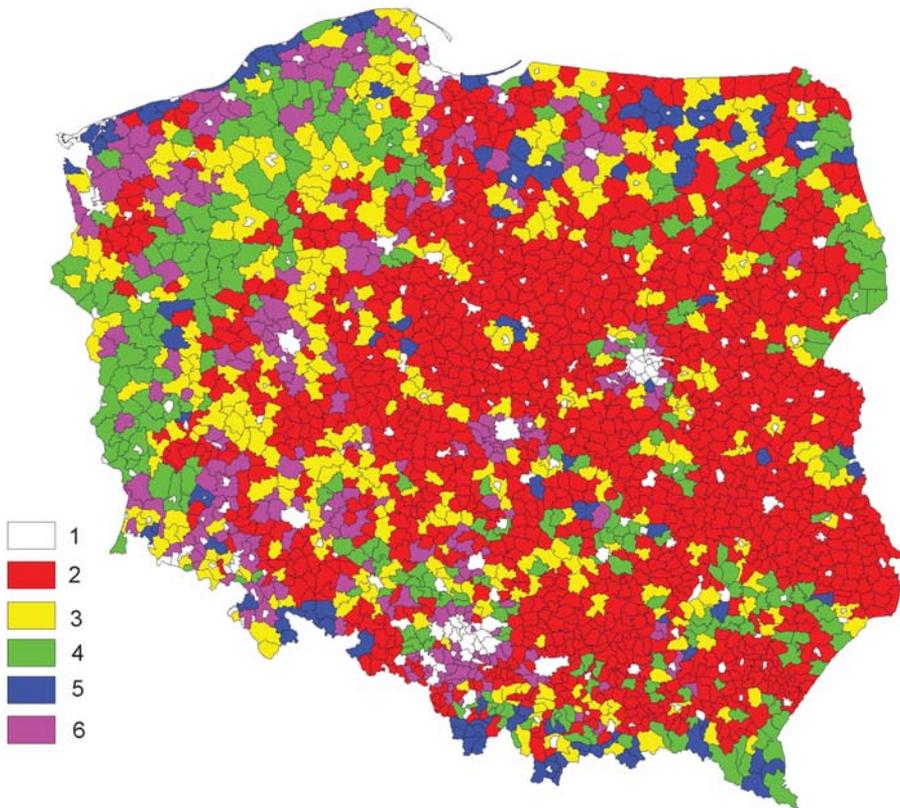
$$D_{kl} = \sum_{j=1}^n |a_{kj} - a_{lj}|$$

where:  $D_{kl}$  is the taxonomic distance between the k-th unit and the l-th unit;  $a_{kj}$  is the normalised value of the j-th feature for the k-th unit;  $a_{lj}$  is the normalised value of the j-th feature for the l-th unit; n – no. of features (8)

It was thus accepted – in theory at least – that the result of the classification would be a distinction of ten functional categories of rural areas accounting together for a majority of gminas. It was also anticipated that the functional structure of certain units might be “transitional”, i.e., similar to two type-models; or else quite distinct, i.e. not similar to any of the 10 type-models. In the case of this study, however, the decision was taken to include all such units to one or other of the ten types.

This functional classification of Poland's rural areas allowed distinguishing 10 functional classes, which were in turn combined together into 5 groups for the sake of the present study (Figure 1):

- 1) areas with prevailing agricultural function (classes 1, 2, 3, 4),
- 2) areas with equal shares of various functions (5),
- 3) areas with prevalence of forestry (6, 7),
- 4) areas with prevailing tourist and recreational function (8, 9),
- 5) areas with prevailing non-agricultural (i.e. industrial, residential or service-related) functions (10).



**Figure 1.** Functional classification of rural areas in Poland as of 1999  
 1 – towns and cities, 2 – prevailing agricultural function, 3 – mixed functions, 4 – prevailing forestry function, 5 – prevailing tourist function, 6 – prevailing non-agricultural functions

## Gminas with prevailing agricultural functions

Polish society in general identifies rural areas with agriculture. Agricultural landscape combines with the fact that agriculture is associated with more than half of the countryside's inhabitants to ensure that the traditional concept of rural areas remains unchanged. Agriculture is still the dominant economic function, with gminas featuring it as a prevalent function forming the largest group (1238 of them). The greatest concentrations of this kind of communes exist in the East and centre of the country, however. These are mainly monofunctional areas in which other economic activities (services, tourism, residential functions and industry) are of a "trace" character.

Gminas with domination of agricultural function were divided into four types that differed in regard to agrarian structure and the level of development of agriculture, as well as the types and shares of functions that co-occur. The primary differentiation concerns the intensity of labour inputs and the degree to which production is commercially viable. The following functional classes were distinguished:

- agriculture of limited intensity and commercial viability,
- intensive, commercially viable agriculture,
- mixed agriculture with shares of classes 1 and 2,
- agriculture plus non-agricultural functions.

Gminas belonging to Class 1 (limited-input, low-viability agriculture) occur mainly in the East and centre of Poland. Farming is characterised there by traditional means of management and average or low productivity, reflecting both unfavourable natural conditions and the level of socio-economic development (e.g. education, equipment with technical infrastructure, methods of production, and demand system) that is lower than in other parts of the country. In addition, the areas in question suffer from unfavourable demographic processes manifested through depopulation and ageing of the remaining populace (Eberhardt 1989; Stasiak 1990).

When compared with Western European countries, the level of development of agriculture of eastern and central Poland can be said to be several decades behind. Luckily, it is possible to see some kind of consolation prizes in the sheer backwardness characterising Poland. The period of the so-called "post-productivism", which B. Ilbery and I. Bowler (1998) saw as being characterised by extensification, deconcentration and diversification, is something that represents a chance for Polish farming. From many points of view (extensive methods of production, the use of mineral fertilisers at one-third and of pesticides at only one-seventh of the respective levels in Western Europe, and the multi-directional nature of output) it is closer to the new prerequisites of the Common Agricultural Policy than is farming in Western Europe.

The Class 2 areas (of intensive and commercially-oriented agriculture with major inputs of labour) are generally grouped around main urban agglomera-

tions, with the agricultural function accompanied by others (most often the residential and service-related).

Agriculture in the vicinity of towns and cities is characterised by large inputs of labour and capital, as well as by a higher level of productivity and commercial viability. In general it specialises in garden production (of fruit, vegetables, flowers, etc.) and is targeted at the direct needs of the urban market (Gałczyńska 1992).

Since the time Poland's Associate status with the EU was being negotiated, an increased level of import of agriculture products, combined with rising costs of domestic output, made farmers face the ever greater problems in finding markets. Profitability has declined, as well, though there has been a development of activities outside of agriculture, which altogether contributed to the reduction of the relative significance of agriculture within the functional structure.

Competition between farming and other functions – notably the service-related and residential – is however leading to an increase in conflict where land use is concerned. The 1990s witnessed an increased dynamics of two mutually exclusive processes, as an absorptive market stimulates increased agricultural intensification and production, while the territorial and population-related expansion of towns and cities that brought this into being eats steadily into the available resources of farmland (Bański 2002). The dramatic rises in land prices at the beginning of the 1990s favoured the processes that removed land from agriculture and saw the sites in question designated for other purposes. In the areas around cities in particular, the price of land had risen as much as 10–20 times over in recent years.

The same functional class (Class 2) also includes communes with agriculture of relatively great commercial viability and intensity, reflecting major outlays of capital. This kind of farming is above all representative of the Wielkopolska, Kujawy, Vistula Delta and Silesian Lowland areas of Poland, which will in future provide the backbone of the system by which Poles are supplied with food. Agricultural functions here are associated with activities in the service for farming and processing of its output. The local farmers are better prepared than any others for competing against those in the EU, and – as their own statements make clear – they are not afraid of their future after 2004. A further confirmation of this comes with the recent results of Poland's referendum on EU accession, as the greatest proportions of proponents among rural populations were to be found right here (compared with the greatest Euroskepticism observed in eastern Poland).

Alongside gminas of Classes 1 and 2 are those of Class 3 in which we find the mixture of Class 1 and Class 2 agriculture. In terms of their functional structure, these may be considered either transitional, or more similar to one or the other of the aforementioned classes. They bridge the gap between modern and tradi-

tional farming, in that they have both highly commercial farms and ones producing solely for their own needs.

Functional class 4 (agriculture plus functions outside agriculture) represents a very specific type termed “social”, albeit with a share of other functions, mainly the residential and the service-related. “Social” agriculture produces for the needs of its own people, while deriving its main income from non-earned sources (various pensions and benefits). It is present in areas with a fragmented agrarian structure and a large share of plots that are not true farms (of less than 1 ha). Gminas in this class are concentrated in the south-east of Poland.

Indeed, the rural areas of south-eastern Poland stand out for many reasons. They are characterised by the highest population densities and the greatest agrarian fragmentation, as the average farm holding varies in size between 3 and 5 ha. More than 80% of the farms there (especially in the voivodships of Małopolska and Podkarpackie) have less than 5 ha of area. Moreover, these are mostly divided into several (sometimes up to 10–20) separate plots scattered over a large area.

### **Gminas with equal shares of different functions**

The communes included in Class 5 (with mixed functions) are characterised by the lack of clear domination of any function. They are located primarily in the North and West – in areas where the State Farms (PGRs) controlled some 3.8 million ha of land in the 1980s (or more than 75% of all farmland in these regions).

The complex functional structure of these gminas has arisen primarily on account of the development of activity outside agriculture - in services or production, or else because of a decline in the significance of productive agriculture following the closure of the State Farms (as in Pomerania, Warmia-Mazury). The former state farm land was taken over by the Agency for Agricultural Property of the State Treasury (AWRSP), or else by private agriculture which has been in a position to establish large-scale farms (Zgliński 2001). However, in the face of a lack of buyers, a large part of the AWRSP holding is currently lying fallow.

The complex functional structure of the Class-5 gminas is the effect of superposition of consequences resulting from the growth of the numbers of entities engaging in economic activity outside agriculture (including also on-the-farm activities). Unlike the East of the country, these areas have seen a recent activation of non-agricultural functions diversifying the incomes of rural households.

### **Gminas in which forestry prevails**

The next two functional classes of rural areas (6 and 7) are, respectively, those in which there is forestry with a share of non-agricultural functions or forestry

with a share of agriculture. They feature forestry over a significant part of their area (mostly more than 40%), but are otherwise very varied from the point of view of both the structure of the co-occurring functions and the status of forestry itself.

Class 6 features forestry with a share of different non-agricultural functions ranging from the residential and tourist/recreational (as in the Bieszczady and Świętokrzyskie Mountains) through the service-related and commercial in western border regions. In contrast, Class 7 has forestry plus agriculture in the form of small-farming (as can be seen mainly in the Suwałki Lakeland and the Carpathians), or else large-scale farming on the former State Farm land.

Forests were long treated first and foremost as sources of raw materials. However, air, water and soil pollution came to threaten a considerable area – estimated at nearly a quarter of the total forest area in the 1990s. Fortunately, the situation has somewhat improved in the last few years, primarily as a result of the closure or restructuring of industrial plants, along with increased outlays on environmental protection in general. Some significance should also be assigned an increase in awareness on a part of the public that forests have important non-productive functions.

Forestry strengthens local economies if it is conceived of more broadly than in the past, i.e. not simply as a subject for clear-cutting and raw-timber production, but also as a resource that can serve important societal and environmental functions. The latter functions beyond mere production are ever better-recognised in Poland, such that the economic and social practice in forestry in the 1990s and early 2000s can be said to have taken a significant step towards the new model of the forest, termed “post-industrial” by Mather (1990).

In accordance with the *National Programme for the Augmentation of Forest Cover*, which had been in implementation since 1995, an additional area of 700,000 ha is to be afforested by 2020. At present, some 18,000 ha a year are being planted mainly on land of limited suitability for agriculture, handed over by the Agency for Agricultural Property of the State Treasury. Unfortunately, the area of private land turning into forests remains very limited, though this may change following the introduction of incentives in the form of covering the costs of planting and tending, and assistance with the development of forest infrastructure. Denmark can provide an example of this kind of favourable transformation (Jansen 1993), as can Ireland (Gillmor 1992), both being among the most deforested countries in Europe. Thanks to an appropriate “forest policy”, as well as financial assistance from both the state and Brussels, these countries have been able to play host to a dramatic increase in the area under forest.

### **Gminas with a prevalent tourist and recreational function**

The next two functional classes of rural areas (8 and 9) are the ones featuring tourism and recreation with a share of forestry and agriculture, as well as those

based on tourism and recreation with a share of non-agricultural functions. They stand out for their high level of development of tourism and recreation, and differ from each other in regard to which functions accompany the above. Thus Class 8 has also forestry and to a lesser extent agriculture (mainly that with large inputs of labour, which is self-supplying or of limited commercial viability), with gminas representative of it being located in the Carpathians, the Suwałki Lakeland and occasionally elsewhere. In contrast, in Class 9, the tourist and recreational function is generally supplemented by the functions developing outside agriculture, be these service-related or residential. This class is mostly present in coastal areas and the Mazurian Lakeland, as well as in the Sudety Mountains, and sporadically around the largest cities.

The quality of tourist services rendered in rural areas is not always satisfactory. Tourist development must be accompanied by a change in the rural economy, and above all an improvement in social and technical infrastructure, associated with increased opportunities for the obtainment of cheap loans, greater help from local government institutions and training in agro-tourism.

Nevertheless, tourism has become a realistic supplement to agriculture in some areas. The number of farms offering tourist services is increasing, so that there were 11,300 of them – with 126,400 places – by 2000. They were present in every voivodship, but mostly in the traditional holidaymaking areas.

Recreation during shorter periods of the “long weekend” type is taking on high significance in rural areas. It is naturally developing mostly near the large cities, wherever there are forests and waters. What is involved here first and foremost are the second homes that have been popular in Poland for a long time already. Perhaps unfortunately, the pressure this exerts in some areas is great enough to force the departure of agriculture from the land, which is now designated for the building of summer homes. In this context, local physical development plans are even being modified in order to accommodate such changes, while the land prices obtainable are several times higher than they would be if farming were simply to continue in the areas concerned.

### **Gminas with prevailing non-agricultural functions**

Class 10 is specific in that it comprises gminas in which the prevailing functions (already) lie outside agriculture. Their functional structures have been shaped by the direct impact of urbanisation processes and a major growth in non-agricultural economic activity, including that pursued on farms themselves. While this kind of activity is taking on increased importance nationwide, the development is particularly marked in the West of the country.

Communes with prevailing non-agricultural functions are mostly concentrated in the North and North-west, as well as around the larger agglomerations, mainly within the urbanised gminas. Owing to a decline in the profitability of agriculture and an increase in land prices when land is designated for non-agri-

cultural purposes, there is an ever greater importance attached to residential, recreational (mainly long-weekend), service and productive functions. Attesting to this is a dynamic growth in the numbers of entities engaging in economic activity outside agriculture (Kołodziejczyk 1999). What favours this in the hinterlands of cities, for example, are the much lower labour costs than in the urban areas themselves.

Areas whose functional structure has been shaped under the direct influence of urbanisation and industrialisation processes are mainly the ones that are highly transformed from the socio-cultural and settlement points of view, as well as in terms of the state of their natural environment.

An interesting phenomenon, new to Poland, is the trend for urban inhabitants to migrate out to rural areas, to the extent that it is possible to speak of a process of suburbanisation. Areas in the immediate vicinity of cities have positive migration balances, while the people flowing into them are mainly from those cities. In general, farther away from larger urban areas, migration balance again becomes negative.

Those deciding to turn their backs on the big city, at least in terms of residence, are the wealthy and well educated. Moreover, it is by no means unusual for them to bring the seats of enterprises they run with them as they move. Such a phenomenon does offer a chance for rural areas to develop, also favouring a raising of the level of technical and social infrastructure that has to meet the more exacting requirements of the new rural residents.

### **Selected factors stimulating the development of new functions in rural areas**

These factors may be divided into three groups, of 1) social, 2) economic and 3) technical factors. The most important of the social factors include migration, education of rural residents and age structures of their populations.

In each successive post-war year Poland's total population increased, while the numbers of rural population remained stable. The ongoing urbanisation of the country was thus associated with a steady fall in the proportion of rural population, as opposed to urban population. While 66% of Poles lived in the countryside immediately after the War, the figure was by almost 50% lower by 2000, solely as a result of the migration of the rural populace to the towns and cities. Rural areas with higher rates of natural increase than their urban counterparts were the primary source for the development of city populations.

What made this phenomenon particularly unfavourable for the rural areas was the fact that the cities were absorbing their young people (especially women), and hence those with more advanced education. The natural increase gradually fell as a result, such that areas of depopulation even appeared (with shortfalls in

numbers of women of marriageable age and a high share of the population that was past working age).

Among women, the greatest migration intensity is observed in the 20–24 age group, while in case of men it is the age bracket of 25–29 years (Witkowski 1990). The reasons for the departure from villages, most often cited, have been low income from farm work, inadequate technical and social infrastructure in rural areas, hard life in villages linked with problems of housing, social barriers, inadequate access to education and culture, and difficulties with finding a partner and founding a family.

The 1990s saw ever fewer people migrating to towns and cities, primarily as a result of an increasingly limited labour market and rising unemployment. Some areas even noted the reverse phenomenon, which is to say an increase in numbers heading out for the countryside. For the first time in several decades, the number of rural inhabitants increased, in spite of a clear fall in the rate of natural increase (Figure 2, 3). The 1990s can thus be considered to have brought a marked overall slackening in the rate at which Poland's population was concentrating in urban areas.

A similar phenomenon has been observable for years now in Western Europe and North America (Berry 1976; Boyle 1995; Boyle and Halfacree 1998; Champion 1989; Stockdale, Findlay and Short 2000; Dahms and McComb 1999). The so-called *counterurbanisation* is defined as a process of population deconcentration characterised by an outflow of people from areas of higher concentration to those of lower concentration (Berry 1976).

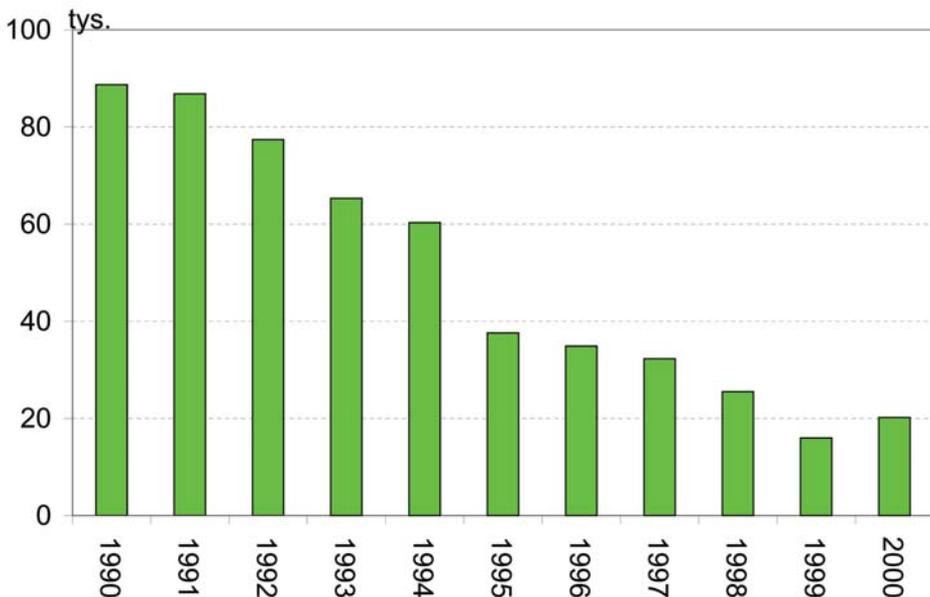
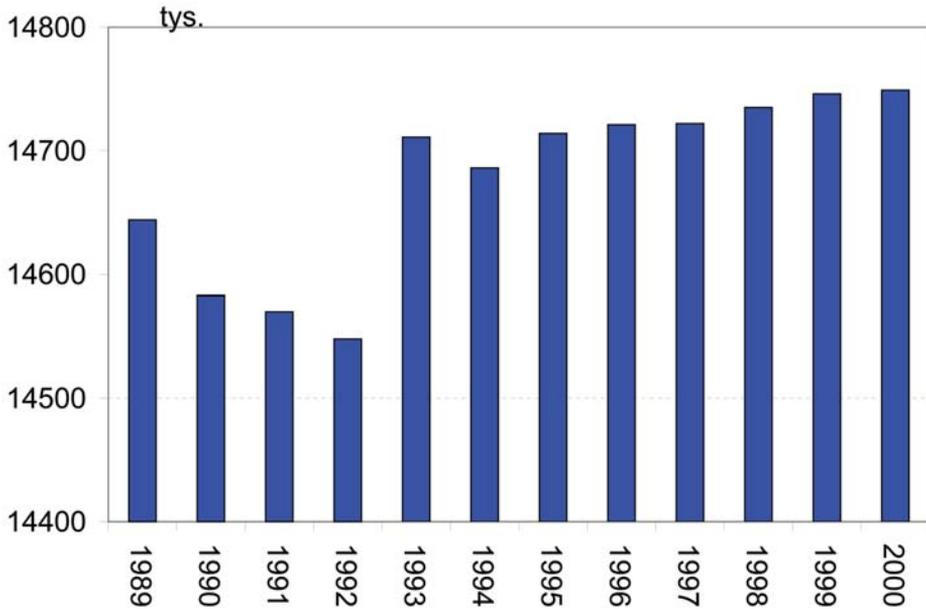


Figure 2. Birth rate of rural population



**Figure 3.** Changes in the number of rural population

However, while the EU version of the process putting the brakes on any further concentration of the population has resulted from a desire to remain – or to settle – in villages (where the environment is clean, access good and all the necessary social and technical infrastructure now in place), the situation in Poland has resulted from a contraction of the labour market in cities. As unemployment rose in the 1990s, the only people deciding to risk a move into town were the courageous or the successful. Equally, those losing their jobs in the urban areas were above all the newcomers from out-of-town, who were often forced to go back to the villages they had come from.

Though it has improved steadily, the level of education in rural areas remains much below that among town- and city-dwellers, with farmers being the worst-educated of all the social strata in Poland. The level of education of farmers obviously has a direct influence on the results of their work and the level of development of farms (Gałczyńska 1995). As of 2000, only 17.5% of those living in the Polish countryside and working in agriculture had completed their secondary education, while as few as 1.5% had university studies behind them. A brighter point is the fact that the progress with getting villagers educated is concentrated in the direction of the young. It is after all upon youth that the development of rural areas is going to depend. Nonetheless, only 2% of the students of higher education establishments originate currently from rural areas (H. and M. Ingham 2002)

The current educational status of country-dwellers does not encourage rural “development” in the broadest sense of the term (including the appearance of

new economic activities). This is particularly the case for areas in which agricultural functions prevail, where the level of education of the populace is very low. It would thus be hard to expect any major development of new economic activity outside agriculture there, at least in the next few years. Such developments do require not only the necessary means for investment, but also – maybe above all – an active approach, and a degree of inventiveness and ingenuity on the part of both rural inhabitants and the local authorities that seek to serve them.

A second group of elements stimulating the development of rural areas are the broadly conceived economic factors. These are of various kinds and levels, beginning with investing in local sites, through the incomes of gminas and of individuals. However, one of very important factor is financial assistance from the European Union within the framework of its assistance programmes (Bański 2002).

Of crucial significance for the effectiveness with which these programmes are implemented is their proper and purposefully selected targeting at different regions. It would seem obvious (and is the EU's stated intention) that the most weakly-developed areas should receive the aid, in order that their economic activation might encourage an evening-out of differences in levels of development that separate them from the highly-developed areas, which they lag behind. Meanwhile, the greatest number of projects associated with the assistance programmes of the EU is actually being implemented by the strong and powerful local and regional authorities. In turn, the local authority areas that are less developed in economic terms – in which dispersed agriculture of limited commercial viability predominates – find it difficult to bring together the financial means and qualified personnel necessary if creative and competitive projects are to be devised.

From among the three programmes involved (PHARE<sup>1</sup>, SAPARD<sup>2</sup> and ISPA<sup>3</sup>), it is PHARE that is the most advanced and that has been under implementation for the longest time period. It started just after the Eastern Bloc fell apart, and the years 1990-2001 saw Poland obtain around 3 billion euros from it (around 30% of the Programme's entire budget).

A large part of the PHARE funding was directed at what might generally be termed the development of rural areas, albeit it is hard to put a figure as to just how much, since tasks with this kind of operational profile have not been separated from the others. It is, however, possible to estimate the sums designated to the development of agriculture as such. PHARE assistance in this sphere began in 1990, with a material input worth 100 million ECU in the form of fodder, mineral fertilisers, plant protection agents, etc. Through the subsequent years, until 1997, around 100 million euros were designated with a view to developing agriculture. In the following years, assistance funding was steadily switched

<sup>1</sup> PHARE – Poland and Hungary Assistance for the Reconstruction of Economies.

<sup>2</sup> SAPARD – Support for Pre-Accession Measures for Agriculture and Rural Development.

<sup>3</sup> ISPA – Instrument for Structural Policies for Pre-accession.

towards issues linked to European integration (the adjustment of legal regulations, institution-building, etc.). This entailed the fact that the sums involved were not as significant for rural areas as had been the case in earlier years.

Foreseen for spending in Poland in 2000 were some 484M euros, of which a great part (some 180M) was to be allocated to “social and economic cohesion” in areas hitherto little supported by the PHARE funds on account of their inability to participate.

The obtainment of assistance funding is very much dependent on one having a well-prepared and justified project. What counts in connection with this is the knowledge and innovativeness on the part of these competing for funding. It turns out that the PHARE assistance funding allocated previously has indeed shown a correlation with the level of education of gmina councillors. It is probably the characteristic that has been more important in determining the size of contracts than the actual level of need.

The ISPA Programme is a pre-accession instrument of structural policy that seeks to support developments in the fields of environmental protection and transport. Some 351 million euros were allocated from it to Poland in 2000. Part of the money goes into rural areas, especially where the transport-related projects are concerned. When it comes to environmental protection, funding is mainly going to large urban centres, with a view to wastewater management being improved there (and hence in the country as a whole).

The SAPARD Programme called into being by the Council of the European Union in 1999 had hardly been put into effect at all as of the end of 2002. This was the dual fault of the EU administration, for using complicated bureaucratic procedures, and of the Polish side (especially the Agency for Restructuring and Modernisation of Agriculture), which was not prepared for the implementation of the task. In line with assumptions, implementation of the programme was to have commenced in 2000, with agriculture and rural areas to obtain support worth 169 M euros a year.

SAPARD actually started work at the beginning of 2003. The three-year delay equates to some 500 million euros that Polish rural areas and agriculture could have made use of. In line with the principle of additionality, public and private means added on to those from the EU would have meant diverse help for the Polish countryside worth a total of 1.2 billion euros.

Again, however, the implementation of SAPARD will prove difficult in the poorly developed areas. To obtain assistance funding under it, half of project costs have to be met from one's own resources. In consequence, it can only be anticipated that most of the SAPARD funding will feed in to areas where agriculture is already in a relatively good condition.

The third group of factors stimulating the development of rural areas is made of the technical factors, among which the outfitting of rural areas in technical infra-

structure is particularly noteworthy. Poland shows marked spatial differentiation from this point of view, with a particularly distinct difference characterising urban, as opposed to rural, areas (Węclawowicz 1996). In 2000, 877 out of 880 towns and cities had mains water, 845 a sewer system, all 880 electricity and 614 – gas supply. The infrastructure of towns and cities can thus be considered relatively satisfactory, even if the technical condition is of varying quality. The backwardness of rural areas in these respects (Table 4) results above all from the dispersed nature of the settlement network and the high development costs entailed.

**Table 4.** Percent of dwellings with various installations in 2000

Installations	Urban	Rural
Mains water	97.6	83.1
Flush toilet	90.3	63.8
Bathroom	88.3	67.6
Mains gas	76.7	15.9
Central heating	80.8	53.3

Source: 2001 Statistical Yearbook, Central Statistical Office.

However, the last decade has brought a clear improvement in the level of equipment of rural areas with infrastructure. Construction of water pipelines, sewer systems and wastewater treatment plants has been given priority in most rural gminas.

The highest degree of backwardness as regards technical infrastructure is observed on the area stretching between central Poland and the eastern borderlands, where for example some 30–40% of small farms have neither sewerage nor a septic tank. A frequent phenomenon is thus the discharge of liquid waste directly to the ground. How does this appear against the claims that organic farming or agro-tourism offer opportunities for the development of these areas?

In the last decade there was a marked improvement with respect to the treatment of wastewater. While it is true that the number of treatment plants increased mainly in urban areas (from 566 in 1990 to 965 in 801 towns and cities in 2000), an increasing greater attention is now being given to wastewater treatment in rural areas.

## Summary

The elaboration of a functional classification of Poland's rural areas in 1999 resulted in the identification of ten functional classes combined into five groups. The latter include areas with prevailing agricultural functions, with equal shares of different functions, with prevalence of forestry, with prevalence of tourist and recreational functions, and with prevalence of functions outside agriculture and/or the urbanised ones.

When the results of analysis were set against similar ones from 1988, it appeared that areas with domination of the agricultural function have seen a decline in farming production and its market-related significance. In contrast, there was an increase in its significance as regards the supply of rural inhabitants with food. From this point of view, there are major differences between the rural areas of western Poland (especially the regions of Wielkopolska, Kujawy and Silesia) and those of the East. This remains in connection, not only with the level of development of agriculture, but also with different levels of overall socio-economic development, including the level of education of the populace, the degree of urbanisation and the outfitting in infrastructure. The higher the values of respective indicators, the more rapid the development – also of activity outside agriculture – in rural areas; something which finds reflection in an increased complexity of functional structure.

The classification of rural areas carried out reveals the last ten years have been a period of quite essential transformations in functional structure. Central and eastern Poland can in general be said to have experienced a strengthening of the agricultural function, while the West and parts of the South have seen the role of functions outside agriculture grow. The latter effect reflects the development of new economic activity, including the activities conducted on farms that are now processing agricultural produce and/or are rendering services of various kinds.

The work on changes in functional structure has also pointed to the presence of factors that either stimulate or hold up the development of the areas in question. In general, it proves much easier to identify the latter, which can be grouped under the social, economic and technical headings.

The present educational status of most of the rural populace does not favour the broadly conceived development in the countryside, and in particular the development of new economic activity. This is especially true of areas with prevailing agricultural function, where the level of education of the populace is very low. It is thus hard to anticipate that these areas will see a development of economic activity outside agriculture in the near future, as the latter requires not only the necessary investment means, but also (and perhaps mainly) a degree of innovativeness on the part of inhabitants.

In terms of age structure, as well, the least favourable situation is that of the areas dominated by agriculture. They are subject to marked depopulation processes and feature high rates of increase in the numbers of people of post-productive age.

A factor stimulating the development of new functions in rural areas could be the assistance funding being funnelled in by the European Union. Unfortunately, however, most of this is going into areas in which the level of socio-economic development is already the highest. Thus, instead of the much-vaunted process, by which lagging regions are being brought closer to the average through some

evening-out process, we may in fact be seeing a further development of the disparities between different rural areas.

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