

# Beata Łodyga

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## Differences in actual increase in the rural areas of Poland

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BEATA ŁODYGA

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## DIFFERENCES IN ACTUAL INCREASE IN THE RURAL AREAS OF POLAND

**ABSTRACT.** The aim of the article is to analyse how present-day demographic processes affect actual increase – its dynamics and spatial differences – in the rural areas of Poland. The research concentrated on the natural increase (births and deaths) and net migration, and covered the years 1950-2004. The spatial distribution of the selected indices was presented by commune and voivodeship. Attention was drawn to demographic processes not observed heretofore, their determinants and effect on population density in rural areas. A distinct positive actual increase was recorded in the suburban zones of large cities, but there were also depopulation areas in the countryside.

**KEY WORDS:** actual increase, rural problem areas, demographic processes.

The aim of the article is to analyse how present-day demographic processes affect actual increase – its dynamics and spatial differences – in the rural areas of Poland. The research focused on the natural increase (births and deaths) and net migration. The dynamics of those indices is presented for the years 1950-2004, while a detailed analysis is made of the between-census period (1988-2002). Such an approach allowed comparisons and a fuller analysis.

The spatial distribution of the selected indices was presented by commune (for the year 2002) and voivodeship. Demographic processes and their determinants in rural areas were discussed in terms of the theory of the second demographic transition. Rural depopulation areas were identified.

The research drew on the following publications of the Central Statistical Office (GUS) in Poland: *The 1988 National Census*, *The 2002 National Census*

of the Population and Housing, The Regional Databank, as well as statistical and demographic yearbooks.

## DYNAMICS

### NATURAL INCREASE

In the postwar period, the natural increase factors in Poland (both births and deaths) were always higher in the country than in towns (Fig. 1). Since the start of the 1980s, the natural increase has been on the decline in both types of units. This tendency led to towns showing negative values ever since 1998 (-0.2‰), while in the country the index, while low, was still positive in 2002 (0.7‰). Ultimately, over the years 1988-2002 the natural increase fell more in rural areas (from 7.4‰ to 0.7‰) than in towns (from 4.6‰ to -0.7‰). Until 2003 it kept declining, while in 2004 it grew slightly (in towns to -0.5‰ and in the country to 0.3‰).

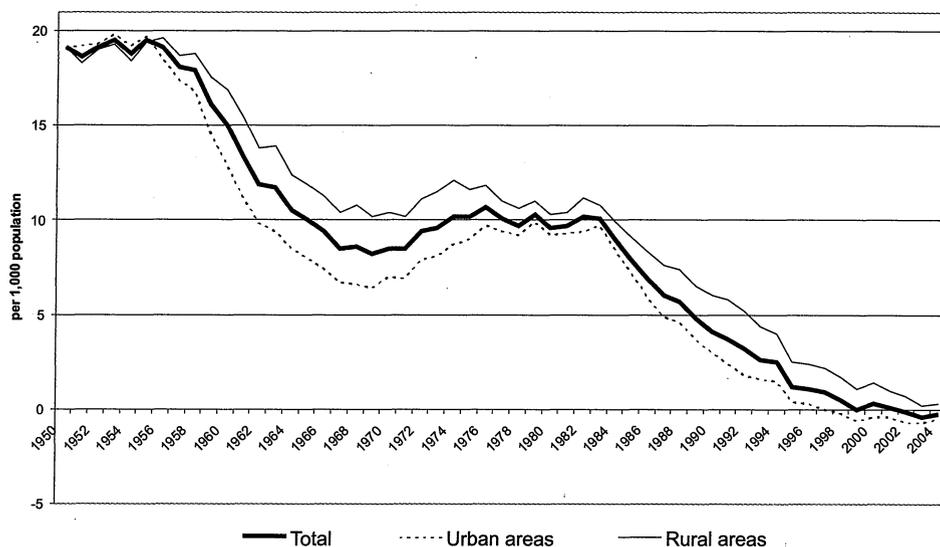


Fig. 1. Natural increase, 1950-2004

Source: own compilation based on Central Statistical Office data.

### BIRTHS

Between 1950 and 2004 there was a steady decline in rural births (Fig. 2) from 31.2‰ to 10.2‰. Between 1988 and 2002, the drop in births was steeper in the country (from 18.1‰ to 10.6‰) than in towns (from 13.9‰ to 8.4‰).

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Its main cause was a downward tendency in the fertility of women in Poland observed in both urban and rural areas since 1984, with all the partial fertility rates (in the particular age groups) being higher in the country. There was also a shift in peak fertility from the 20-24 age group to the 25-29 one, first registered in 1997 in towns and then in 2001 in the country. This development resulted from a change in the lifestyle of the young generation (especially women) manifesting itself in the aspiration to acquire a higher level of education. Priorities now included a professional career and an improvement in the material situation. With many women, the decision to start a family and have children started to come second.

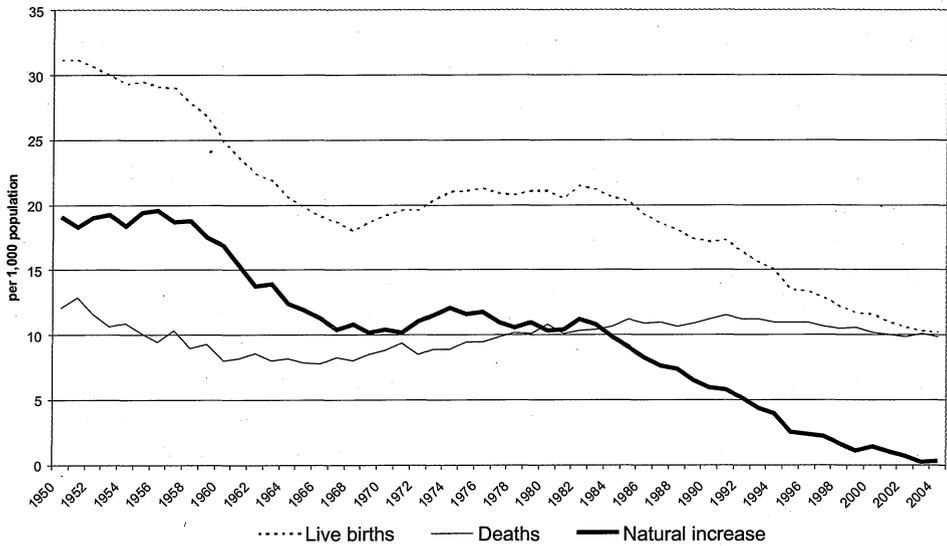


Fig. 2. Vital statistics in rural areas, 1950-2004

Source: own compilation based on Central Statistical Office data.

Over the between-census period (1988-2002), the total fertility rate (TFR, a synthetic measure describing total female fertility) declined steadily, from 1.86 to 1.11 in towns and from 2.58 to 1.49 in the country. Thus, the dynamics of TFR fall was slightly lower in the country (58%) than in towns (60%). After 2002 this tendency was even stronger, reaching 0.95 in towns and 1.03 in the country (in 2004). The steady drop in fertility has a significant detrimental effect on the population structure because it produces a decrease in the proportion of children and youth. In rural areas, the TFR has stopped securing simple replacement since 1995 (in towns since 1963). Thus, fertility patterns recorded much earlier in towns reached the countryside with a certain time lag. The adoption of the TFR patterns and family planning methods long present in Western Europe

(cf. Frenkel, 2001) and adverse socio-economic developments entailed by the systemic transformation (e.g. a dramatic drop in the level of social security, high unemployment, high prices of flats, discrimination of women with small children in the labour market, a high increase in the costs of bringing up and educating children) – all this has fixed the tendency for the birth rate in Poland to fall below the replacement level after 1989.

## DEATHS

The other factor crucial for the natural increase is deaths. Since the mid-1960s, a steady increase in the death rate was observed in Poland which was always higher in rural areas than in towns (Fig. 2). In the first half of the 1990s, this tendency was reversed as a result of an extension of life expectancy. Since that time the death rate has been on the decline, which can be regarded as an advantageous development. Over the years 1988-2002, the decline was greater in rural areas (from 10.7‰ to 9.9‰) than in towns (from 9.3‰ to 9.1‰). Another favourable fact is that since the early 1950s there has been a steady drop in infant mortality in Poland. This coefficient was higher in the country than in towns until the late 1960s. At the start of the 1970s rural and urban infant mortality rates became equal and kept falling steadily until 2002. Between 1988 and 2002, the drop in the infant mortality rate was higher in the country (from 19.7 to 7.1 per 1,000 live births, i.e. by about two-thirds) than in towns. This is a tendency advantageous to the age structure of the rural population.

In the years 1988-2002 the process of ageing of the society started to be observed in Poland, as in the majority of European states. Its direct cause was expanding life expectancies, both in towns (from 67 to 71 for males and from 75 to 79 for females) and in the country (from 67 to 70 for males and from 76 to 79 for females). The extension of life expectancy has brought about an increase in the percentage of older people (over the age of 60) in the structure of the rural population. In a broader perspective, the ageing of the population produces consequences not only in demographic, but also economic, social, health, and political terms.

## NET MIGRATION

Migrations from the country to towns for permanent stay were the second basic factor, after the natural increase, affecting the rural population size. In the years 1950-1999 net rural migration assumed various negative values (-12.8‰ and -0.3‰, respectively), and between 2000 and 2004 the figures started to be positive and ever growing. In towns the situation was reversed: until 1997 the index was positive, to turn negative in 1998 (Fig. 3). A characteristic feature of the 1990s in Poland

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was a marked slackening in population flows between the town and the country, and between voivodeships. This can be interpreted as a response to detrimental effects of the socio-economic transformation, like changes in the labour market (mass redundancies), the deteriorating material situation of a substantial proportion of households, and problems involved in the deficit of housing and its high prices.

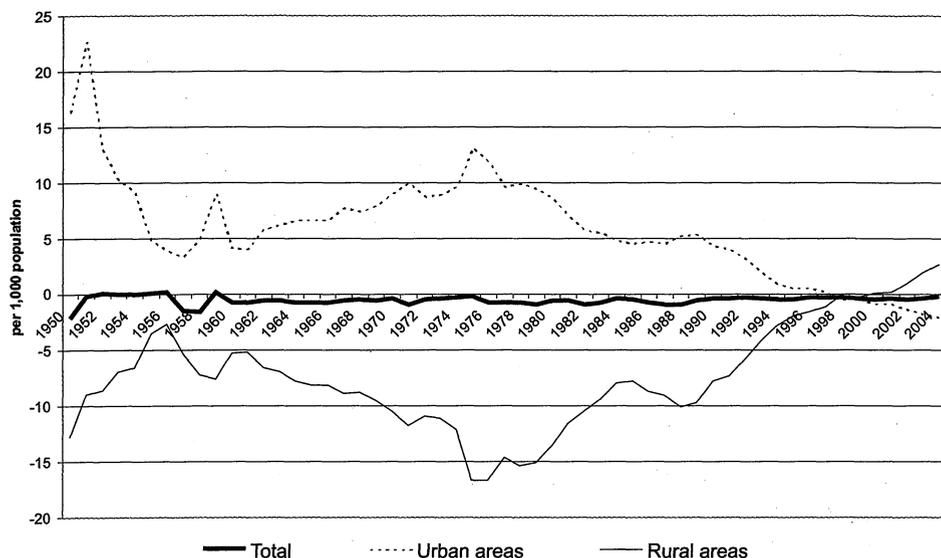


Fig. 3. Net migration, 1950-2004

Source: own compilation based on Central Statistical Office data.

Between 1988 and 2002, there was a steady decline in net migration in towns (from 5.2‰ to -1.4‰) and a substantial increase in the country (from -10.1‰ to 1.0‰, Fig. 3). In 2000, for the first time after the Second World War, the flow of the urban population to the countryside exceeded that of the rural population to towns (by about 4,000 people). The excess persisted also in the next two years, and grew to about 18,000 in 2002 (*Polska Wieś...*, 2004).

Towards the close of the 1990s, regions whose major city was one of the big metropolises (e.g., Warsaw, Cracow, Poznań, Wrocław) registered high net intra-rural (intra-voivodeship) migration gains. People coming from villages located in peripheral regions settled not in the large cities themselves, but in their rural margins. A new feature of migration observed in rural areas was an inflow of people from big cities. It was especially pronounced in regions with dynamically growing centres – Warsaw, Poznań, Cracow, the Upper Silesian conurbation, and Wrocław. There the outflow of the population from towns to the country over the years 1998-2001 was as a rule two to three times higher than in other regions. A substantial proportion of this outflow seems to have





and heavy industries as well as an unemployment rate climbing steeply after 1990. As a result of premature retirement schemes and disability benefits (provided for occupational diseases and accidents), the towns recorded an increase in emigration and shifts to suburban areas and those previously inhabited by people who had arrived in Silesia in search of work. There was also an increase in emigration abroad of the economically active population, usually to join a family (cf. Frąckiewicz, 2003). A bit smaller increase in the rural population was recorded in of Wielkopolskie (a natural increase and net in-migration) and Podkarpacie voivodeships (primarily a natural increase). The rural population increase was the smallest in Zachodniopomorskie and Lubuskie with both, a natural increase and a net in-migration.

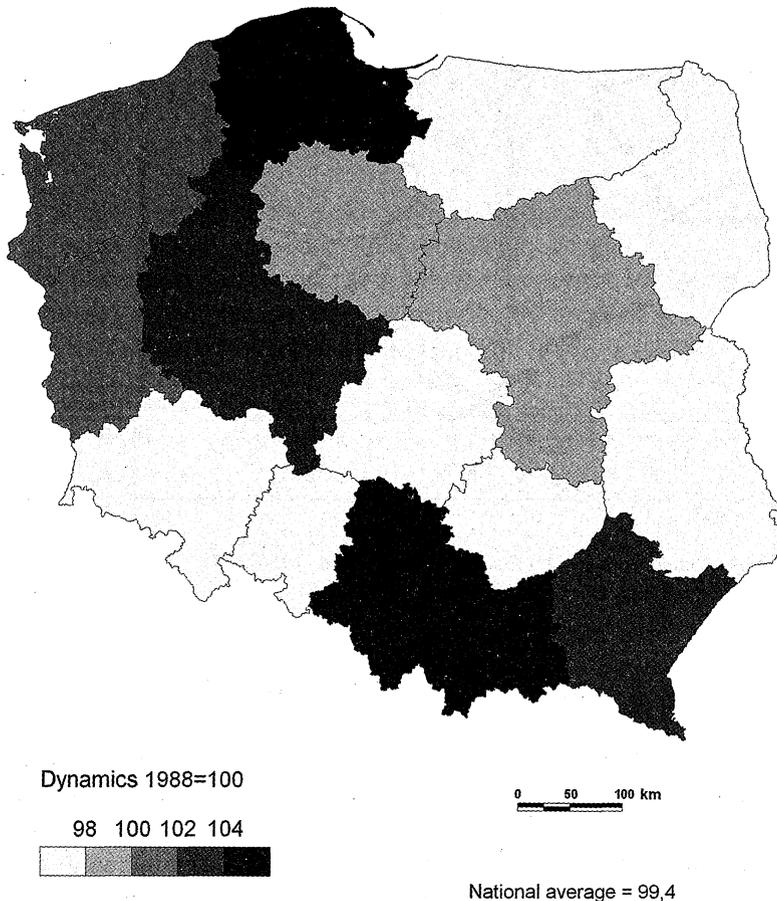


Fig. 6. Rural population, 1988-2002

Source: own compilation based on The 1988 National Census and The 2002 National Census of the Population and Housing [2002 NCPH].

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In the remaining types of voivodeships the rural population was on the decline. The most affected were Lubelskie, Łódzkie, Świętokrzyskie, Podlaskie, Warmińsko-Mazurskie, Dolnośląskie and Opolskie voivodeships. According to Potrykowska (2003), these are traditional rural depopulation areas that today form a core of the so-called rural problem areas in need of the restructuring of agriculture and the introduction of the principles of multifunctional development. The voivodeships with the smallest decrease in the rural population were Mazowieckie and Kujawsko-Pomorskie.

### SPATIAL DIFFERENCES IN SELECTED INDICES IN RURAL AREAS IN 2002

In 2002 the highest positive rates of natural increase (over 2‰) were registered in the rural areas in the north (Pomorskie, Warmińsko-Mazurskie) and south of Poland (Małopolska). These are voivodeships which showed population growth (in the country and towns) and the highest birth rates (over 12‰) since 1988. The natural increase was also fairly high in Wielkopolskie and Kujawsko-Pomorskie (ca. 2‰), and slightly lower in Lubuskie and Podkarpackie (1.7‰) voivodeships. The lowest negative rates of natural increase (under -1‰) were recorded in the rural areas of Łódzkie, Podlaskie, Lubelskie and Świętokrzyskie. This group of voivodeships lying in eastern and central Poland is characterised by a high proportion of the population of post-working age and high death rates (over 11‰, cf. Table 1). A more detailed analysis of the spatial distribution showed that in 2002 there were 56% of communes registering a natural increase in rural areas, with the index exceeding 4‰ in 16% of the communes (Fig. 7).

Table 1. Vital statistics, migration and actual increase in the rural areas of Poland in the years 2002 and 2004

| VOIVODESHIPS |                    | LIVE BIRTHS          |      | DEATHS |      | NATURAL INCREASE |      | NET MIGRATION |     | ACTUAL INCREASE |      | DEATHS OF INFANTS PER 1,000 LIVE BIRTHS |     |
|--------------|--------------------|----------------------|------|--------|------|------------------|------|---------------|-----|-----------------|------|---|-----|
|              |                    | PER 1,000 POPULATION |      |        |      |                  |      |               |     |                 |      |   |     |
| 1            | 2                  | 3                    | 4    | 5      | 6    | 7                | 8    | 9             | 10  | 11              | 12   | 13                                      | 14  |
| 1            | Total rural areas  | 10.6                 | 10.2 | 9.9    | 9.9  | 0.7              | 0.3  | 1.0           | 2.7 | 1.7             | 3.0  | 7.1                                     | 6.4 |
| 2            | Kujawsko-Pomorskie | 11.3                 | 11.1 | 9.5    | 9.2  | 1.8              | 1.9  | 1.3           | 3.9 | 3.1             | 5.8  | 9.5                                     | 7.3 |
| 3            | Dolnośląskie       | 10.0                 | 9.8  | 9.9    | 9.9  | 0.1              | -0.1 | 2.6           | 4.4 | 2.7             | 4.3  | 9.8                                     | 8.8 |
| 4            | Lubelskie          | 10.0                 | 9.8  | 12.3   | 12.3 | -2.3             | -2.5 | -1.1          | 0.1 | -3.4            | -2.4 | 7.8                                     | 8.2 |
| 5            | Lubuskie           | 10.8                 | 10.4 | 9.1    | 9.3  | 1.7              | 1.1  | 1.2           | 4.1 | 2.9             | 5.2  | 7.5                                     | 8.3 |
| 6            | Łódzkie            | 9.7                  | 9.5  | 12.3   | 12.4 | -2.6             | -2.9 | 0.6           | 2.8 | -2.0            | -0.1 | 7.4                                     | 5.6 |

| 1  | 2                   | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13  | 14  |
|----|---------------------|------|------|------|------|------|------|------|------|------|------|-----|-----|
| 7  | Małopolskie         | 11.5 | 10.9 | 8.7  | 8.6  | 2.8  | 2.2  | 2.3  | 3.0  | 5.1  | 5.2  | 6.5 | 6.1 |
| 8  | Mazowieckie         | 10.2 | 9.7  | 10.6 | 10.7 | -0.4 | -1.0 | 2.1  | 3.7  | 1.7  | 2.7  | 5.9 | 5.9 |
| 9  | Opolskie            | 8.3  | 7.7  | 9.3  | 9.2  | -1.0 | -1.4 | -2.6 | -1.4 | -3.6 | -2.8 | 4.3 | 2.9 |
| 10 | Podkarpackie        | 11.0 | 10.4 | 9.3  | 9.3  | 1.7  | 1.1  | 0.1  | 1.1  | 1.8  | 2.2  | 7.1 | 6.0 |
| 11 | Podlaskie           | 10.1 | 9.5  | 12.2 | 12.6 | -2.1 | -3.1 | -3.2 | -0.5 | -5.3 | -3.6 | 8.2 | 6.6 |
| 12 | Pomorskie           | 12.8 | 12.5 | 7.4  | 7.4  | 5.4  | 5.1  | 2.6  | 6.0  | 8.0  | 11.1 | 5.1 | 4.5 |
| 13 | Śląskie             | 9.3  | 8.9  | 9.4  | 9.5  | -0.1 | -0.6 | 2.3  | 3.6  | 2.2  | 3.0  | 7.0 | 6.6 |
| 14 | Świętokrzyskie      | 9.8  | 9.3  | 11.5 | 11.4 | -1.7 | -2.2 | 0.3  | 1.5  | -1.4 | -0.7 | 8.3 | 5.6 |
| 15 | Warmińsko-Mazurskie | 12.3 | 11.6 | 8.7  | 9.0  | 3.6  | 2.6  | -3.1 | -0.9 | 0.5  | 1.7  | 5.4 | 4.8 |
| 16 | Zachodniopomorskie  | 11.3 | 11.1 | 8.6  | 9.1  | 2.7  | 2.0  | 1.2  | 3.8  | 3.9  | 5.8  | 7.4 | 7.6 |
| 17 | Wielkopolskie       | 11.2 | 11.1 | 9.1  | 9.0  | 2.1  | 2.0  | 2.3  | 4.1  | 4.4  | 6.1  | 7.4 | 6.4 |

Source: *Rocznik Demograficzny 2003*, Warszawa, GUS; *Rocznik Demograficzny 2005*, Warszawa, GUS.

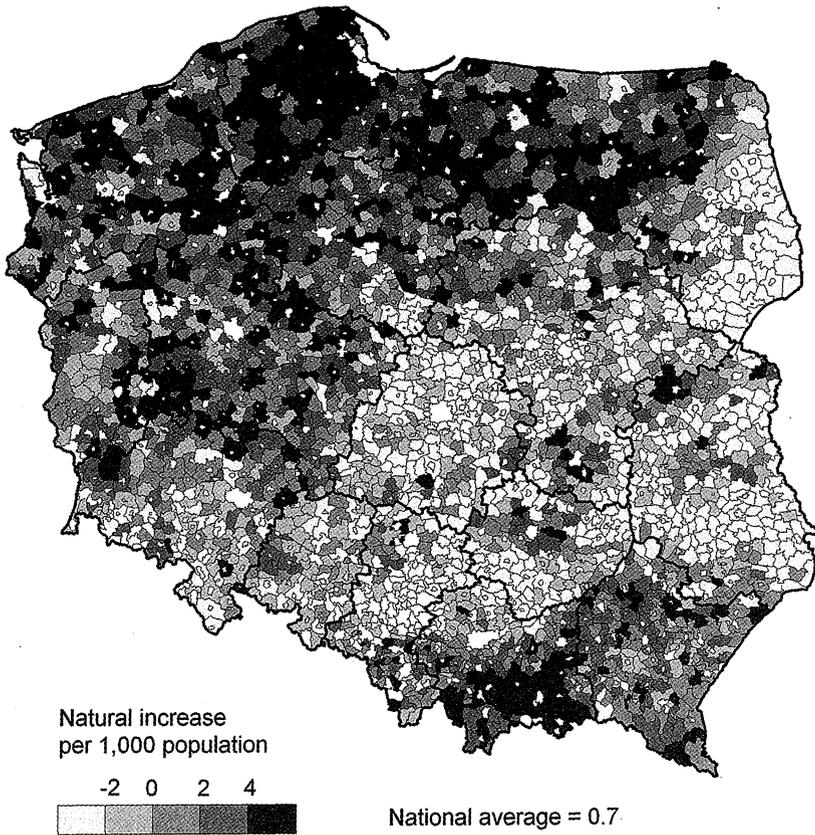


Fig. 7. Natural increase in rural areas, 2002

Source: own compilation based on Central Statistical Office data.

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The highest net in-migration rates in 2002 were recorded in the rural areas of Pomorskie and Dolnośląskie (2.6‰), slightly lower in Wielkopolskie, Śląskie and Małopolskie (2.3‰ each), and Mazowieckie (2.1‰). The voivodeships showing net out-migration included Podlaskie (-3.2‰), Warmińsko-Mazurskie (-3.1‰), Opolskie (-2.6‰), and Lubelskie (-1.1‰). A detailed analysis of the spatial distribution of migration (by commune) showed that in 2002 44% of those units experienced an inflow of the population, with especially high rates recorded around big towns and metropolitan centres (Fig. 8).

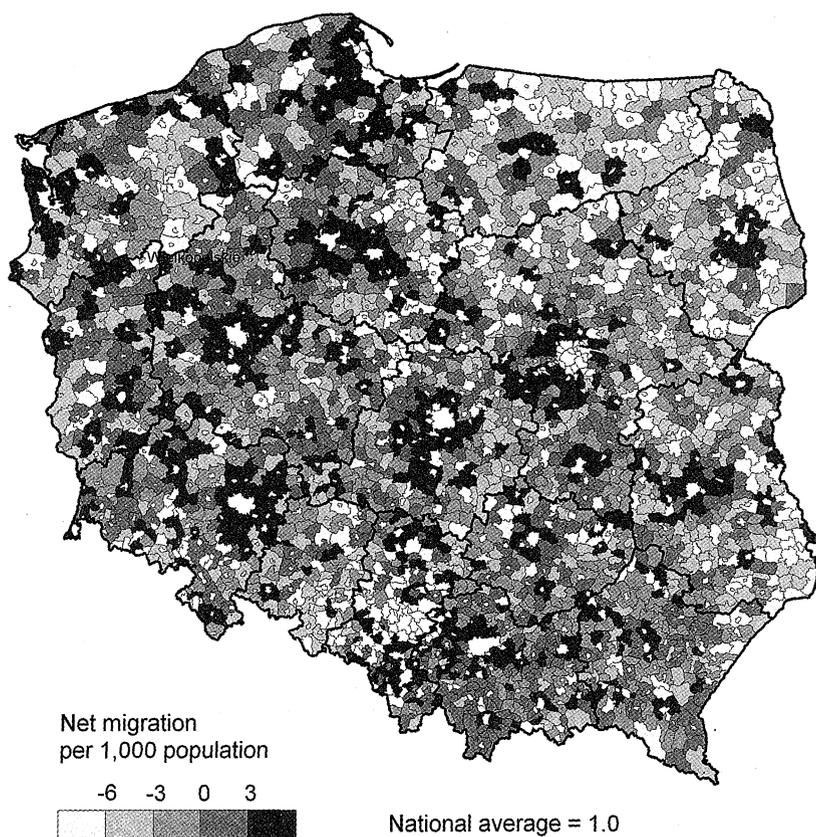


Fig. 8. Net internal and foreign migrations in rural areas, 2002  
*Source:* own compilation based on Central Statistical Office data.

The present population status of rural areas is a result of the demographic processes of the previous years. The outflow of the rural population was first noticeable in the 1960s, especially in central and eastern Poland whose poor accessibility by transport means and low levels of housing, local economy and services prompted people to migrate to towns, often located in other regions

(Upper Silesia, Warsaw). In the 1970s the outflow of the population from the country and smaller towns to major urban and industrial cities and regional centres accelerated steeply. Depopulation affected extensive rural areas, especially in the east, centre and the Sudety Mountains. The next decade brought about a slackening of the process of spatial concentration of the population and a stabilisation of the rural population at the national scale (cf. Korcelli et al. 1992). The systemic transformation of the 1990s was a period of declining intensity in migrations from the countryside to towns and a steady drop in the natural increase. Webb's method was employed to distinguish types of population change in the rural areas of all the voivodeships in 2002 (Fig. 9); their spatial distribution is presented in Fig. 10.

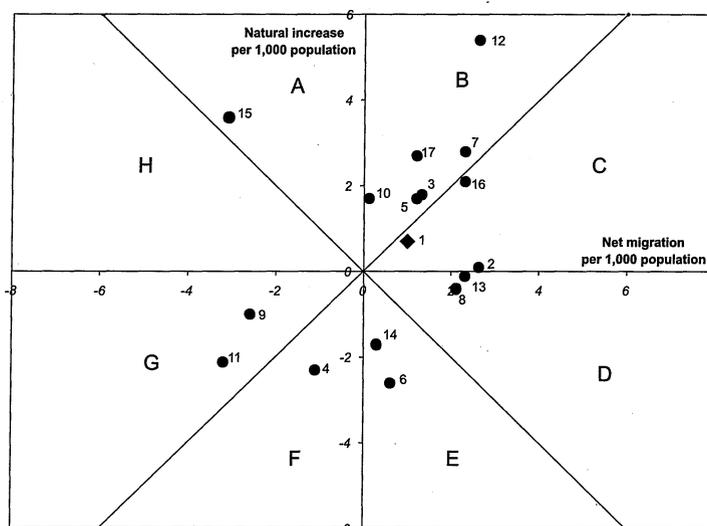


Fig. 9. Distribution of voivodeship types by natural increase and net migration in rural areas, 2002

1 – Rural areas, 2 – Dolnośląskie, 3 – Kujawsko-Pomorskie, 4 – Lubelskie, 5 – Lubuskie, 6 – Łódzkie, 7 – Małopolskie, 8 – Mazowieckie, 9 – Opolskie, 10 – Podkarpackie, 11 – Podlaskie, 12 – Pomorskie, 13 – Śląskie, 14 – Świętokrzyskie, 15 – Warmińsko-Mazurskie, 16 – Wielkopolskie, 17 – Zachodniopomorskie

Source: own compilation based on Central Statistical Office data.

In 2002, in most voivodeships an increase in the rural population could be observed (types A, B, C, and D). Type A was only recorded in Warmińsko-Mazurskie, where slight population growth occurred as a result of a high positive rate of natural increase exceeding a very low net out-migration. Type B was observed in those voivodeships whose positive rates of natural increase exceeded their net in-migration (Pomorskie, Zachodniopomorskie, Kujawsko-Pomorskie,

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Lubuskie and Podkarpackie). Type C was characteristic of Dolnośląskie, where a net in-migration much exceeded the slight (still positive) natural increase, and of Wielkopolskie, in which a net in-migration was slightly higher than an also positive rate of natural increase. Type D was observed in Mazowieckie and Śląskie Voivodeships, in which population growth was due to a fairly high net in-migration greatly exceeding a slight natural decrease.

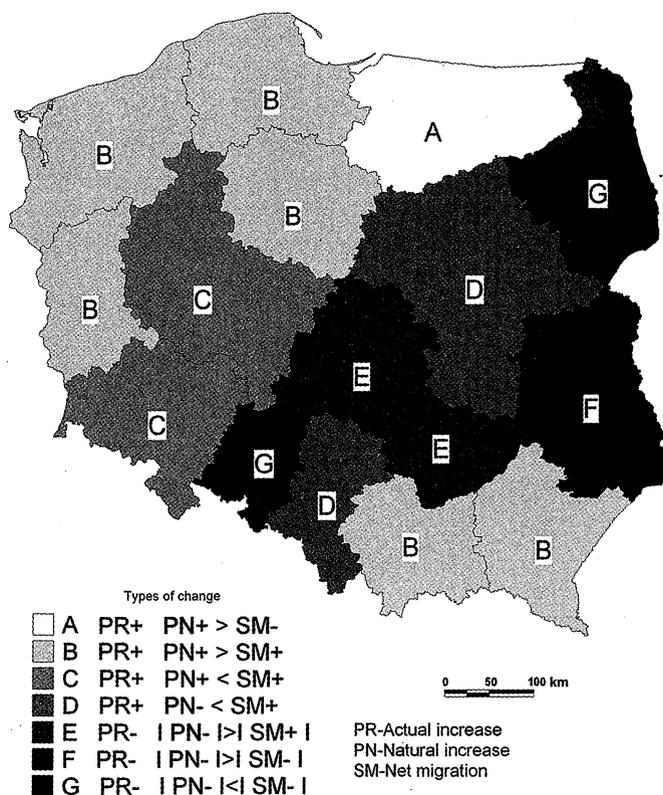


Fig. 10. Types of change in population figures in rural areas, 2002  
Source: own compilation based on Central Statistical Office data.

The other regions registered population losses (types E, F and G). Type E was characteristic of the voivodeships Łódzkie and Świętokrzyskie with a low net in-migration and a substantial natural decrease. Type F was found in Lubelskie voivodeship, where the population loss was largely due to its natural decrease rather than the slight net out-migration. Type G was observed in Podlaskie and Opolskie (with the highest net losses of the rural population in Poland), where a high net out-migration was accompanied by a somewhat lower natural decrease. Type H was found in none of the voivodeships.

In the years 2002-2004 there was a further decline in the natural increase and an increase in net in-migration in the rural areas of all the voivodeships, which brought about an increase in the actual increase figures (Table 1).

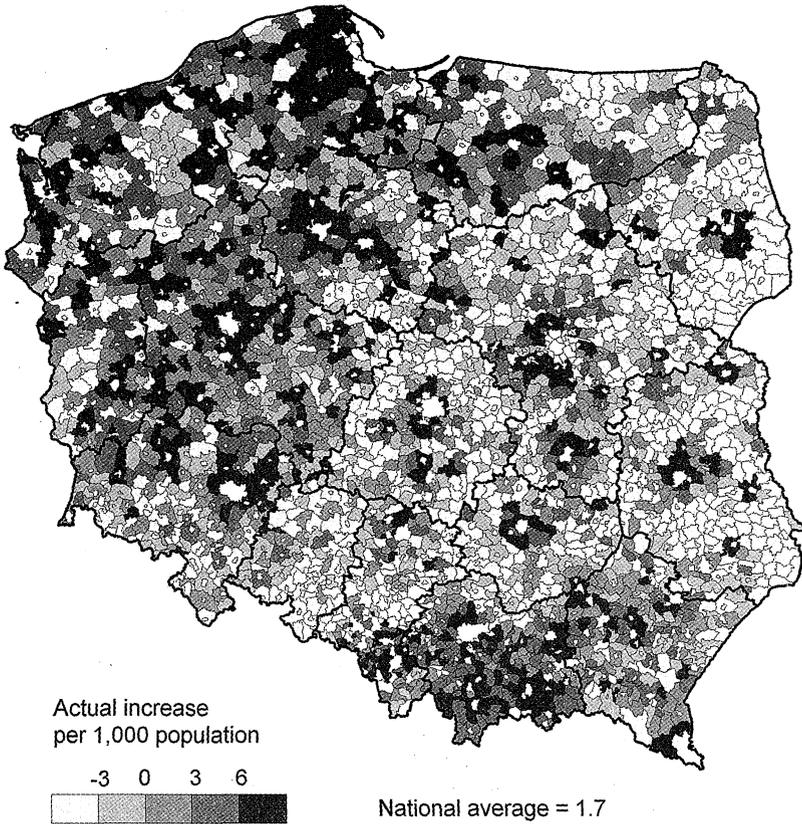


Fig. 11. Actual increase in rural areas, 2002

Source: own compilation based on Central Statistical Office data.

Much more accurate information about the spatial distribution of the mentioned changes in the population of rural areas is supplied by their analysis by commune (Fig. 11). One can notice that in 2002 population growth was recorded in 49% of communes, and was especially pronounced around the towns of western, north-western and southern Poland. Hence, it was a result of the previously recorded demographic tendencies in regions with a younger age structure of the population (where in most communes there was a positive rate of natural increase reinforced by a net in-migration). In the remaining parts of Poland (central, north-eastern and eastern), net population growth in the countryside was only observed in the suburban zones of large cities (e.g.,

Warsaw, Łódź, Radom, Kielce, Olsztyn, Białystok, Lublin). In those regions (among whose characteristics is a high proportion of people of post-working age) a majority of communes showed a clear decrease in the population. An especially conspicuous drop in the population occurred in the Opolskie voivodeship. The negative actual increase observed in 2002 made depopulation more acute in the rural areas of Podlaskie, Lubelskie and Opolskie, and fixed this trend in Łódzkie and Świętokrzyskie voivodeships. Depopulating rural areas are zones where many detrimental phenomena, both economic and social, tend to accumulate. They include the detrimental demographic tendencies typical of the entire rural population (a decline in the natural increase) as well as local patterns of the outflow of people from the countryside and the resultant structural change. Depopulation mainly affects areas with relatively the worst living and working conditions (including job opportunities), hence primarily peripheral ones that are economically and infrastructurally backward. The rapid outflow of the rural population leads to further degradation of those areas (cf. Pięcek, 2000).

## CONCLUSION

During the systemic transformation in Poland, there appeared demographic tendencies heretofore absent which differ significantly from those observed in the 1980s. Some of the changes have affected the population structure in rural areas.

Polish towns are characterised by a continuing downward tendency of the natural increase and a steadily declining net migration. Since 1998 both indices have been negative. The situation is different in rural areas. The rate of natural increase is on the decline, but it was still positive in 2002, while net migration has been on the increase ever since the mid-1970s. In 2000, for the first time in the postwar history, the figure was positive. As a result, the Polish countryside has finally recorded a net population gain. These developments are especially conspicuous in the suburban zones of big cities.

The sharp decline in the total fertility rate accompanied by an extension of life expectancy has accelerated the ageing of Polish society and contributed to a reduction in the growth rate of the rural population. A negative growth rate that aggravates depopulation was recorded in the eastern and central parts of Poland. Number one demographic problem of those regions today is depopulation. They are termed "rural problem areas".

In the 1990s the flow of the rural population to towns and inter-city migrations started to decline. At the same time, after 1995 a systematic outflow of people from towns to the countryside was recorded. Residents of big cities were especially eager to move to rural areas located nearby. This was usually

caused by better real-estate prices and a wish to escape from metropolitan life. It seems that over the next few years this process may advance and the rural population figure is going to climb. It may be enhanced by the ever improving level of infrastructure in the countryside. The inflow of the urban population is going to alter the social structure of country residents (there will be an increase in the number of the non-farming population) and the rural culture.

The analysis has shown that the differences in the demographic situation of rural areas in Poland recorded in 2002 were still the result of processes that had occurred much earlier. Massive displacements resulting from the territorial changes of 1945 brought about significant differences in the demographic structure between the old regions and the northern and western regions (called the Regained Territories after the war). These areas colonised by the Polish population after the Second World War displayed, and still display, higher rates of births, natural increase and population growth, lower death rates, a higher proportion of the younger generations in the age structure, and greater spatial mobility of the population (cf. Korcelli et al., 1992).

The causes of the sharp changes in demographic processes are many and diverse. It should be emphasised that they intensified in the 1990s as a result of the socio-economic transformation in Poland. Among the most important factors determining population processes are a change in the model of the family and patterns of reproductive behaviour. In the opinion of many demographers (cf. Kotowska, 1999; Holzer, 2001 and others), the population problems experienced by Poland today, both in towns and in the country, are the result of the second demographic transition (a concept developed by D. Van de Kaa and R. Lesthaeghe in the late 1980s and early '90s). It manifests itself in a drop in the total fertility rate to a level not securing simple replacement, a change in the fertility pattern consisting in an older age at first childbirth, an increase in the number of births out of wedlock, an older age at first marriage, a lower stability of marriage, a decline in mortality, and an extension of life expectancy. The advanced demographic transformation that the European countries have been going through for some time has now come to Poland as well (Strzelecki, 2001; Holzer, 2001). However, in those countries the changes have taken a long time, whereas in Poland the transformation has been very rapid. Significant changes were already clearly visible in 14 years' time.

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