

Poland's agriculture faces integration into the European Union¹

Poland had set herself an ambitious goal: to become a member of the European Union in 2003. Even if today this date has proved to be far too optimistic, to achieve the goal, considerable advancement of reforms will be necessary to bring our country closer to European standards. This refers particularly to agriculture, which still differs from its European counterpart both in terms of its agrarian structure as well as its productivity and effectiveness. We cannot be sure, however, whether the existing differences can be diminished in such a short time, as not only agriculture but also the agricultural market and the food industry must be reformed.

Therefore, Brussels suggested that Polish agriculture should not be submitted to the Common Agricultural Policy on Poland's EU membership, but it should be given a longer transition period necessary for essential reforms. These suggestions seem to be confirmed by a recently published report of the European Commission, which states that Poland shows considerable delay in adjusting her agriculture to European requirements, whereas the reforms already executed are temporary and do not take sufficiently into consideration the needs of the future integration (Radzimińska 1999). Similar opinions about the preparation of Polish agriculture towards the integration can be found in some works of agricultural economists published in Poland which point out the fact that not only in Poland, but also in other countries in Central Europe agricultural reforms are introduced very slowly (Duczowska-Małysz 1998).

The Polish government, however, thinks that leaving the agriculture outside the European Union would exercise a disadvantageous influence over a significant part of Poland's economy. This view is justified by the fact that 3,053,000 households with 30% of the Polish population use land for agricultural purposes. It is because 78% of the population living on the countryside. The standards of living in this part of the population are relatively worse than the conditions of other groups; at the same time, farmers have to bear high costs connected with Polish political and economical reforms. It should also be remembered that the embodiment of Polish agriculture in the Common Agricultural Policy would enable it to stabilise the economic conditions of production and to increase the earnings of farmers considerably.

1. The most important differences between Poland and the EU and the subsequent problems of adaptation

1.1 Large number of small-scale agricultural enterprises farm

According to the criteria currently utilised in Poland, there are more than 2 million farms with more than 1 hectare each (i.e. 1/5 of all the farms in the European Union) and about 1 million farms with an area smaller than 1 hectare of UAA. The average size of farms is small and is about 7 hectares. The majority of existing farms have difficulty in adapting themselves to the conditions of the market economy. About 7% of all the farms do not cultivate the land, a

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further 56% provide only or mainly for their own needs. Economic criteria are now met in Poland by no more than 1.2 –1.3 million units, which can be considered as farms. An even smaller number of them can be covered by the Common Agricultural Policy of the EU because of formal regulations (providing book-keeping for instance).

Since 1989, the number of farms has been changing more slowly than under the communists' rule (Szemberg 1997). There have been, however, significant changes in their size structure. The number of the smallest farms (under 2 hectares) and of the large ones (above 15 hectares – see table 1) have increased significantly. Due to this fact, large farms now account for more than 1/3 of the farmland, whereas in 1988 the figure was only 1/5. These changes affect mostly medium-sized farms (2-5 hectares, 5-7 hectares, 7-10 hectares), which are decreasing their area. They are being divided into smaller farms and sell part of their land to owners of large units. These favourable tendencies appear mainly in those regions of the country, where the presence of small farms is not a problem (see fig. 1). They are not, however, observed in the south of Poland where, since the middle of the 19th century, small 2-4-hectare farms have been dominant. At present, these farms are not interested in changes.

Tab. 1: Size of agricultural enterprises in Poland, 1988/1996

	Year	Number	Percentage [%] falling to enterprises of				
			1<2 ha	2<5 ha	5<10 ha	10<15 ha	≥15 ha
Agricultural enterprises	1988	2,167,573	18.7	34.8	29.3	11.2	6.0
	1996	2,041,380	22.6	32.8	25.5	10.6	8.5
Agricultural area ['000 ha]	1988	13,537	4.5	19.1	34.4	22.1	19.9
	1996	14,260	4.6	15.4	26.0	18.5	35.5
Mean size of enterprise [ha]	1988	6.2	1.5	3.4	7.3	12.4	20.7
	1996	7.0	1.4	3.3	7.1	12.1	29.2

The existence of small farms in Poland is closely connected with a very large “dispersing of agricultural production”. Small farms can produce small amounts of goods which makes the organisation of the agricultural market (especially purchasing centres of agricultural products and their processing) difficult. In Poland, 80% of stock breeders have less than 5 cows and only 2% of them more than 20 cows. An average potato plantation has an area of 0.7 hectare.

1.2 Large employment in agriculture - hidden agricultural unemployment

In 1996, Polish agriculture employed about 4.6 million people, i.e. 26% of the whole working population. That meant nearly 26 people per 100 hectares of farmland. The number given constituted 2/5 of the entire working population in the agriculture of the European Union. This high employment rate is connected not only with the great number of small farms but also with a low level of development of agricultural services. The problem of employment also has deep historical reasons, dating back to the 19th century. Unfortunately, the reforms that are taking place at present do not favour any changes and result even in the growth of

employment in agriculture. Since 1988, it has increased by 10%. New jobs for village dwellers, who were at that time made redundant from factories, have not been created in sufficient numbers. Records show that in 1996, there were 605,000 people unemployed and living on farms (about 400,000) and on small farms up to 1 hectare (about 207,000). They had recently been made redundant from factories, mostly located in towns. Unfortunately, in the next 10 years, the number of people capable of work is going to increase by 10 million.

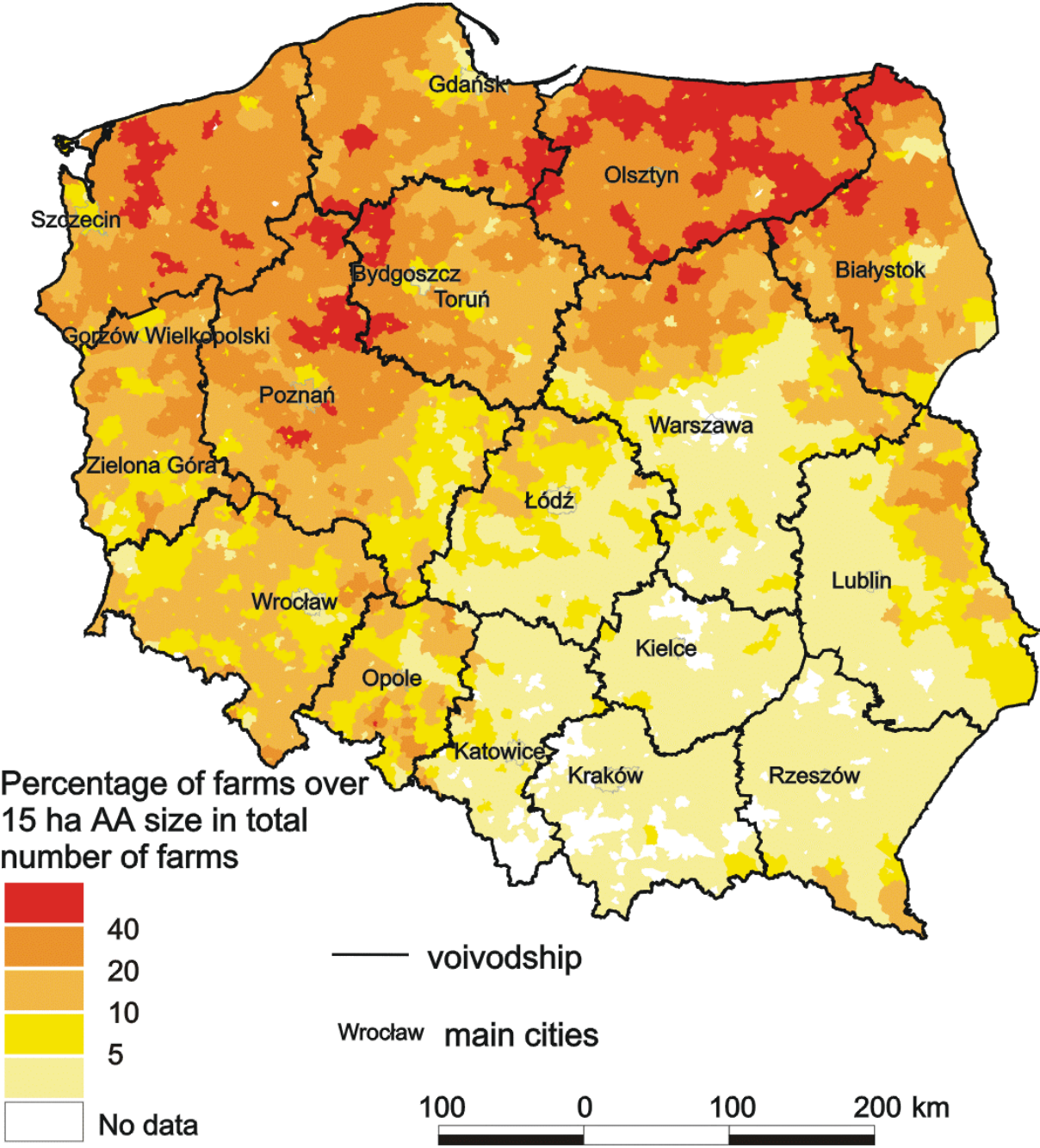


Fig. 1: Farms over 15ha in 1996 (source: Radosław Uliszak after Powszechny Spis Rolny 1996)

Apart from the officially registered unemployment, there is also the so-called hidden unemployment in Polish agriculture. This refers to people, who are employed on farms,

because there is no other work for them. The number of those people is estimated at about 600-700 thousand people.

Many difficult problems “on the way to the Union” result from the low educational level of the people living on farms (Frenkel 1998; Kłodziński, Wilkin 1998). Therefore, they are much less prepared to participate in economic and social life than other groups of people living in the country, and they have more difficulties in finding new jobs, when they are made redundant. In 1996, more than 48% of the farm dwellers had only primary level education (This figure included 8% of the population with an unfinished primary level education). Simultaneously, only 2.1% of the population had higher, and 20.7% secondary level education (see fig. 2).

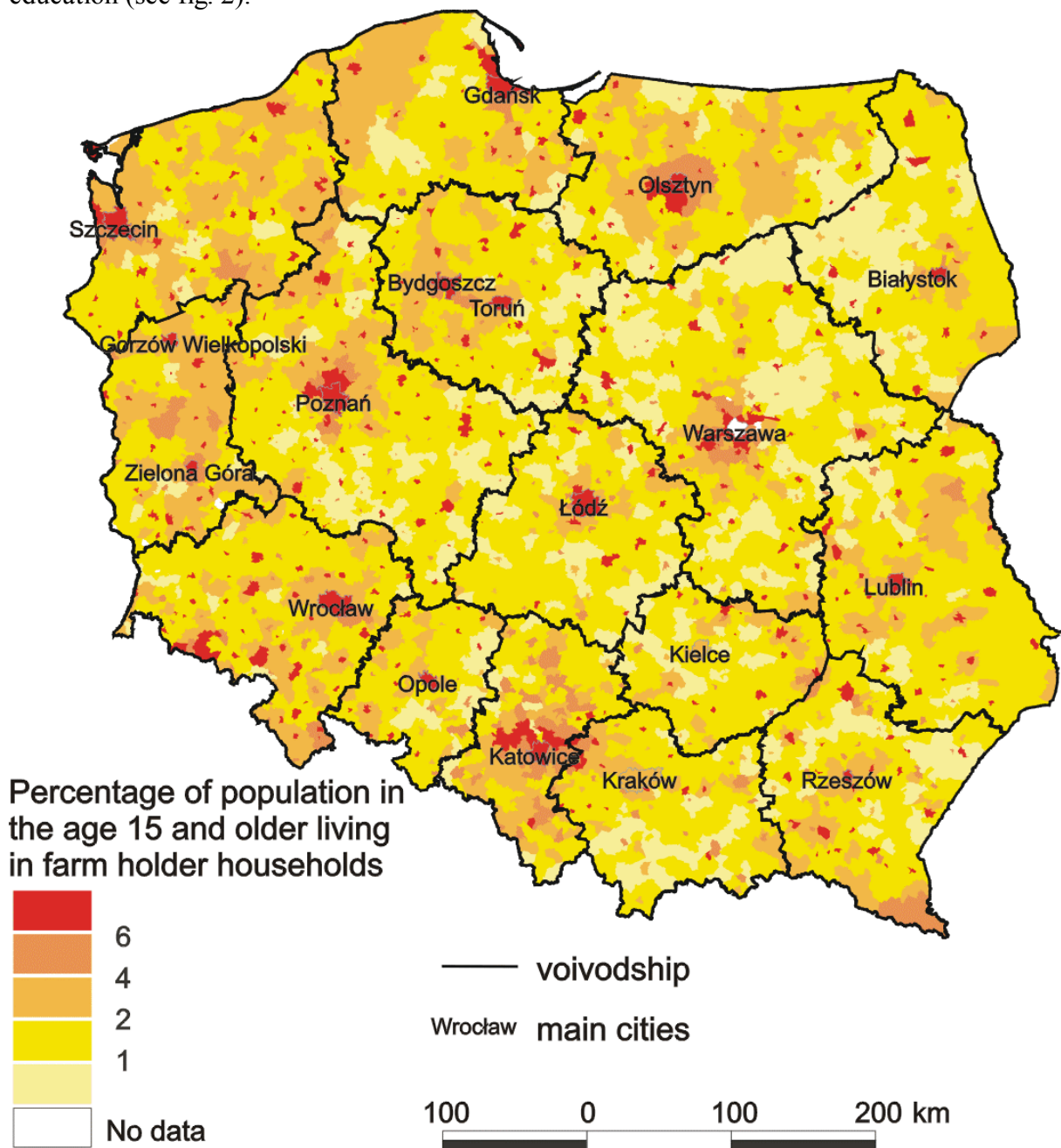


Fig. 2: Agricultural population with higher education living in farm holder households in 1996 (source: Radosław Uliszak after Powszechny Spis Rolny 1996)

1.3 Levels of Technology in agriculture

Mechanisation of agriculture in Poland means mainly the possession of tractors and agricultural machinery. Such mechanisation is expensive and little effective. In 1997, in the whole agricultural sector, there were 1,310 million tractors (75,000 less than in 1990) and 558,000 horses (383,000 less than in 1990). One tractor per 7.4 hectares of farmland is the Polish average which is similar to that of the European Union. The tractors are, however, old (the average age is 13.5 years) and they were bought mainly before 1990. Nearly 1/4 of them are over 26 years old. Simultaneously, as many as 36% of the farms are not equipped with any draught animals, and more than 2/3 of them do not have any more expensive and effective

Tab. 2: Agricultural input at retail prices in relation to agricultural products at selling prices, 1990 and 1998

	Year	Wheat [100 kg]	Pork [kg]	Milk [l]
Tractor „Ursus“	1990	363	3693	46712
	1998	592	8040	45472
Superphosphat granules (100 kg)	1990	0.62	6.3	79,5
	1998	0.84	11.5	64,8
Seed (wheat) (100 kg)	1990	1.50	15.6	197
	1998	1.70	22.6	128
Hard coal (1 t)	1990	3.30	33.8	427
	1998	7.60	104.0	586

Rocznik Statystyczny 1999. GUS, Warszawa

agricultural machines. Only 16-17% of all the farms in Poland can boast of good or very good levels of mechanisation. These farms are usually large, they also acquire high profits from agriculture and continue buying new agricultural equipment. On the other hand, the majority of Polish farmers have no means to buy machines because their income is low and prices of farm products, compared with the prices of the machines, are less favourable than before 1989 (compare table 2).

In order to reduce the costs of agricultural production connected with the large number of tractors used in Polish agriculture and to improve mechanisation in small and medium farms, methods of using the machinery collectively, similar to those already existing in the EU, should be introduced. So far, throughout the country, only 100 such groups have been organised, and their activity has received the assistance of the Polish government.

1.4 Low productivity and effectiveness of agriculture

In 1997, agricultural produce obtained from one hectare in Poland amounted to 944.7 ECU, i.e. less than 54% of the European Union's average. The differences result from lower corn and other plant crops and lower productivity of the livestock. At present, the yields per hectare are as follows: 28 quintal of cereals and about 170 quintal of potatoes and may vary due to weather conditions. Generally, the production of corn, potatoes, rape and sugarbeet is sufficient for domestic needs. When there is a high crop, the surplus can be exported (especially rape and sugar). In the case of poor crops, Poland has to import large amounts of cereals (even more than 2 Mio. tons).

Cattle-breeding in Poland is characterised by low productivity. One cow gives nearly 3,400 l of milk (an increase of 300 l on the 1990 figure). Still, it is 40-50% less than in Western European countries and 30% less than in Spain. Poland is self-sufficient in terms of meat production; in the case of some products there is even an over-production (e.g. beef).

Tab. 3: Production, costs and agricultural income in Poland and the EU (€ per enterprise)

	Poland^{a)}	EU mean (15 countries)^{b)}
Mean size of enterprise [ha]	8.7	32.1
Labour force ^{c)} per enterprise	1.36	1.53
Production per agricultural enterprise (€)	8,219	56,831
- Crop production	4,430	25,772
- Stock farming	3,787	28,772
Agricultural income per enterprise [€]	2,506	17,414
Agricultural income [€] per enterprise, without subsidies	2,479	9,018
Agricultural income [€] per hectare agricultural area	288	542
Agricultural income [€] per hectare agricultural area, without subsidies	285	281
Agricultural income [€] per person employed	1,842	11,382
Agricultural income [€] per person employed, without subsidies	1,823	5,884

a) 1997; b) 1995; c) fulltime

Agricultural Situation and Prospects in the Central European Countries, Poland, 1998, European Commission, DGVI

Vital differences exist between the farmers' incomes in Poland and the European Union. Their source, however, is not simply the productivity of agriculture itself, but, also the, subsidies paid to the EU farmers. Agricultural income without subsidies is similar both in Poland and in the EU and amounts to about 280 ECU per hectare. Due to the use of subsidies in the EU and the very large number of people employed in agriculture in Poland, the income per person working in agriculture is 6 times lower than in the EU (see table 3).

1.5 Large spatial diversification of and significant regional differences in agriculture

Ten agricultural regions are usually recognised in Poland on the basis of natural, socio - economic and historical criteria. These regions differ basically in most agricultural features, namely farm size, level of mechanisation, capacity and effectiveness, not to mention connections with the agricultural market. Agriculture in such regions as Wielkopolska, Kujawy, Pomorze Zachodnie and part of Nizina Śląska is already quite similar to agriculture in the European Union (see fig. 3). The farms here are relatively large (fig. 1), are well-equipped with machines, they are generally highly efficient and the majority of their production is sold on the market. The agriculture of the southern and south-eastern part of the country is in absolute contrast. Here small 3-4 hectare farms predominate and their numbers have not changed much during the last decade. The main reasons are the high population density and the lack of jobs outside agriculture. The farms in the region produce mainly for their own needs (45-65% of the total number of farms). For more than 30% of the farms, pensions and social allowances form a very important source of income, (see fig. 4).

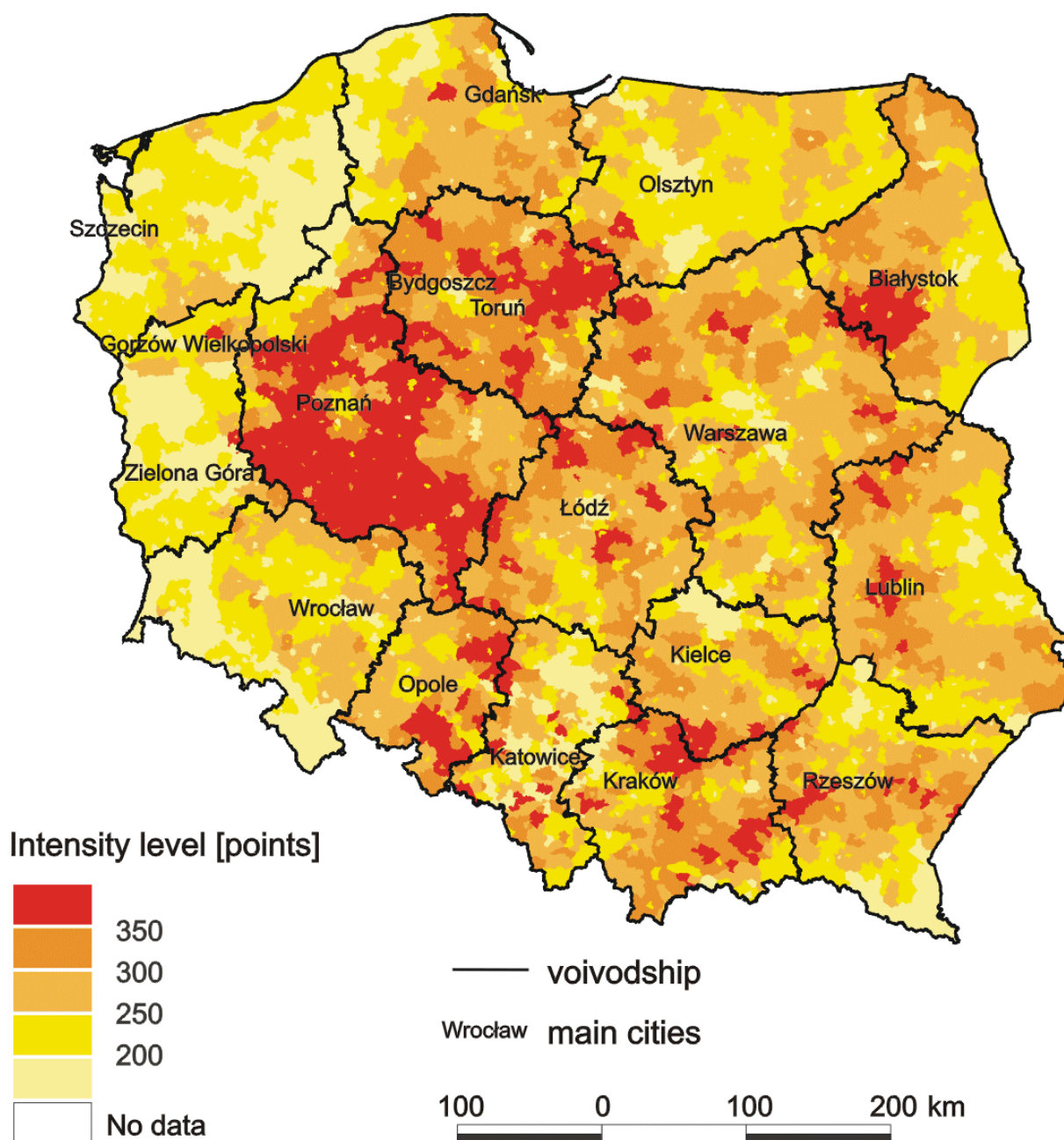


Fig. 3: Intensity level of Polish agriculture in 1996 (source: Radosław Uliszak after *Powszechny Spis Rolny 1996*)

Throughout the last years, the agriculture of this part of the country has not shown any positive changes. About 28% of the region's farms do not use any fertilisers or new grain varieties. The majority do not buy agricultural machines or make investments. Despite a large number of small farms and the generally difficult economic situation, a lot of uncultivated land can be found here.

2 Problems connected with agricultural services

Before 1989, Poland had set up a system of commercial, technical and financial agricultural services based on state and co-operative institutions, which operated in the majority of the Polish towns and communes. Farmers had virtually no problems in selling their products.

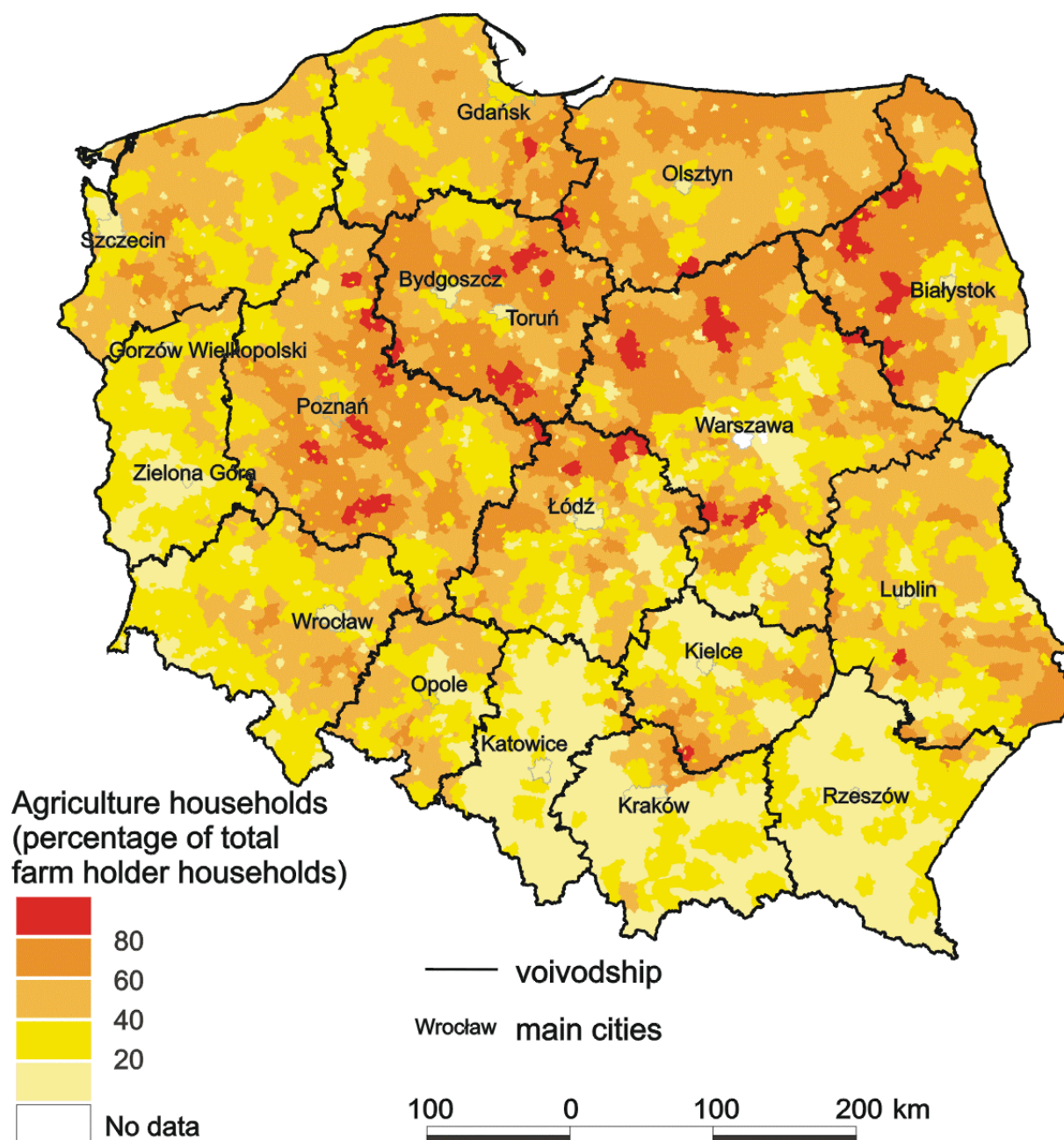


Fig. 4: Farm holder households with domination of agricultural income in 1996 (source: Radosław Uliszak after *Powszechny Spis Rolny 1996*)

They could also organise themselves into many unions (e.g. cattle breeders, tobacco planters) and contract to supply their products (especially sugar beet or tobacco). They also received help from the food-processing enterprises: e.g. dairies helped milk producers to buy good breeds of cows or milking machines. Banks were quite efficient then too, although their activities mostly focused on credits for farmers and keeping their savings. On the other hand, it was extremely difficult to buy tractors and building materials, since they were rationed.

The whole system of agricultural services was, however, strictly state-controlled and served not only economic, but also political purposes, the most important of which was the restriction of individual initiative. There is a justified opinion, saying that the system helped to petrify many negative characteristics of Polish agriculture. Therefore, immediately after the

beginning of the reforms, changes and a new organisation of agricultural services suited to the market economy had to be introduced. The withdrawal of the commercial state monopoly resulted at the beginning of the 1990's in the appearance of numerous firms purchasing agricultural products. Soon, individual businessmen controlled the trade in agricultural equipment, fertilisers and agricultural machinery. On the other hand, the majority of firms connected with agricultural services was unable to face the competition and stopped their activities. It turned out that only a part of the equipment belonging to the firms could be adapted to new market economy conditions.

Significant changes have also taken place in the food industry connected with its privatisation and modernisation. However, the activities that have been taking place are definitely not sufficient for an efficient agricultural service. The most serious problem is the organisation of a modern system of commodity exchanges, which exercise a great influence on agricultural production and the modernisation of virtually all branches of the food industry (especially dairy, meat and sugar industries). Also, the European Union is in favour of fast modernisation, because most Polish dairies and meat factories do not meet European standards.

3 Limitations and barriers to change in agriculture resulting from the historical experiences of Polish farmers

During the forty years since the second World War, Polish agriculture was exposed to different "experiments", with collectivisation as its final target. Therefore, the state agricultural policy favoured mostly co-operatives and state-owned farms and was not particularly friendly towards individual farmers. Also, any prerequisites for a technical, social and productive modernisation of individual farms were missing. Due to constantly growing difficulties in the food supply both in Poland and other communist countries, there were attempts to change the policies for the benefits of individual farmers. After World War II there were several changes in 1944-46, at the turn of the 1950's, in 1956, 1968, 1970 and 1988, but only at the end of the 1980's did individual farms become recognised as a permanent part of the Polish economy. Each change was accompanied by forecasts of the authorities promising thorough restructuring and modernisation of Polish agriculture. But none of the projects was consequently carried out. Initially, plans for major changes in agricultural production failed. They were concerned with an increase in effectiveness, a quality improvement of (especially animal) products and the improvement of hygiene standards. Consequently, after the borders had opened, it turned out that Polish agricultural products lacked competitiveness with their West European counterparts.

It must be clearly stated that, very often, those changes in the policy of communist authorities towards individual farmers impaired the confidence of the farmers in the state. Therefore, many of them still regard the present reforms as just another shift in agricultural policy and not as the beginning of a completely new period in the history of Polish agriculture. This attitude is additionally strengthened by the unfavourable economical situation of farms faced with low income and strong competition of agricultural products coming from the European Union.

Another experience of Polish farmers is a widespread aversion to all collective forms of production and the collective use of agricultural machines. Therefore, during the last 10

years of implementing the market system, attempts have failed to make Polish farmers organise co-operatives, which are presently common in the European Union.

4 Present results of Polish agricultural reforms connected with the introduction of a market economy and the implementation of agricultural adaptation programmes to the European Union

One of the arguments for Poland's participation in the European Union which should convince public opinion of the necessity for the adoption of the agricultural policy carried out by the Polish government is that, no matter whether Poland will become a EU member or not, agriculture must undergo very deep changes. Therefore, since 1994 our country has been implementing a programme, which unites the modernisation of agriculture with a simultaneous development of the whole agricultural economy. Its main task is to create several million new jobs in the countryside (in food industry, services and infrastructure, etc.) for people living there. By this means only, it will be possible to reduce the number of farms. The programme is supported by funds coming from the European Union, which are intended to help Poland to carry out necessary adaptation changes. Present results of the reforms differ according to region; they are more visible in regions of multi-functional economy, which have already shown a higher level of economical development than in the areas dominated by agriculture, located far away from larger centres such as Warszawa, Poznań or Kraków.

The most important achievements in the restructuring and modernisation of agriculture can be summarised as follows:

- 1) A significant development of village infrastructure can be noticed (water supply and sewage systems, sewage treatment plants, roads, telephones – see table 4). But still, there is an enormous shortage of these services: only 10% of all the communes have a sufficient infrastructure.
- 2) Several large commodity exchanges of agricultural products have been created (in Poznań, Olsztyn, Warszawa and Lublin). The exchange in Warszawa is regarded as one of the most modern ones in post-communist countries. The activities of these exchanges have already stimulated the establishing of about 100 groups of individual producers. It is estimated that before the integration into the EU there will be a sufficient number of such commodity exchanges in Poland.
- 3) The modernisation process of the food industry began especially with dairies, meat factories and fruit and vegetables processing plants. However, only a very small part of them is entitled to export their products to the EU. The modernised food industry influences the improvement of production of individual farms favourably. For example, since January 1st, 2000, sanitary regulations concerning milk purchased from its producers have been tightened on demand from dairies.
- 4) Several institutions have been established to regulate the agricultural reforms in Poland (especially Agencja Restrukturyzacji i Modernizacji Rolnictwa or Agencja Własności Rolnej Skarbu Państwa). They are entitled to administer funds coming both from the state budget and the European Union.
- 5) The awareness of the necessity for a balanced development of agriculture and rural areas grew significantly, taking into consideration the overall environmental protection.

Tab. 4: Technical infrastructure in the rural areas of Poland, 1990 and 1997

Kind of infrastructure	1990	1997	Change (1990=100)
Water pipelines [km]	56,551	136,692	241.7
Sewage systems [km]	3,074	8,484	276.0
Gas pipes [km]	16,220	46,214	284.9
Percentage [%] of dwellings with			
Tap water	64.7	79.4	122.7
Bathrooms	51.9	64.2	123.6
Natural gas connection	5.7	13.	242.1
Central heating	40.9	52.2	127.6
Percentage of village roads with improved surface	46.1	53.8	116.7
Telephone subscribers per 1000 inhabitants	26.8	83.6	313.7

During the agricultural reform process, it has turned out that the market led to a differentiation of farms according to the possibilities for their further development and connection with the agricultural market. Thus, the existing farms in Poland may be divided into the following groups:

- farms, which are developing (there are about 130,000 of them). They are highly effective and economically strong and deliver more than half of their production to the market. They are located mostly in regions with a strong and multi-functional economy such as Wielkopolska, Pomorze Gdańskie, Pomorze Szczecińskie, Kujawy and areas surrounding large cities (Warszawa, Poznań, Wrocław and Kraków).
- farms, which are stagnating (about 1,200,000 – 1,300,000). Some of them still have the chance to develop (thanks to the state help and their owners' initiative). They are located mainly in Central Poland and in the east and south of the country.
- farms, which are economically weak and are declining (over 350,000). At present, they are being supported by the state (mainly by pensions and social benefits) and are producing only on a subsistence level (see fig. 4). These farms are characteristic of south-eastern Poland, where are a huge number of small farms and farmers work also outside agriculture.

About 56% of the land belonging to individual farmers and nearly 2/3 of the labour force are to be found on farms with low productivity and limited potentials for development (Halamska 1997).

It can be assumed that Poland, entering the European Union, will have a strongly diversified agriculture. Only a section of Poland's farms will be able to compete with West European countries. On the other hand, the majority of them will still be supported by the state budget. The means available are large, they are not always used to reinforce the production, but to cover the social needs of the farmers. At present, the amount of money spent on pensions and benefits for the farms exceeds \$1.5 billion, which represents 73% of the total expenditures on Polish agriculture (Wojciechowska-Ratajczak 1999). Yet, this way of supporting agriculture does not induce any favourable changes, because it weakens the motivating functions of agricultural income.

5 Chances of Polish agriculture connected with the integration into the EU

For many Polish farmers the integration into the European Union will be a great challenge with results that cannot be predicted today. The farmers' experiences in contacts with the EU are rather negative. They are caused partially by the fact that the aid for Polish agriculture coming from Brussels was not distributed directly to the farms. Additionally, farmers' low incomes are often associated with cheap foodstuff imported from the EU to Poland. For some years, there has been a deficit in the food trade between Poland and the EU countries, which in 1997 amounted to 470 Mio. \$ (in 1996 – 570 Mio. \$), although Poland, on the base of previous agreements could expect many privileges in selling Polish agricultural products there. There are fears that after abolishing duties in mutual economical contacts, the deficit will be even higher as the competition will increase. Poland's agricultural production is similar in its structure to Western European countries. Therefore, EU experts have tried in recent years to restrict Polish exports (especially dairy products, meat, strawberries, raspberries, blackcurrants and cherries).

What changes can be expected after the integration of Polish agriculture into EU structures?

1. Firstly, reforms will be accelerated, not only in agriculture but also in the whole food economy, i.e. the food industry and institutions co-operating with the industry (trade, banks, scientific research, etc.). It will favour the development of agricultural regions, which are still characterised by low income and worse living conditions. People living there think that the reason for the difficult situation is the lack of a well-developed industry. The people doubt either that in these regions agriculture could generate positive changes. Meanwhile, the Polish government has announced a significant growth of expenditures on adapting agriculture to the European Union. The total cost of the adaptation is estimated up to 6 billion \$. The funds will be partially provided by the EU. Thanks to the EU, different economic and social projects have been implemented in rural areas for some years (mainly aid from PHARE or, recently – SAPARD – cf. Kosicka 1999).
2. Another effect of the integration into the EU will definitely be an increase of effectiveness, a decrease of production costs and the improvement of quality standards. Groups for machine-sharing and groups of producers will be set up faster. Presently, Polish production costs are to 40% dominated by mechanisation, because of the individual use of machines and tractors.
3. The free access of agricultural products to the European market will also be an advantage. If Polish farmers have competitive products (i.e. cheap and high-quality), they will be able to sell more of them in West European countries than before. Besides, this is the only way to increase the export of agricultural products, not only to EU countries. But there is a long a great challenge to force farmers to think about it as main target.
4. Polish agriculture can also achieve high competitiveness in producing ecological food, for which there is a great demand in Western Europe. Therefore, Polish specialists speak about the urgent need to adapt a part of Polish farms to this kind of production. The fact that in many parts of our country there are excellent conditions for organising a large-scale production of ecological food is also emphasised. During the last years, the use of chemical agents in agriculture has considerably dropped (fertilisers by 50%, pesticides 10 times). Also, the pollution of atmosphere has been greatly reduced: the emission of

sulphur dioxide has dropped by 43%, of carbon dioxide by 27%, of dusts by 33%. Many farmers have learnt to use natural methods of production. This concerns also livestock breeding: animals are fed with natural fodder (corn, grass, hay and potatoes).

5. It is difficult to say whether Polish farms will be covered by direct subsidies, which could largely improve their economical situation after the integration into the EU. Such subsidies could be given only to those farms, which will meet EU criteria. Therefore, only a proportion of the farmers (ca. 20%) may expect definite advantages from the integration. On the other hand, calculations made by economists show that Polish farmers may expect a profit increase resulting from selling milk, beef, sugar and corn. Their income from selling rape, poultry and eggs will be lower (Piskorz 1998).

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