

# MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

# AGRICULTURE AND FOOD ECONOMY IN POLAND

**WARSAW 2010** 

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AGRICULTURE AND FOOD ECONOMY IN POLAND
Collective work edited by: Teresa Jabłońska - Urbaniak
WARSAW, 2010

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#### **Dear Sirs and Madams!**

I would like to present you with another edition of the study 'Agriculture and Food Economy in Poland.' This publication illustrates the changes which are taking place in Polish agriculture, agri-food processing, fisheries and industry branches working for the food sector. The aim of the publication is to provide the interested parties with information regarding the scope and trends of economic processes taking place in the agri-food sector. It may also be a source of basic information about programmes (and results of programmes) supporting Polish agri-food sector and fisheries.



Since the second half of 2008, Polish economy has been suffering from the outcomes of the world recession which disrupted and hampered development processes. These turbulences have also affected the agri-food sector. The conditions for agriculture have significantly deteriorated. The stagnation in domestic demand and the declining demand for imports from our foreign trade partners have been a source of many problems. Nevertheless, the year 2009 closed with a positive turnover balance of the foreign food trade amounting to nearly EUR 2.3 billion, and the trade balance for the first half year of 2010 is nearly EUR 1.3 billion, which is 14% higher as compared to the first half year of 2009. We managed to achieve such a good result thanks to our joint efforts – due to the high quality of the agri-food products and the endeavours to reach new markets, including the lifting of barriers to entering the Eastern (Russian and Ukrainian) markets in 2008, as well as the effectiveness of promotional activities and programmes. Polish food is successfully earning recognition among customers – its greatest advantages are attractive price, high health quality and consumption values.

The years 2008 and 2009 were not easy for agriculture. In order to mitigate the negative effects of the crisis, we have prepared and implemented a stabilisation package that involves accelerating the release of funding for agriculture, modifying the Rural Development Programme 2007–2013 and speeding the implementation of its individual measures, introducing favourable changes in the provision of agricultural credits and broadening the use of intervention mechanisms. Information on these issues can be found in the present publication.

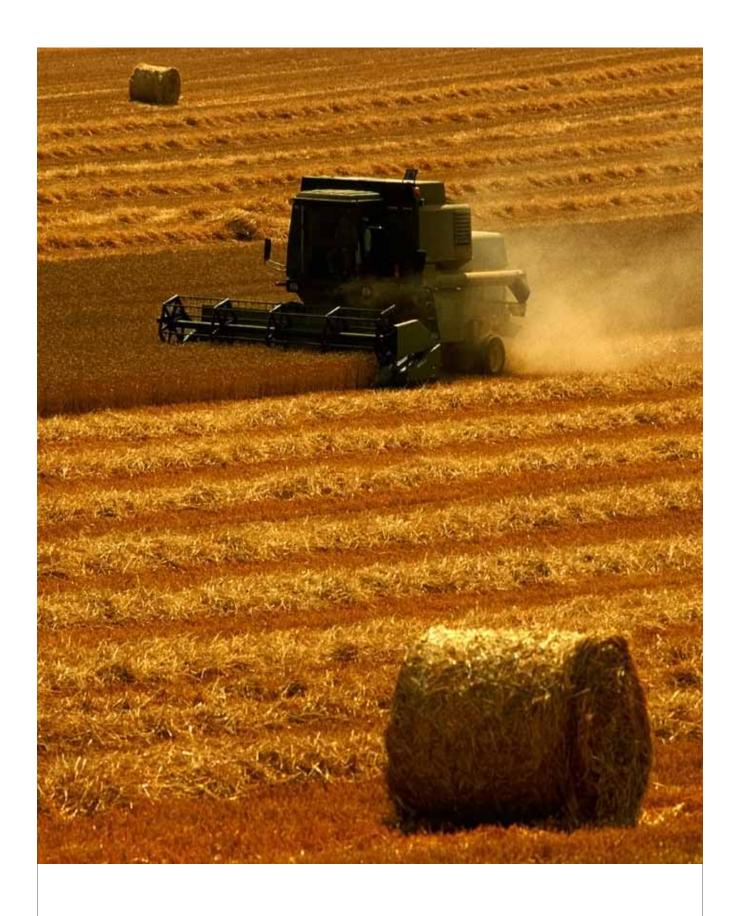
A separate part of the publication covers information on the main elements of rural areas, agriculture and fisheries policy, co-financed by the European Union and national budget. We can fully and appropriately use the means from the EU. The full use of the means from all programmes requires intense activity and resource-fulness on the part of beneficiaries, but also involvement of administration, local governments, professional organisations, advisory services and all agricultural units working for the agri-food sector and fisheries in the preparation of projects and applications as well as their realisation.

Poland is actively engaged in the debate on the shape of the future Common Agricultural Policy. Owing to the meetings and consultations held with regard to this matter from the very beginning of the debate, it is increasingly recognised that there is a necessity to ensure a level playing field and to maintain the current level of financing for agriculture. What matters in this respect is the voice of the European society, which has spoken clearly in favour of preserving the Common Agricultural Policy. In half a year, during our Presidency in the European Union, the first decisions will be made concerning the future form of the European agricultural policy. The subjects to be discussed should include the response to the new challenges as regards the mechanisms for combating speculative capital on agricultural markets, or the mitigation of the impact exerted by the disadvantageous climate change.

Since our accession to the EU, Polish food sector and fisheries have undergone a number of positive changes – mainly due to the increased inflow of means, but also due to farmers, fishers and processors taking the chances created by the opening to the world and by the free movement of goods and services.

I hope you will find it interesting to read.

Marek Sawicki



# GENERAL INFORMATION ABOUT POLAND

Poland is a country situated in the central part of Europe, with a territory of 312.7 thousand km<sup>2</sup> (7<sup>th</sup> in the EU-27 and 68<sup>th</sup> in the world) and a population of 38.1 million (6<sup>th</sup> in the EU and 33<sup>rd</sup> in the world).

Since 1 May 2004, Poland has been a member of the European Union. In terms of total population, Poland ranks 6<sup>th</sup> among the 27 Member States, and in terms of agricultural population, it occupies the 1<sup>st</sup> position. As regards the number of agricultural holdings, Poland is in the 2<sup>nd</sup> place (after Romania) The number of persons employed in agriculture, hunting and forestry and in fisheries is 2.5 times higher than the percentage share of persons employed in these sectors in the EU-27 (14.5% and 5.6%, respectively). Poland covers 7.1% of the total surface area of the EU and borders seven countries – four EU Member States (Germany, Czech Republic, Slovakia and Lithuania) and three non-EU states (Russia, Belarus and Ukraine).

The country is characterised by a large variety of natural and environmental conditions. Special protection is provided to national parks with the surface area of 314.5 thousand ha, 1,441 nature reserves with the surface area of over 173 thousand ha, landscape parks with the surface area of nearly 2,602 thousand ha and 36 thousand monuments of nature. Forest land constitutes over 30% of the country's total land surface area. Many animal species are protected, the most important being bisons, chamois, bears, beavers, lynxes and wolves.

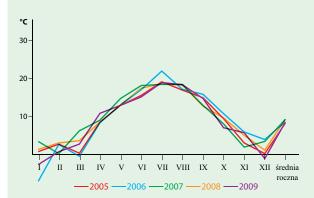
More than 75% of Poland's territory is situated lower than 200 m below sea level, and only less than 3% – higher than 500 m above sea level.

The climate of Poland is characterised by considerable variations in the length of seasons. Within the last three years, the average air temperature has varied between 8.6°C and 9.4°C, whereas precipitation has ranged from 609 mm to 717 mm. **Fig. 1.** 

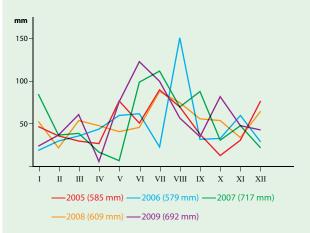
Precipitation is the main source of water resources, and it is characterised by considerable annual, monthly and regional variations. As a result, there are drought and slightly flooded areas, with floods occurring occasionally. **Fig. 2.** 

Poland is divided into 16 voivodeships, 314 poviats, 65 cities with the rights of poviats and 2,478 gminas. Auxiliary units in gminas are, *inter alia*, solectwa, the number of which is more than 40.3 thousand. **Fig. 3.** 

In 2009, Poland's population was 38.1 million – out of which 23.3 million lived in cities and 14.8 million – in rural areas. 24.6 million citizens were in



**Fig. 1.** Average monthly air temperature in Poland (in °C); Source: CSO (Central Statistical Office) – *Agriculture in 2009*. Warsaw 2010.



**Fig. 2.** Average total monthly precipitation in the years 2005–2009 (in mm); Source: CSO (Central Statistical Office) – *Agriculture in 2009*, Warsaw 2010.

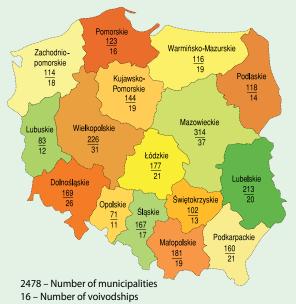


Fig. 3. Territorial division units in Poland

the productive age, out of which 15.3 million lived in cities and 9.3 million – in rural areas. In comparison to 2000, the population shrank by approximately 90 thousand. The decline mostly concerned cities, whereas rural areas observed an increase in the number of inhabitants. As compared to 2008, there was a rise in the number of live births (by 0.7%). The rate of live births per 1,000 inhabitants did not change as compared to the preceding year and was 10.9, as contrasted with 10.2 in 2007. An increase concerned the number – by 1.5%, and the percentage – by 1.4%, of deaths per 1,000 inhabitants.

The population projection prepared by the CSO assumes that in the period until 2035 rural areas will exhibit a positive, yet decreasing, balance of internal migrations. The population outflow from the cities will be halted primarily through the creation of new jobs in urban areas. It is also expected that a part of the temporary inhabitants of cities will decide on permanent residence. According to the projection by the CSO, until 2035, the population in rural areas will decrease (by 0.5%) due to a falling birth rate accompanied by a positive balance of internal migrations.

# Selected information on Poland's economic standing in 2009

In 2009, the economic situation of Poland was determined by the processes occurring in the world economy. In consequence of the negative crisis-related phenomena in the world economy, Poland's economy, after four years of rapid growth, has seen growth tendencies weaken since the second half of 2008. However, the negative impact of the world economic downturn on Polish economy was less dramatic than in the majority of the EU Member States. While in 2009 GDP fell by 0.8% globally and by 4% in the EU, Poland was the only Member State to report economic growth (by 1.7%). The basic factor contributing to this growth was consumption demand, although individual consumption rose only by 2.3% in comparison to the 5.9%-growth of 2008. The reason behind the fall in domestic demand was the reduction of household income resulting mainly from the perturbations within the labour market. The consumption was also affected by the diminishing supply of commercial credits attributable to the tightening of criteria for extending credits of this type by commercial banks. Another cause was the increased caution of the population when taking on credit liabilities, which was due to the uncertainty as regards future income. A worrying aspect of the economic processes taking place in 2009 was represented by the slowdown of investment processes, which might weaken or undermine the stability of the expected economic growth. The majority of enterprises have revised their development programmes for the nearest period and postponed the decisions to launch new investments. As a result, the gross input on fixed assets decreased by 0.3% as compared to 2008, and the rate of investment fell from 22.1% to 21% over a year. The effects of the world economic crisis were felt the worst by the industry, where production in 2009 was by 3.2% lower than the year before, and by the construction sector, where the growth rate fell from 10.9% in 2008 to 3.7% in 2009. Agriculture suffered less severely from the impact of the crisis – the growth rate of global agricultural production was similar to the preceding year.

In 2009, foreign trade in agri-food products once again exhibited a positive turnover balance – EUR 2.3 billion. Ever since the accession, foreign trade in agri-food products has been gaining importance in Poland's balance of trade and payments. The surplus produced in foreign food trade ameliorates Poland's negative turnover balance of the entire foreign trade. The share of the agri-food products export in the total export increased in 2009 up to 11.7% in relation to 10.1% in the preceding year, and the share of import – from 7.2% to 8.6%.

According to the preliminary estimates, gross domestic product (GDP) in 2009 was higher in real terms by 1.7% than the year before, yet remarkably lower than in the earlier years. Despite the perceptible economic slowdown, Poland, as the only EU Member State, recorded a GDP growth, which was accompanied by a rise in the purchasing power of remunerations by 1.1% and an increase in retirement and pension benefits, the purchasing power of which went up by 4% in 2009. The average annual inflation rate in 2009 was 3.5% in comparison to 4.2% a year before. The factors causing the inflation increase of 2009 mainly included the rising prices of raw materials and fuels on world markets, decisions to elevate the regulated prices and a strong depreciation of zloty over the second half of 2009. The inflation rate was also powerfully influenced by the 4.1%-increase in food prices. A decrease in the economic growth dynamics had a negative impact on the labour market. In 2009, the number of unemployed persons rose by 420 thousand, and the unemployment rate in the relation December 2008 – December 2009 edged up by 2.4%.

#### **General profile**

A characteristic feature of Polish agriculture is considerable fragmentation - the average surface area of agricultural land per agricultural holding is gradually expanding and in 2009 amounted to 8.0 ha of agricultural land (in 2008 - 7.8 ha). Over a half of agricultural holdings produce solely or mainly for their own use, reducing the expenditure on food and the costs of maintaining the family. Such agricultural holdings of a relatively small area employ traditional production methods, consisting in limited use of mineral fertilisers and chemical plant protection products, as well as of industrial feed in feeding farm animals, especially cattle. Despite these phenomena and the prevalence of soils with low usefulness for agriculture, Poland is an important European and world producer of agricultural and horticultural products, as well as products of animal origin. Table 1.

Poland also holds an important position in the production of berries (strawberries, raspberries and currants) and field vegetables such as onion, cabbage and cauliflower.

The profile of production is determined by soil and climate conditions and regional traditions.

Potato and rye production as well as grasslands are concentrated in the central, eastern and northern parts of Poland. Orchards and berry plantations are located in Mazovia (the vicinity of Grójec), Lubelskie Voivodeship, the areas surrounding Sandomierz, Greater Poland and Łódzkie Voivodeship. Plants requiring better soil and climate conditions are cultivated chiefly in the south-eastern and western parts of the country as well as Żuławy and Warmia. In these areas, the production of intensive cereals, mainly wheat, sugar beets and rape predominates.

Cattle production is concentrated mostly in Podlaskie, Mazowieckie, Warmińsko-Mazurskie and Wielkopolskie Voivodeships, and pig production – in Wielkopolskie and Kujawsko-Pomorskie Voivodeships. The scale of sheep production is vast only in mountain areas (Małopolskie Voivodeship).

## Land resources and their utilisation structure

The area of agricultural land, amounting to 16.2 million ha, constitutes 51.6% of the total area of Poland, which equals 31.3 million ha. The year 2009 did not bring any significant changes in the total area or utilisation structure of agricultural land in agricultural holdings. In 2009, the private sector encompassed 15.6 million ha or 96.8% of agricultural land,



Production of selected	Shai	re	Rank		
agricultural products	in the world	in the EU	in the world	in the EU	
wheat	1,4	6,9	16	4	
rye	21,2	41,0	2	1	
potatoes	3,8	18,4	6	1	
sugar beets	5,1	11,0	6	3	
rape	4,2	11,6	6	3	
apples	1,6	9,9	13	4	
meat	1,3	7,9	14	5	
cow milk	2,1	8,2	10	4	
Stock - cattle	0,4	6,3	46	7	
Stock - pigs	2,0	11,2	7	3	

**Table 1.** Share and rank of Polish agriculture in the world and in the EU (27 Member States); Source: *Statistical Yearbook of Agriculture 2009*, data for 2007

48,5% 51,6%

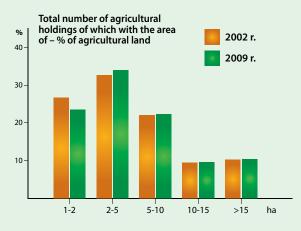
18,8% 38,7%

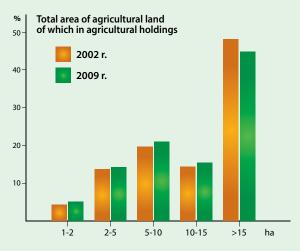
AGRICULTURAL Meadows Forests and forest land

Arable land Pastures Other land

Orchards Other agricultural land

**Fig. 4.** Land utilisation structure (in % of total area); Source: CSO – *Agriculture in 2009*, Warsaw 2010





**Fig. 5.** Structure of individual agricultural holdings by area of agricultural land in 2002 and 2008 (in %); Source: CSO – *Agriculture in 2009*, Warsaw 2010

out of which 14.5 million ha, that is, approximately 90% of agricultural land was utilised by individual agricultural holdings. The public sector held the remaining agricultural land (0.6 million ha).

The area of arable land in good agricultural and environmental condition in 2009 was 12.1 million ha, which accounted for 75.1% of the total area of agricultural land. In comparison to 2008, the area of land in good agricultural and environmental condition remained unaltered.

In the overall structure of agricultural land (16.2 million ha - 100%), arable land in good agricultural and environmental condition constituted 75.1% of this area, orchards, with the total area of 330.0 thousand ha - 2.0%, and permanent grasslands, with the total area of 3.2 million ha - 19.7%. **Fig. 4.** 

The quality of agricultural land in Poland is low, inferior to the EU average. A large share of poor and acidified soils reduces the usefulness of agricultural land for agriculture. In Poland, the percentage of light soils, characterised in the country by a high sand content, is twice as high as the EU average – it is 60.8% in Poland, and 31.8% in the EU.

The soil valuation indicator, which is a quotient of conversion hectares to physical agricultural land, is 0.82 in Poland. The unfavourable soil conditions, accompanied by worse climatic conditions, result in lower land productivity, as compared to the EU average. The total area of fallow land has been decreasing since Poland's accession to the EU. In 2009, it amounted to 498 thousand ha and was at least three times smaller than in 2004. In individual agricultural holdings, the area of fallow land was reduced by over 2.5 throughout this period. In 2009, fallow land in the private sector covered 433 thousand ha. This downward trend results from the application of direct payments per hectare used for agricultural purposes and from the increase in agricultural land prices.

In 2009, there were no significant changes in the structure of agricultural holdings as regards area groups and the area utilised by them. They were negligible and did not exceed the level of 0.5%. There was a total of 1765.9 thousand of individual agricultural holdings with surface area above 1 ha of agricultural land. As compared to 2002, the number of agricultural holdings dropped by 185.8 thousand, that is, by 9.6%. The reduction in the number of holdings in relation to 2002 was the most dynamic in the area group of 1-2 ha of agricultural land, which recorded a fall in the number of agricultural holdings by 103.5 thousand. In 2009, as compared to 2008, there was a decline in the number of agricultural holdings comprising of 1-10 ha (by 43.7 thousand) and an increase in the number of agricultural holdings with an area exceeding 10 ha (by 2.2 thousand). The average

area of an individual agricultural holding augmented in 2009 by 0.2 ha, the rise being a result of area expansion in agricultural holdings covering over 15 ha (by 0.8 ha). The greatest share in the overall structure of land used for agricultural purposes by individual agricultural holdings belongs to agricultural holdings comprising of more than 15 ha – 48.4% (an increase by 1.4%, as compared to 2008). **Fig. 5.** 

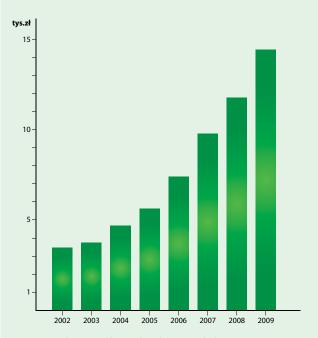
Since the EU integration, the demand for agricultural land has been rising, which has led to an increase in land prices. The upward trend in the number of transactions in land marketing differs markedly across regions and is conditioned mainly by: supply, different agrarian structure, economic power of agricultural holdings and diversified reasons for purchasing land. The lowest turnover is recorded in the southern and central regions of Poland, where the agricultural holding structure is the most fragmented and the practice of passing land onto maturing children predominates. **Table 2.** 

The strong dynamics of increase in average prices of agricultural land continued also in 2009 as regards both private trade and trade in land released by the Agricultural Property Agency (APA). The price rise was, however, slightly slower than in the preceding year. The average price of land from the Agricultural Property Stock of the State Treasury was PLN 14.932 per 1 ha and was 19% higher than the year before. The highest prices were paid for land in the area group below 1 ha - over PLN 19 thousand per ha, and above 100 ha - over PLN 15 thousand per ha. In 2009, the sales of land from the Agricultural Property Stock of the State Treasury increased by 30%, as compared to the preceding year. Over 102 thousand ha were sold to farmers by restricted and open tenders and to the existing leaseholders exercising their pre-emptive rights. The highest sales were achieved in the Warmińsko-Mazurskie (over 21 thousand ha), Zachodniopomorskie (over 18 thousand ha) and Lubuskie (over 11 thousand ha) Voivodeships. The lowest sales recorded in the Małopolskie (0.8 thousand ha), Łódzkie (1.5 thousand ha) and Ślaskie (1.7 thousand ha) Voivodeships. The Agricultural Property Stock of the State Treasury holds 2.2 million ha of land in the entire territory, including 1.7 million ha under lease. There are approximately 330 thousand ha still to be distributed.

According to the data from the CSO, in 2009 the average price of agricultural land in private trade oscillated around PLN 17 thousand per ha, which was over PLN 1.6 thousand (by 11%) higher than in the preceding year. **Fig. 6.** 

		Pric	ce per 1 ha	
	Year	in PLN	in dt - rye	in dt - pigs for slaughter
	2000	4786	115,3	13,3
Arable land	2005	8244	237,8	21,1
	2009	17042	374,3	37,9
	2000	6712	161,7	18,6
Fertile (wheat and beet)	2005	11001	317,3	28,1
5000	2009	20809	457,0	46,1
	2000	4920	118,5	13,7
Medium fertile (rye and potato)	2005	8603	248,1	22,0
and potato,	2009	17725	389,3	39,3
	2000	2725	65,6	7,6
Barren (sandy)	2005	5843	168,5	14,9
	2009	13561	297,9	30,1
	2000	4883	117,6	13,6
Meadows – fertile	2005	6144	177,2	15,7
	2009	13724	301,4	30,4
	2000	2753	66,3	7,6
Meadows – poor	2005	4003	115,5	10,2
	2009	10319	226,6	22,9

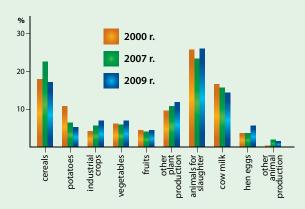
**Table 2.** Average prices of arable land and meadows in private trade; Source: CSO – *Agriculture in 2009*, Warsaw 2010



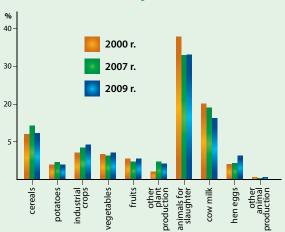
**Fig. 6.** Sale prices of agricultural property belonging to APA in PLN per ha in the years 2002–2009; Source: APA

Wyszcze-	2004	2005	2006	2007	2008	2009	2009		
gólnienie		rok poprzedni = 100							
Total global production	107,5	95,7	98,8	105,9	103,2	102,4	110,5		
- plant	116,7	88,1	94,8	108,9	108,3	103,0	115,2		
- animal	97,3	105,2	102,6	102,9	97,1	101,6	104,1		
Total commercial production	103,3	95,4	104,2	101,5	106,2	103,9	116,7		
- plant	112,2	87,0	103,7	99,3	111,3	107,9	127,3		
- animal	97,5	102,1	104,6	103,1	102,4	100,6	108,1		
Share of commercial production in global production	66,3	67,7	70,5	64,4	67,7	71,2	х		

**Table 3.** Dynamics of global and commercial agricultural production (in % – current prices); Source: CSO – *Agriculture in 2009*, Warsaw 2010.



**Fig. 7.** Structure of global agricultural production in 2000, 2007 and 2009 (in %); Source: CSO – *Agriculture in 2009*, Warsaw 2010.



**Fig. 8.** Structure of commercial agricultural production in 2000, 2007 and 2009 (in % - current prices); Source: CSO – *Agriculture in 2009*. Warsaw 2010.

# Factors shaping agricultural production and economy in 2009

In 2009, there was yet another deterioration in the market conditions for agricultural production. Nevertheless, the year 2009 was the third year in a row – since 2007 – when agriculture recorded a production growth. According to preliminary estimates, global agricultural production rose by 2.4%, as compared to 2008, which was an outcome of increased plant production (by 3.0%) and, although to a limited extent, increased animal production (by 1.6%). Agricultural production and economy in 2009 were determined primarily by:

- relatively low prices of most cereals resulting from abundant harvests in the preceding year and a domestic demand decrease in 2009 (decline in the use of cereals for feed due to a reduction of pig stocks). The decline in the demand for cereals was offset to a certain degree by an increase in the demand for feeds in the poultry and cattle sectors;
- ▶ rise in prices of pigs resulting from the limited supply in live pigs after the production decrease of 2008 due to low profitability of pig production in the years 2006 and 2007;
- economic revival on beef market and poultry production sector, and a rise in prices of beef and poultry meat;
- restored demand for milk products on world markets, halted drop in domestic prices of milk, and a dynamic increase in these prices from the third quarter of 2009.

# Value of agricultural production and price relations

In 2009, the value of global agricultural production as per current prices achieved the level of PLN 80.1 billion and was by 2.4% higher than in 2008. The value of plant production amounted to PLN 42.1 billion and was by 3.0% higher than in the preceding year, and animal production reached the value of PLN 38.0 billion, which meant an increase by 1.6%. Commercial production accounted for 71.2% of the global production value – a 3.5-point increase in comparison to the preceding year, and a 4.0%-increase in the case of individual agricultural holdings. The share of plant production in the structure of agricultural production decreased by 1.4 points, while the importance of animal production rose. **Table 3**.

Significant variations in the dynamics of plant and animal production over the years result, above all, from the variability of atmospheric conditions, which influences the volume of yields and harvests and, in consequence, the reduced feed reserves and increase in their prices. This, in turn, affects the volume of animal production. Fig. 7, Fig. 8.

In 2009, market conditions for agricultural production were still deteriorating, especially as compared to 2007, a particularly favourable year in this regard. Agricultural production and economy in 2009 were influenced by the increased cereal harvests and the reduced supply in live pigs attributable to the dramatic drop in the profitability of pig fattening in the years 2006/2007 and 2007/2008. Despite the fact that the year 2009 brought an improvement on the live pig market caused by an increase in livestock prices and low cereal prices (favourable cereal prices/livestock relation), pork production was still displaying a downward trend. Large world cereal harvests in 2008 contributed to a drastic slump in cereal grain prices. After good harvests of 2009, the prices of the majority of cereals remained at a low level. It had a positive influence on the development of the poultry production sector, which, despite the increased supply in live poultry, recorded a price rise, as compared to the year 2008. In September 2009, the long-enduring downward trend in the buying-in prices of milk was halted. Yet, even though the prices were rising dynamically in the subsequent months of 2009, the average milk prices were lower by 12.4% than in 2008.

It is estimated that as a result of a decline in price dynamics of agricultural products sold by farmers and an increase in prices of goods and services purchased for the purposes of agricultural production and for investment purposes in 2009 the index of price relations ('price scissors') remained unfavourable. It should be underlined that in comparison to the year 2008, which was exceptionally disadvantageous in this respect, the year 2009 was marked by a significant improvement. In consequence, the index of price relations ('price scissors') rose from 91.0 in 2008 to 96.1 in 2009. **Table 4.** 

In 2009, the price index of goods and services (inflation) was 103.1%, as compared to 2008, which

means that the increase in prices of agricultural products was still slower than the increase in prices of other goods and services. In this context, it should be noted that there was a relative decrease, as compared to 2008, in prices of goods and services for agriculture - for the purposes of satisfying the needs of current agricultural production (from 112.3% to 101.9%) and for investment purposes (from 105.3 to 102.3%). The growth dynamics of retail prices of most means of agricultural production were slower than in 2008. The price of fertilisers went up on average by 7.1%, of plant protection products - by 7.0%, of operating agricultural machinery - by 6.2%, and of farm animals - by 3.5%. In comparison with the preceding year, the purchase prices of sowing seeds fell by 10.1%, of feeds - by 6.0%, of fuels - by 2.6%, and of construction materials - by 1.9%. The different rates of increase in prices of individual agricultural products and agricultural means of production resulted in diverse profitability of specific lines of production. The situation of milk and cereal producers became unfavourable, whereas pork producers found themselves in a better position as the price relation of means of production to live pigs was continuously improving in the subsequent quarters of 2009. In 2009, the average buying-in prices of pork increased by 13.8%, of cattle - by 12.2 and of poultry - by 5.3%, as compared to 2008. Cereal buying-in prices fell by almost 25% - and so did the prices of milk.

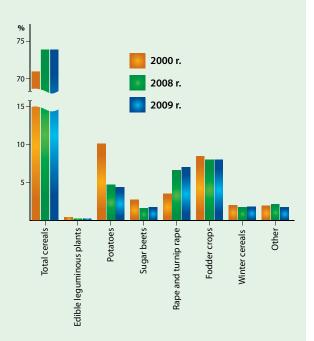
# PLANT PRODUCTION, SELECTED MARKETS AND PROCESSING SECTORS

The total area of crop sowings in 2009 amounted to 11.6 million ha, which was only slightly less than the year before (by 0.1%). As compared to the preceding year, the area of rape and turnip rape sowings increased by 5%, of sugar beet sowings – by 6.6%, and of field vegetable sowings – by 4.4%. The total

Wyszczególnienie		2003	2004	2005	2007	2008	2009	2009	2009
		preceding year = 100						2000 = 100	2005 = 100
Prices of total agricultural products sold	114,7	99,5	111,4	97,9	114,5	101,2	97,9	121,4	116,4
- plant products	107,4	106,2	93,1	94,8	125,1	94,8	88,7	108,2	120,6
- animal products	118,8	95,6	122,3	99,7	106,4	104,9	103,7	127,4	114,0
Price of goods and services purchased	111,4	102,1	108,6	102,0	106,3	111,2	102,0	148,8	121,3
Index of price relations ('price scissors') of the products sold to goods and services purchased	103,0	97,5	102,6	96,0	107,7	91,0	96,0	81,7	96,1

**Table 4.** Price relations of agricultural products to goods and services purchased by agricultural holdings; Source: CSO – *Agriculture in 2009*, Warsaw 2010.





**Fig. 9.** Structure of particular crop sowings in 2000, 2007 and 2009 (in %); Source: CSO – *Agriculture in 2009*, Warsaw 2010.

area under cereals (basic cereals and cereal mixtures), maize, buckwheat, millet and other cereal crops as well as under fodder plants shrank minimally – by 0.2% and 0.5%, respectively. The total area of cereal crops was – as in the preceding year – approximately 8.6 million ha. In comparison to 2008, the area under fodder root plants augmented significantly – by 10.8%, that is, to approximately 29 thousand ha, and the area under potatoes – by 7.7%, amounting to 508 thousand ha. The area of intensive cereal sowings (wheat, barley and triticale) increased up to nearly 5 million ha, that is, by 3.1%, as compared to 2008. Whereas a 3.8%-decrease concerned the area of extensive cereal sowings (rye, oats and fodder mixtures), which amounted to 3.3 million h. **Fig. 9.** 

In 2009, the total number of agricultural holdings growing agricultural and horticultural crops amounted to 1,897.6 thousand, that is, 73.6% of the total number of agricultural holdings and 79.4% of agricultural holdings involved in any agricultural activity. The majority of agricultural holdings - 1,666.4 thousand, that is, 87.8% of all crop-growing agricultural holdings - were engaged in cereal production. The average area of cereal sowings in one agricultural holding amounted to 5.01 ha. Despite the fact that the area under potatoes is being reduced, 1,187.3 thousand agricultural holdings (62.6% of all agricultural holdings with sown land) are still involved in their growing. Significantly fewer agricultural holdings, that is, 66.9 thousand accounting for 3.5% of all agricultural holdings with sown land, are engaged in sugar beet growing, as well as in rape and turnip rape growing - 78.3 thousand of holdings, that is, 4.1% of all agricultural holdings with sown land.

In 2009, the agri-meteorological conditions in most of the country were not conducive to plant production. There were significant daily temperature variations in the Winter period, which caused water pondings. The insufficient soil moisture from mid-April halted the growth of spring cereals and deteriorated the condition of winter cereals. It was also disadvantageous to field vegetables. The abundant precipitation at the end of May and in June led to slight flooding and contributed to the development of fungal diseases and to cereal lodging. **Table 5**.

Cereal harvests were, despite the reduced sowing area, higher than in 2008 – by 8.1% – and amounted to 29.8 million t. The total yields of cereals were by 8.1% higher than in the preceding year and reached the level of 34.8 dt per ha. The production of rape and turnip rape, sugar beets and field vegetables increased, as compared to the year before. The potato harvests were poorer (as the crop area shrank), similarly to the harvests of tree fruits, as compared to the preceding year, which was very successful in this regard.

#### **Seed production market**

In 2009, farmers became more interested in purchasing certified seed – for the harvest in 2009, they acquired over 141 thousand tonnes of certified seed of all cereals, which is a 1.2% increase as compared to the previous year. Despite the downward trend in the sale of seed potatoes and with further reduction in the area of crops, sales of certified material per 1 ha of planted area was 1.5% higher than in 2008.

In 2009, production of seed material of agricultural plants was mainly decreasing. 13.2% less cereal seed was qualified for sale as compared to the previous year. The most significant decrease in seed production was that of rye (by 41.4%) and other winter cereals, what – by 14.5%, barley (by 11.8%) and triticale (by 10.7%). 16.3% less maize seeds were qualified. The production of other spring cereals decreased to a lesser extent. The supply of leguminous plant seeds increased by 35%. The slump in supply also affected seeds of beet, oil plants and small-grained papilionaceous plants.

In 2009, the area of certified seed plantations of agricultural plants increased again and amounted to 105.6 ha; it was 4% higher than in 2008. The area of cereal seed plantations increased slightly, yet their structure changed visibly. The area of seed winter cereal plantations increased – of wheat by 20.7%, of triticale by 24.4% and of barley by 25.9%. The area of seed plantations of spring wheat and barley decreased by ca. 34% and 23%, respectively, while the plantation area of spring rape decreased by 89%. Seed plantation of grass species was lower by 5.7%.

In the National Register of Plant Varieties, the number of new varieties of agricultural plants increased to 1,257 (i.e. by 30 varieties) as compared to 2008. The share of foreign varieties was 49.3%.

National varieties have a similar share in the structure of seed plantations. Foreign crops predominate in the production of barley seed – 83.3%, maize – 76.4% and sugar beet – 72.4%.

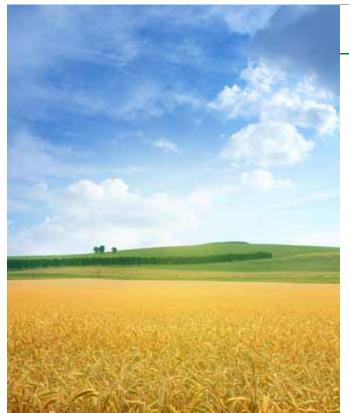
Despite direct aid for seed material since 2007, the share of certified seeds in total crops remains low. The average share of certified seed material of cereals in total production was 9.6% in 2009. The highest amounts of certified seeds are used in growing spring wheat and winter barley, while the lowest amounts are used in growing rye. The share of certified seed potatoes was 3.9% in 2009. In 2009, the Agricultural Market Agency paid its beneficiaries PLN 60.3 million as aid for seed material, of which PLN 59 million as *de minimis* aid and PLN 1.3 million as aid for seed material in connection with draught and damages to crops sustained by farmers in 2008.

Regional differences as to sale volumes of seeds remain: the majority of cereal seed material is

	1996 - 2000	2001 - 2005	2008	2009		2009	
		Annual	average		1996 -2000 = 100	2001 - 2005 = 100	2008 =100
To	tal cereal:	S					
A	8796,0	8396,7	8598,8	8583,0	97,6	101,9	99,8
В	28,6	31,9	32,2	34,8	121,7	108,5	106,1
C	25189,4	26758,3	27664,3	29827,0	118,4	111,5	107,8
To	tal wheat						
A	2576,8	2375,6	2277,9	2346,0	91,1	98,8	103,0
В	34,0	38,0	40,7	41,7	122,6	109,7	102,5
C	8772,0	9022,0	9274,9	9790,0	111,6	108,5	105,6
Ry	e						
A	2275,4	1601,0	1396,5	1396,5	61,4	87,2	99,9
В	22,7	24,4	24,7	26,6	117,2	109,0	107,7
C	5160,0	3910,0	3448,5	3713,0	71,9	95,0	107,7
To	tal barley						
A	1142,6	1053,0	1206,6	1157,0	101,3	109,9	95,9
В	29,9	31,7	30,0	34,4	115,0	108,5	114,7
С	3420,0	3337,0	3619,4	3984,0	116,5	119,4	110,1
Oa	ts						
A	590,0	544,4	550,6	525,0	89,0	96,5	95,4
В	24,4	24,7	22,9	26,9	110,2	108,9	117,5
С	1437,5	1346,0	1262,3	1,415,0	98,5	105,1	112,1
To	tal tritical	e					
A	663,4	1004,4	1333,5	1465,0	220,8	145,9	109,9
В	30,2	32,2	33,4	35,7	118,2	110,9	106,9
С	2006,0	3237,0	4459,6	5234,0	260,9	161,7	117,4
Po	tatoes					ı	
A	1292,0	813,0	548,9	508,0	39,3	62,5	92,5
В	183,0	180,0	191,0	191,0	104,4	106,1	100,0
С	23620,0	14600,0	10462,0	9703,0	41,0	66,5	92,7
	pe and tu						
Α	409,6	479,4	771,1	810,0	198,0	169,1	105,0
В	20,7	24,6	27,3	30,8	148,8	125,2	112,8
С	846,7	1178,0	2105,8	2497,0	294,1	211,9	118,6
	gar beet						
A	395,4	298,0	187,5	200.0	50,6	67,1	106,6
В	377	411	465	543	144,0	132,1	116,8
С	14920,1	12236,0	8715,1	10849,0	72,7	88,7	124,5

- A area in thousand ha
- B yield of 1 ha in dt
- C harvest in thousand tonnes

**Table 5.** Area, harvest and yield of main crops Source: CSO – *Agriculture in 2009*, Warsaw 2010. *Concise Statistical Yearbook of Poland 2009* 



Specification	2006/07	2007/08	2008/09	2009/10 estimation	2010/11 projection
Initial reserve	3,8	0,7	2,0	3,2	5,5
Production	21,8	27,1	27,7	29,8	26-27
Imports	3,5	2,1	2,3	1,2	08-1,0
Total resources	29,1	29,9	32,0	34,2	32,3-33,5
Domestic use	27,2	26,8	26,5	26,7	27,5
- consumption	5,4	5,3	5,3	5,3	5,3
- sowing	1,7	1,7	1,8	1,8	1,7
- industrial processing	2,0	2,0	2,1	2,5	2,7
- fattening	17,0	16,7	16,1	15,9	16,6
- losses	1,1	1,1	1,2	1,2	1,2
Exports	1,2	1,1	2,3	2,0	1,5-1,7
Final reserve	0,7	2,0	3.2**	5.5**	3,3-4,3

#### \* Including maize

**Table 6.** Cereals balance in the years 2004/2005-2010/2011 (thousand tonnes); Sources: data from CSO (GUS), IERiG $\dot{Z}$ , own calculations as at 14.06.2010

Entities	The amount of aid (PLN thousands)
Sugar producers	807 605,91
Sugar beet planters	477 026,62
Service providers	2 724,82
Total restructuring aid	1 287 357,34

Table 7. Amounts of restructuring aid

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sold in Śląskie, Kujawsko-Pomorskie and Opolskie Voivodeships, while the smallest quantities are sold in Zachodniopomorskie, Mazowieckie and Lubelskie Voivodeships.

#### **Cereal market and processing**

Domestic demand for cereals has been fluctuating between 26-28 million tonnes (the latter is a record high from 2004). The main factors influencing the changes in domestic consumption of cereals in particular economic years are cyclical fluctuations in the number of pigs and increasing poultry production. Consumption of cereals, which had been stable, has recently developed a downward trend. On the other hand, industrial consumption of grain is systematically increasing, even though its share in the total cereals production remains slight. The use of grain in cropping also remains stable. Fattening plays the dominant role in domestic consumption. Every year, an average of 16-18 million tonnes of cereal is used as feed, of which 10.5-11.1 million tonnes for pigs and 3.0-3.5 million tonnes for poultry. In the recent years, there has been a downward trend in the use of wheat and rye as feed, which are being replaced by maize and triticale. The use of cereals for consumption has been steadily decreasing since 2005 and currently amounts to slightly over 5 million tonnes. The decrease in consumption is mainly a result of changing eating habits and declining population. In brewing and distilling industries, gradual increase in cereal processing has been observed for about dozen years. The predicted development of the biofuel market should also stimulate further increase in cereals consumption and a further increase in its share in domestic consumption.

Crops of cereals in 2010 will probably be lower than in 2009. Smaller areas of cereal plantations for 2010 crops and agrometeorological conditions that are not very favourable to plant growth (excessive rain, water ponding in the fields thus making agro-technical procedures impossible) may result in decreasing crops of cereals and lower production in certain areas of Poland. The current conditions are particularly adverse to maize growing. It is estimated that this year's crops (including maize, buckwheat and millet) would be ca. 26-27 million tonnes or 10-14% lower than in 2009. **Table 6.** 

It is estimated that in the season 2010/2011 domestic use of cereals would be higher than in the season 2009/2010 (by 2%) and would amount to 28 million tonnes. Traditionally, the highest item among outgoings will be the use of cereals as feed which may increase to 16.6 million tonnes, i.e. by 0.7 million tonnes, due to the increase in the stock of pigs and the

<sup>\*\*</sup> Including intervention reserves

projected further increase in poultry production. It is assumed that the use of cereals in industry would decrease by 8% to 2.7 million tonnes. A slight decrease in cereal consumption is also expected. According to estimates by IERiGŻ, reserves of cereals as at the end of season 2010/2011 would amount to 3.5 million tonnes, they will be 30% lower than in the previous year. The level is nonetheless considered safe.

#### **Cereal processing**

Industrial cereals milling increased in 2009 by 8%, or by 3.4 million tonnes, as compared to 2008. The production of the majority of cereal products also increased. While industrial production of wheat flours was 6.7% higher than in the previous year, production of rye flours decreased within the last two years. Production in the pasta sector revived in 2009 (with an increase of 18%). There were no major changes in the production of rye flours and fresh bread. Production of groats increased by 5%, with a slightly lower production of cereals.

Investment outlays in primary and secondary cereal milling plants decreased in 2009 by 32% and 11%, respectively (with the exception of long shelf life pastry products).

All sectors of cereal processing achieved a positive financial result in 2009. Net profitability ranged between 4% in cereal milling and 11% in pasta production. The safest financial position was achieved by producers of feed, pasta and fresh bread as the current liquidity rate in the sectors was around 1.2. Long-term debt was the highest in the sector of feed and milling – it exceeded amortisation almost twofold.

#### **Sugar market**

As a result of the sugar market reform, the European Union saw a reduction in sugar beet production on the Community market along with a gradual reduction in the minimum price of sugar beet and the reference price of sugar. The purpose of the reform was to enhance competitiveness of the EU sugar industry, yet the way in which it was introduced and its costs burdened large sugar producers to the greatest extent, also the Polish sugar industry. In economic year 2008/2009 sugar producers in Poland renounced 366,868.9 tonnes of sugar quota which constitutes 20.7% of Poland's total production quota. From economic year 2009/2010 Poland's sugar production quota is 1,405,608.1 tonnes. Reducing the sugar production quota resulted in closing a few production plants and reducing the area covered by sugar beet. Prior to the reform, the area of sugar beet plantations decreased from 286 thousands hectares in 2005 to 191 thousands hectares in 2009. Even despite the reduction in production, Poland is the third largest sugar producer in the European Union, outpaced only by France and Germany.

According to EU regulations, sugar beet planters sell their produce at the guaranteed price which is EUR 26.29/tonne from economic year 2009/2010.

Moreover, planters who concluded a contract for sugar beet supply with a sugar producer for economic year 2006/2007 and complied with direct payment eligibility conditions in the given year had the right to receive a separate payment on sugar, the so-called sugar payment. Pursuant to the Ordinance of the Minister of Agriculture and Rural Development of 6 November 2009 on the sugar payment rate for 2009, the rate is PLN 53.47/tonne of sugar beet. In the previous years the rates were: PLN 37.29/tonne in 2007 and PLN 39.45/tonne in 2008.

Current EU regulations on the sugar market, including the minimum price of sugar beet, will remain in force until economic year 2014/2015 inclusive. In spite of the reduction in profitability of growing sugar beet due to the sugar market reform and an increase in production costs, sugar beet growing is still considered more profitable than growing wheat and rape.

In order to mitigate the negative effects of sugar industry restructuring, sugar producers, sugar beet planters and service providers who rendered services consisting in harvesting and/or further cleaning of sugar beet for planters affected by the restructuring received one-off restructuring aid in the following amounts: **Table 7.** 

Additionally, the National Restructuring Programme was introduced. The main objective of the Programme is to provide financial support to solutions alternative to the production of sugar beet and sugar in gminas covered by the restructuring of the sugar sector. For that purpose EUR 34.4 million was earmarked. The programme provides support for modernisation of agricultural holdings (ca. EUR 10 million) and enhancing value added of primary agricultural and forestry production (ca. EUR 24.4 million).

The 2009/2010 sugar production campaign covered 18 sugar plants. Sugar producers purchased from planters and processed 10,848 thousand tonnes of beet. The campaign started on 10 September 2009 and ended on 2 February 2010. 1,647 thousand tons of sugar were manufactured from the raw material. Sugar beet was harvested from 191.2 thousand hectares, with the average yield of 56.7 tonnes/ha and with average sugar output of 14.81%. In 2009, the area of an average plantation was 4.8 ha.

From economic year 2010/2011 Poland's sugar production market is divided between four producers: Krajowa Spółka Cukrowa S.A. – 37.8% market share,



#### 2009 2001 -2008 2009 2001 - 2005 = 100 2008 = 100 **Total outdoor vegetables** 207,9 197,8 206,5 99,3 A 104.4 C 4653 4810 4430 103,4 108,6 Cabbage Α 29,7 30,3 87,8 102,3 34.5 В 396 406 401 101,3 104,0 C 1365 1209 1276 93,5 106,7 Cauliflower A 10,9 10,5 10,9 100,0 103,8 В 188 211 207 110,1 98,1 C 205,1 221 225 109,7 101,8 Onions 94,9 Α 33,1 30,2 31,4 104.1 В 205 225 212 106,1 109,8 c 701 618 708 101,0 1145 Carrots for human consumption A 30,9 95,5 104,7 28.2 29.5 В 278 290 309 111,2 106,6 C 861 817 913 106,0 111,8 Beet 91.0 Α 145 127 132 1047 В 252 104,8 254 264 103.9 C 365 322 351 96,2 108,8 Cucumbers Α 21,1 18.7 18.8 89.1 100,8 В 133,0 145 136 102,2 93,8 C 280 272 256 91.4 94.2 **Tomatoes** Α 13,0 12,2 12,9 99,2 105.1 В 181 210 113,8 206 98.1 235 257 265 121,8 1031

A – Area in thousand hectares; B – Crop from 1 ha in dt C – Harvest in thousand tonnes

Tab. 8. Area of crops, yield and harvest of soil-grown vegetables; Source: Agricultural and horticultural plant production in 2009, CSO.

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Pfeifer & Langen Polska S.A. with Pfeifer & Langen Glinojeck S.A. – 28.3%, Südzucker Polska Sp. z o.o. – 23.3% and Nordzucker Polska S.A. – 10.5%.

## Fruit and vegetables – market and production

The year 2009 saw an increase in the area of soil-grown vegetable plantations by 4.4% as compared to the previous year, yet it decreased by 0.7% as compared with the average from the years 2001-2005. Production of soil-grown vegetables increased by 8.6% as compared to the previous year due to an increase in plantation area and higher yield from the majority of species. The crop of onions increased to the greatest extent (by 14.5%) – it was much lower in the previous year (by 90,000 tonnes). The crop of cucumbers decreased considerably as compared to the previous year, i.e. by close to 6%. **Table 8.** 

After 2007 which saw disastrously low harvest of fruit and record-high yield in 2008 (3.3 million tonnes), in 2009 yield of fruit from trees was 5.7% lower than in the previous year, yet still high. Among all species, only production of apples and cherries was lower than in the previous year (by 7.2% and 6.2%, respectively). Low purchasing prices of these fruits were the reason behind a severe deterioration of production profitability, due to which producers decided to leave a part of these fruits on trees.

In 2009, production of the majority of fruits from fruit-bearing shrubs and plantations of berries decreased. In this group, the crop of Northern Highbush Blueberry was very high (an increase by 40% as compared to the previous year). **Table 9.** 

Similar to the previous year, the greatest share in the crop of fruit from trees was posted by apples and sour cherries: 84.2% and 6.4%, respectively.

## **Organisation of fruit and vegetables** market

When Poland joined the EU, the Polish horticultural sector was included in the Fruit and Vegetable CMO. The basic element of the Common Market Organisation consists in initially approved groups of fruit and vegetable producers as well as approved organisations of fruit and vegetable producers through which the sector receives financial aid from the EU and national budgets. In mid-July 2010, there were 159 fruit and vegetable producer groups and 29 producer organisations in Poland. Producer groups and organisations are established primarily in regions specialising in horticultural production, i.e. in Mazowieckie Voivodeship (mainly apples, mushrooms and vegetables), Kujawsko-Pomorskie Voivodeship

(tomatoes), Wielkopolskie Voivodeship (vegetables, mushrooms) and Lubelskie Voivodeship (soft fruit, apples). Even as the market organisation level may seem high in terms of the number of groups and their organisation, in practice the market organisation level measured as the value of marketed fruit and vegetables does not exceed 8-10%. For comparison, the average level of organisation of the fruit and vegetable market in the EU is about 35-36%.

The purpose of these groups and organisations is to concentrate supply of and demand for the products of their members, to plan production and to adjust it to demand, to reduce production costs, stabilise product prices as well as to promote cultivation methods, technologies of production and management of wastewater and waste in compliance with environmental protection rules. Groups and organisations may receive different kinds of financial aid for such measures.

#### EU aid on certain plant product markets (tobacco, flax, hemp, dried fodder and basic information on the hop and tobacco market)

In 2009, tobacco planters received complementary coupled or decoupled payments.

The year 2009 was the last year when coupled payments were granted for raw tobacco. A total of PLN 263,857,357.5 was earmarked for such payments. The total coupled payment rate was PLN 6.7635/kg of group I raw tobacco (Virginia varieties) and PLN 5.6112/kg of group II, III and IV raw tobacco. A total of PLN 122,367,894 was earmarked for decoupled payments, of which: PLN 78,364,176 was paid to historical producers of tobacco of Virginia varieties (group I) and PLN 44,003,718 was paid to group II, III and IV tobacco producers.

On the market of flax and hemp, payments were granted for processing of flax and hemp straw into fibre. Payment rate was EUR 200/tonne for long flax fibre and EUR 90/tonne for short flax fibre and hemp fibre.

Payment rate for the processing of dry fodder was EUR 33/tonne.

The payment mechanism on the above mentioned markets is implemented by Agricultural Market Agency (Polish abbreviation: *ARR*).

Poland is the third hop producer in the EU, outpaced by Germany and the Czech Republic. In 2009 the area of hop crops was 2,166.82 ha and the harvest was 3,692 tonnes.

Poland ranks second in the European Union as to tobacco size production, after Italy. In 2009 tobacco was grown by over 14,000 holdings on the area



	1996 - 2000	2001 - 2005	2008	2009	2009		
		średnio	rocznie		1996 -2000 = 100	2001 - 2005 = 100	2008 =100
Fruit harvest Total	2564	3237	3841	3646	141,1	112,6	95,0
Fruit harvest from trees	2134	2762	3288	3100	145,3	112,2	94,3
of which: apples	1758	2325	2831	2623	149,2	113,0	92,8
pears	68	79	73	83	122,0	105,6	114,0
plums	108	114	114	121	112,0	106,2	106,3
sour cherries	145	177	202	189	130,3	106,8	93,8
cherries	37	43	41	51	137,8	117,2	123,7
Harvest of fruit from fruit-bearing trees and planta- tions of berries	430	475	553	546	127,0	114,9	98,7
of which: straw- berries	169	179	201	199	117,2	111,2	99,1
raspberries	41	51	82	82	200,0	160,8	100,0
currants	166	181	187	196	116,7	108,3	99,9
gooseberries	35	22	18	16	45,7	72,7	97,7

**Table 9.** Harvest of fruit from fruit-bearing trees and plantations of berries (in thousand tonnes); Source: Agricultural and horticultural plant production in 2009, CSO.

	1995	2000	2007	2008	2009					
in thousand heads										
Cattle	7305,6	6082,6	5696,	5757,7	5700					
of which: cows	3578,9	3097,5	2788,7	2808,5	2688					
Pigs	20417,8	17122,0	18128,5	15425,3	14279					
of which: sows	1875,2	1577,4	1767,4	1366,6	1374					
Sheep	713,2	361,6	331,9	323,6	286,4					
in heads per 100	ha of agri	cultural la	nd							
Cattle	39,2	33,0	35,2	35,8	35,4					
of which: cows	19,2	16,8	17,2	17,4	16,7					
Pigs	109,6	93,0	112,1	95,5	82,3					
of which: sows	10,1	8,6	10,9	8,5	8,4					
Sheep	3,8	2,0	1,9	1,7	1,7					

**Table 10.** Farm animals between 1995 and 2009<sup>1/</sup> [<sup>1/</sup>The number of pigs as at the end of July]; Source: Land use, sown area and farm animal stock in 2009, CSO.

	Α	nnual	averaç	je		2009	
Specification	1996 - 2000	2001 - 2005	2008	2009	1996 - 2000 = 100	2001-2005 = 100	2008 = 100
Slaughter livestock production in thousand tonnes in live weight	4181	4505	4975	4834	115,6	107,3	96,6
of which: cattle (excluding calves)	733	577	722	740	100,9	128,2	102,5
pigs	2572	2586	2483	2202	85,6	85,1	88,6
Poultry	726	1223	1664	1783	245,0	145,8	107,1
Per meat in hot carcass weight	3156	3425	3751	3623	114,8	105,8	96,2
Cow's milk in million litres	11.762	11.533	12063	12085	102,7	104,8	100,2
Chicken eggs in million pieces	7415	9013	10463	10881	145,6	120,7	104,0
Animal productivity	avera	ge ann	ual cap	oacity	from 1	anima	ıl)
Milk yield from 1 cow in litres	3453	3982	4351	4455	129	111,8	102,4
Number of eggs from 1 laying hen, pieces	174	201	217	226	131,0	112,4	105,1

**Table 11.** Production of basic animal products between 1996 and 2009; *Source: Concise Statistical Yearbook 2009, CSO, Agriculture in 2009 CSO.* 

	ars	27	pu	any	Germany Denmark		ces in Pola pressed in	
	nd nths	UE-27	Poland	Germ	Denmark	UE-27	Niemcy	Dania
77	VII	146,12	144,81	150,74	121,73	99,2	96,2	119,1
2007	XII	132,11	129,82	135,40	112,06	97,8	95,9	115,8
8	VII	169,22	185,13	178,08	139,51	109,4	103,3	131,4
2008	XII	144,36	150,27	150,82	125,21	104,1	99,6	120,0
6(	VII	156,48	160,52	158,40	134,27	102,3	101,4	119,6
2009	XII	131,92	125,81	134,34	113,78	95,4	93,7	110,6

**Table 12.** Market prices of pigs in the EU (EUR/100 kg of carcass weight) and prices in Poland expressed in % of those prices (July and December of 2007 and 2008); *Source: IERiGŻ – Meat market 2010.* 

of 16,875 ha. Total production was 43.8 thousand tonnes.

# ANIMAL PRODUCTION, SELECTED MARKETS AND PROCESSING SECTORS

In 2009 the Polish meat market displayed significant changes as compared to the previous year. With increased supply of cereals and a decrease in their prices, the situation in the sector of animal production was influenced by a deceleration of the decrease in the number of pigs, further development of poultry production and increasing interest in cattle rearing. In 2009, the average prices of pigs increased by 13.8% and of beef by 12.2%. Profitability of pig rearing improved as a result of an increase in prices of live pigs and a decrease in prices of cereals and feed. As a consequence, the decreasing trend in pig rearing observed for a few years reversed. In 2009 cattle purchasing prices were record high; they increased by over 12% as compared to the previous year. After a few years of stagnation, such a significant increase improved the profitability of cattle rearing. Favourable market circumstances also resulted in a considerable acceleration of growth of live poultry and poultry meat in 2009. In spite of the increase in purchasing prices of live sheep in 2009 as compared to 2008, the number of sheep and live sheep production decreased further (by 10.9%). Table 10.

In 2009, the private sector controlled 94.5% of cattle stock, 86.6% of pigs, 95.4% of sheep, 98.1% of horses and 99.9% of poultry.

In 2009 the share of individual holdings in cow milk production remained at the level from the previous year (92.6%). The structure of holdings rearing cows is changing. While holdings with less than 30 cows withdraw from milk production, the number of holding with more than 30 cows is on the upside. Still, about one-third of cows are kept in the smallest holdings. The trend of reducing stock in small holdings is a sign of accelerating the process of milk production concentration, clearly visible in 2010.

In June 2010, the stock of milk cows reared for consumption milk constituted 95.6% of total cow population. Within the last six years the stock of milk cows decreased by 232,000 heads (by 8.4%), while the number of other cows increased over fourfold (from 26.5 to 116.8 thousand heads). Suckler cows, used primarily for rearing meat calves, had the greatest influence on the dynamically developing stock of other cows. The number of milk cows decreased in all types of holdings, but in individual holdings the rate of decrease was lower (by 2.4%) than in holdings of legal persons (by 6.5%).

In spite of significant progress in milk production concentration, 73% of cows are still kept in small holdings (10-29 cows) and the smallest holdings (up to 9 cows), only 6.2% are kept in holdings of 100 cows or more. In EU-15 the average herd of cows is composed of over 40 cows and the share of the largest herds in stock structure is over 60%.

Of the total number of cows kept in individual holdings, 9.2% were in holdings with one cow (10.2% in 2008), 7.7% in holdings keeping 2 cows (9.1% in the previous year), 8.4% in holdings with 3-4 cows (10.1% in the preceding year), and the highest 74.7% – in holdings with 5 cows and more (70.6%).

Out of total pig stock kept in individual holdings, 5.6% of pigs were kept in holdings having between one and 10 animals and about 84.1% in holdings having 20 animals and more (85.5% in 2007).

The stock of poultry is dominated by chickens that constitute 88.5% of the total stock, as compared to 2.7% of geese, 5.3% of turkeys, and 3.5% of ducks and other poultry.

In 2009 animal production was 1.6% higher than in the previous year, mainly as a result of an increase in live poultry production by 7.1%, of live cattle by 2.5%, chicken eggs by 4.0% and milk by 0.2%. The favourable relation of purchasing prices of live pigs to purchasing prices of cereals in 2009 resulted in deceleration of a reduction in the number of pigs. At the end of July 2009 the stock of pigs amounted to 14,278.6 thousand animals and was 7.4% lower than a year ago, yet at the end of November 2009 the stock of pigs was only slightly higher than in November of the previous year (100.1%). In June 2008, the stock of cattle consisted of 5,700 thousand animals and was 1.0% lower than a year ago. In June 2010, the stock of cattle consisted of 5,724 thousand animals and was 0.4% higher than a year ago. In 2009, the number of sheep and live sheep production decreased, while production of live poultry for slaughter rose by 7.1%. Table 11.

In 2009, the global production of pork amounted to 100.8 million tonnes and was 2.3% higher than in 2008: in China it increased by 6%, in EU-27 and the United States it decreased by 2.5% and 1.5%, respectively. The total production of China, United States and EU-27 constitutes 81% of global production. In 2009, the global production of beef decreased by 2%: in China by 5%, in the United States by 2% and in EU-27 by 1.0%. The total beef production of China, United States, Brazil, Argentina and EU-27 constitutes close to 71% of global production. In 2007, the share of Polish production of meat from slaughter in EU-25 amounted to 8.7% and 7.1% in Europe; thus Poland ranks seventh. Poland's share in global production of meat from slaughter in 2007 amounted to 1.3% – a result awarding the 14th place (16th in 2000).

In terms of milk production, Poland holds the sixth place in Europe (5.8% share); Poland's share in EU-27 is 8.2%. In global milk production, Poland's share is 2.3% which gives it the tenth position (1 position higher than in 2000).

#### **Meat market and processing**

In 2009, production of the three basic types of livestock as per hot carcass weight amounted to 3,351 thousand tonnes and was 4% lower than in the preceding year. Poultry and cattle production increased by 7% and 3%, respectively; pigs production, on the other hand, decreased by 11%. The decrease in production in the pork segment was due to low profitability of pigs production in the years 2006 and 2007 that resulted in large reduction in the stock of pigs in 2008. Domestic supply of live pigs was low as a result of a production breakdown in 2009. It resulted in an increase in purchasing prices by 13.8% which, accompanied by a favourable relation to purchasing prices of cereals, decelerated the decrease in pigs production in 2009. **Table 12**.

The stock of cattle had been increasing for a number of years, yet in 2009 it slightly decreased as compared to the previous year (by 57,000 animals). In June 2010, the stock of cattle increased by 0.4% as a result of changes in its structure. As compared to June 2009, the stock of other cows increased by 1.9%, of which suckler cows by 44%, yet the stock of milk cows decreased by 1.2%. In terms of ownership, the stock of cows increased in individual holdings (by 0.7%) and decreased in the public sector.

Analyses of household budgets show that in 2009 total consumption of meat, meat products and offal was 1.0% lower than in 2008. In 2009, as compared to the previous year, consumption of pork decreased by 1.9% (from 42.7 in 2008 to 41.9 kg/person), of beef by 5.3% (from 3.8 to 3.6 kg/person) while consumption of poultry increased by 0.8%.

#### **Meat processing**

In 2009, industrial slaughter of cattle and calves increased by 4.3%, while commercial slaughter of pigs decreased considerably as compared to the previous year (by over 20%). The decrease in raw materials from own slaughter was compensated by import of pork (over 550,000 tonnes) and constantly increasing processing of poultry meat. Due to both these factors, the decrease in own slaughter did not affect turnover of meat plants. In the years 2007-2009, turnover of meat plants increased by over 15% with the 10% increase in prices of their products. After two years of a visible decrease in commercial slaughter of pigs, production revived in November 2009. On the basis of production results of large and medium-sized com-



Specification	2007	2008	2009	2010P	2009 2008	2010P 2009
Commercial slaughter	2221,8	2000,4	1859,5	1900,0	93,9	102,2
of which: - pigs	1859,0	1822,6	1453,0	1510,0	79,7	103,9
- cattle and calves	350,6	367,8	383,9	375,0	104,3	97,9
Meat industry outp	ut					
Slaughter: – pigs	1451,5	1214,5	1101,0	1150,0	90,7	104,4
- cattle and calves	229,3	184,1	187,0	185,0	101,6	98,9
Production of meat products	1146,6	1027,0	957,0	1020,0	93,2	106,6
Production of large	and med	dium-size	ed compa	nies		
of which: - pig slaughter	953,1	873,6	814,6	870,0	93,2	106,9
- cured meat production	754,9	708,7	624,7	670,0	88,1	107,2

**Table 13.** Processing of meat from slaughter animals (in thousand tonnes); *Source: IERIGZ – PIB, Meat Market 2010* 

Specification	2007	2008	2009	2009:2008
Number of dairy	232	224	214	95,5
Employment	37230	35818	35574	99,3
Sales (PLN billion)	21,8	20,9	20,9	100,0
Profitability ratio (%)				
gross	3,81	1,08	3,85	359,2
net	3,04	0,58	3,36	579,3
capital formation	5,53	3,29	6,19	188,4
Current liquidity	1,42	1,47	1,49	101,4
Investment rate	1,73	1,30	1,03	74,6
Share of profitable companies in the total number of companies	84,5	47,3	83,2	177,2

**Table 14.** Economic and financial results in the milk processing sector; *Source: IERIGŻ – Milk Market* 

panies IERiGŻ estimates that commercial slaughter of pigs would increase by about 5% in 2010 and commercial slaughter of cattle would be similar or lower than in 2009. **Table 13.** 

After a temporary decrease, mainly in 2008, the results and the financial condition of the meat industry are improving. As compared to the previous year, total revenue increased by 10.4%, net profit increased by 44.1% and own capital by close to 13%. Long-term debt decreased by 13.2%. Almost the entire net profit was used to boost own working funds which translated into a reduction in investment of large and medium-sized meat industry companies. From 2009 the meat industry has been witnessing favourable relations of selling prices to purchasing prices, accompanied by an increase in labour productivity, reduction in energy intensity and improvement in efficiency. Improvement in financial results is also visible in 2010 thus proving sustainability of favourable trends.

#### Milk market and processing

According to CSO data, in 2009 the value of commercial milk production was PLN 9.3 billion and constituted over 16% of overall value of commercial agricultural production. In 2009, the value of total milk production in Poland reached 12.45 million tonnes and was 0.2% higher than in 2008. The increase in milk production is primarily due to improvement in milk yield of cows. In 2009, the average yield of milk cows in Poland was 4,590 kg/cow, an increase of 2.3% as compared to 2008. At the end of 2009, the number of milk cows decreased by 4% to 2.585 million as compared to the end of 2008 as a result of a decrease in the number of milk producers in Poland. The number of milk cows covered with use value assessment is increasing: at the end of 2009 the assessment covered over 22% of milk cow stock and their average milk yield reached 6,935 kg.

Commercial production of milk is executed by close to 195,000 suppliers, of which 177,700 wholesale suppliers and 16,800 direct suppliers (as at 31 March 2010). Since introduction of the milk quota system in Poland, the number of milk suppliers decreased considerably, primarily due to abandoning this direction of production by holdings which keep small numbers of milk cows where investment is not economically viable. This leads to concentration and specialisation of milk production which raises the competitiveness of particular milk-producing holdings. This process is also stimulated by EU subsidies to investment projects related to modernisation of agricultural holdings.

Thanks to changes in the structure of holdings and an increase in the number of holdings producing

on a larger scale, the yield of marketable milk production increases on an annual basis. National milk quota assigned to Poland under the milk quota system is utilised to a significant extent. In the quota year 2009/2010, 9.07 billion kg of milk was purchased – this means that wholesale providers used ca. 96% of the quota which they were granted.

As at July 2010, a total of 288 purchasers were involved in purchasing milk, 200 out of which also dealt with milk processing. The figure has been gradually decreasing since quota year 2004/2005 – so far it has decreased by ca. 20%.

The structure of processing of purchased milk is also changing. Production of dairy drinks, including various yoghurts, is steadily increasing. Following increases in recent years, 2009 saw a slight decrease in production of maturing cheeses. Production of butter and skimmed milk powder is also on the downside.

Consumption of milk, including milk intended for dairy products (but excluding milk processed into butter), reached 188 l per citizen. In the structure of dairy product consumption, the consumption of maturing cheeses, curd and dairy drinks remains stable. The deceleration in butter consumption stopped.

The Polish milk sector is covered by the common organisation of the market of milk and milk products under Common Agricultural Policy of the EU. The main goal of this organisation is to limit the production and sale of milk and milk products and undertake particular intervention measures in order to stabilize the prices. Limitation of milk production stands for establishing, for each Member State, a national milk quota defining the maximum amount of milk which can be marketed in a given quota year, i.e. in the period between 1 April of a given calendar year and 31 March of the following year. If a Member State exceeds this amount, it must to pay a fine. In quota year 2009/2010, Poland was assigned national quota of 9.66 billion kg, of which ca. 9.50 billion kg for wholesale and ca. 160 million kg for direct sales. Those quotas were not exceeded. In the current quota year 2010/2011, the national quota will be 1% higher and thus it will amount to ca. 9.76 billion kg.

#### Milk processing

In 2009, production of processed liquid milk increased to 2,703 million litres, of which transfer milk (sold to other diary plants for further processing) to 1,030 million litres. Production of condensed milk and cream increased to 56,400 tonnes. Production of whole milk powder decreased to 32,800 tonnes. The decreasing trend in production of cream and creamer remains unchanged: production decreased from 374,000 tonnes in 2008 to 361,000 tonnes in 2009.

The trend also concerns butter production which decreased in 2009 by further 12,300 tonnes. Production of yoghurts and other fermented milk drinks increases dynamically year by year: in 2009 it increased by over 17% and amounted to 654 million litres. The trend is confirmed by output in seven months of 2010, when production of yoghurts and fermented drinks increased by another 12% as a result of increasing domestic demand and developing exports.

2009 saw further improvement in financial standing of milk processors. Dairy plants improved their efficiency, as evidenced by a reduction in employment by 0.7%, an increase in gross and net profitability and capital formation ratio, and almost twofold increase in the share of profitable companies in the total number of companies as compared to 2008. The decrease in investment rate may unfavourably impact adjustment processes in the dairy sector after liquidation of milk quota. In spite of progress in restructuring which results in a decreasing number of companies, increasing the size of a company, simplifying the structure of production and specialisation of individual production plants, industry consolidation is not satisfactory as for the needs of the milk market which is liberalising due to CAP reform. Table 14.

The scope of market intervention which may be undertaken on the milk and milk product market results directly from EU regulations in this area; whereas certain mechanisms are obligatory, others are facultative, i.e. their launching depends on the situation on the milk market. Obligatory mechanisms include intervention buying-in of butter and skimmed milk powder as well as aid for private storing of butter and aid for consumption of milk and milk products in educational establishments. The decision to implement other support mechanisms, i.e. aid for skimmed milk powder used for production of casein and caseinates, aid for skimmed milk powder used for production of feed and export refunds for milk products is made by the European Commission based on the price situation on the milk market.

The mechanism ,Aid for consumption of milk and milk products in educational establishments' was introduced with Poland's accession to the European Union. It is implemented by Agricultural Market Agency. The programme is aimed at children and youth in kindergartens, primary and secondary schools. Its objective is to promote a healthy diet and lifestyle among children and youth by delivering milk and milk products to schools and kindergartens on a daily basis.

The programme is financed from three independent sources, i.e. the following:

▶ The EU budget;



Specification	2005	2006	2007	2008	2009	2008 = 100
Grain of 4 cereals intended for processing	119	117	114	112	111	99,1
Potatoes	126	121	121	118	116	98,3
Vegetables	110	109	115	115	115	100,0
Fruit	54,1	54,4	41,0	55,0	55,0	100,0
Meat and offal	71,2	74,3	77,0	75,3	75,1	99,7
of which: meat	66,8	70,0	72,2	71,2	71,0	99,3
Edible animal fats	6,6	6,1	6,4	6,4	6,1	99,7
Butter	4,2	4,3	4,2	4,3	4,4	102,4
Milk	173	176	178	182	185	101,6
Chicken eggs	215	214	209	205	203	99,0
Sugar	40,1	35,3	39,7	38,4	38,1	99,2

**Table 15.** Annual consumption of basic food products per capita (kg/litres/pieces); *Source: IERiGŻ-PIB, Demand for Food 2010* 

- Additional financing from the Milk Promotion Fund introduced in kindergartens and schools in the beginning of 2006;
- ▶ Additional financing from the state budget (national aid) for primary schools which, since September 2007, provides white milk (without flavour additives) for children in schools free of charge.

Educational establishments, suppliers (dairies, intermediaries), gmina offices and social organisations are all eligible beneficiaries of aid. In the school year 2009/2010, over 2.8 million pupils were covered by the programme of co-financing consumption of milk and milk products in educational establishments. According to initial data, a total of ca. 65 thousand tonnes of milk and milk products were delivered to schools in that period.

#### **CONSUMPTION OF FOODSTUFFS**

In 2009, market conditions were less favourable to consumers than in the previous year. Demand increase stopped due to the relative increase in prices of food, deceleration of salary increase and an increase in prices of services necessary for existence which was 2.5 times higher than inflation. In the sector of households real gross disposable income was about 1.5% higher than in 2008. Monthly increase of food prices was close to that in the previous year and to inflation rate. Between December 2008 and December 2009 total retail prices of food and alcoholic beverages increased by 3.4%, against 3.2% in the previous year, with inflation of 3.5% and 3.3%, respectively. Food price increases were uneven in 2009. A considerable increase took place in the first half of 2009 (by 4.8%), while in the second half of the year prices decreased (by 1.3%). Total individual consumption increased by 2.3% (2008 - 5.9%), average salary increased by 2.1%, average old-age or disability pensions from the non-agricultural social insurance system increased by 4.3%, and pensions from the agricultural social insurance system increased by 1.9%. Registered unemployment rate was 11.9% or 2.4% higher than in 2008.

In December 2009, retail prices of food and non-alcoholic beverages increased by 3.3% as compared to December 2008 (prices of consumer goods and services increased on average by 3.5%), of which the prices of bread and cereal products by 1.8%, of beef by 2.2%, of poultry meat by 5.5%, of fish by 9.0%, of eggs by 5.8%, of edible fats by 5.8% and of fruit by 4.9%. Prices of milk decreased by 0.7% and of vegetables by 9.2%. Prices of sugar and non-alcoholic beverages increased by 1.3% and 4.2%, respectively.

According to CSO estimates, consumption of ce-

real products, fish, meat, pork fats, vegetables, sugar and butter decreased in households in 2009 as compared to the previous year. Consumption of poultry meat, domestic fruit including apples and dairy products increased. Consumption of beef, cured meat, oils, citrus fruits and confectionery stabilised. It is estimated that in 2009 balance meat and processed meat consumption amounted to 75.1 kg per citizen and was close to the level of the previous year (75.3 kg). With a considerable increase in poultry consumption (by 0.9%), pork consumption decreased by 1.7 kg per person. Consumption of beef increased as well (by 0.6 kg per person). The situation resulted from considerable decrease in slaughter pigs production and an increase in prices. This, in turn, resulted in significant increase in retail prices of meat and processed meat in 2009 (by 11.1%), including of pork by 2.2%, of beef by 11.4% and poultry by 5.5%. In processed meat group, the greatest price increases were posted by popular sausages and offal products (by 7.8-9.7%). Prices of high-quality cured meat and dry sausages increased by 4.4% and of poultry cured meat by 5.3%.

In 2009, the decreasing tendency in cereal and cereal product consumption continued. Only consumption of flours increased – by 2.4%. In 2009, total monthly consumption of cereal products amounted to 6.95 kg per citizen, as compared to 7.20 kg in 2008. The decreasing tendency in cereal product consumption results from their higher prices as well as changes in consumer preferences. In the structure of cereal products consumption, the significance of bread decreased and yielded to pastries, pasta and flour.

The consumption of milk together with milk intended for dairy products (excluding milk processed into butter) increased as compared to 2008 and reached 185 litres per citizen (an increase of 2%). It was due to the increase in consumption of maturing cheeses and cheese spreads (by 8.3%), yoghurts (by 4.3%) and curd (by 1.9%). Consumption of cream, creamer and milk drinks remained at the same level as in the previous year. Consumption of drinking milk decreased (by 3.6%), particularly of whole milk (by 4.8%).

Consumption of fruit in 2009 remained the same as in the previous year (55 kg/person). Consumption of vegetables increased slightly (by 0.3%). In the case of fruit, stabilisation of consumption was mainly the effect of a decrease in domestic prices following a plentiful harvest in 2008, and in the case of vegetable it was due to higher interest of consumers. Retail prices of fruit and vegetables increased in 2009 by an average of 4.3% and of vegetable products by 3.7%. Price increases were mainly due to poor harvest and low reserves of soil-grown vegetables in the previous year. In the structure of vegetable consumption, the share of cabbage and onions increased at the cost of

consumption of cauliflower vegetables, beet, tomatoes and carrots. Consumers were more interested in buying domestic vegetables than imported ones, as mirrored by the structure of consumption in 2009.

Considerable increase in the prices of eggs in 2009 (by 8.7%) maintained the decreasing consumption trend characteristic of the years 2006-2008. Consequently, balance consumption of eggs decreased by 1% as compared to the previous year and by 6% in comparison with it 2005. **Table 15.** 

It is predicted that in 2010 the growth rate of food prices would be lower than in 2009. Slower growth of food prices will be the result of low consumption growth and poor wage pressure. The scale of growth may also be limited by improvement of situation on the meat market and the appreciation tendency of the zloty. Increase in regulated prices connected with the increase in prices of energy and fuels as well as the difficult situation on the market of cereals and feed will result in increasing food prices.

## WHOLESALE MARKETS OF AGRICULTURAL PRODUCTS

Wholesale markets are an important link in the distribution system of agri-food products in Poland. They play an important role as a source of supply, especially for large urban agglomerations: almost 40% of total trade in fresh fruit and vegetables in Poland takes place on the wholesale markets. Other products offered on those markets include flowers, eggs and dairy products, meat, fish, preserves and flower accessories. More than ten years' experience of those entities proves that they do not only offer a wide selection of products, they are also a source of price information and a place where trainings, conferences and integration of agricultural producers take place. Their activity improves the quality of products and enables their adjustment to market requirements as they create requirements regarding the trade quality of products and indicate the directions of changes in demand, and as such play an educational role.

The currently operating wholesale markets were created under ministerial and governmental programmes of creation and development of wholesale markets – stage 1 and 2, with substantial support with public funds. There are also several entities financed with private or local governmental capital.

On a public forum, wholesale markets are represented by Polish Wholesale Market Association (Polish abbreviation: *SPRH*). Representatives of Polish wholesale markets are also members of the World Union of Wholesale Markets.

Websites of those entities offer information on products, prices and events on the wholesale mar-

kets. The addresses of wholesale markets are available from the website of the Ministry of Agriculture and Rural Development.

# PROVIDING AGRICULTURAL SECTOR WITH MEANS OF PRODUCTION

Consumption of natural fertilizers (NPK) for crops in 2009 amounted to 1,899.4 thousand tonnes and was lower by 242.6 thousand tonnes or 11.3% than in the preceding year. The decrease in use was observed in all groups of fertilizers: nitric (N) by 4.1%, phosphorous ( $P_2O_5$ ) by 18.8% and potassic ( $K_2O$ ) by 20.2%.

The entire Polish agriculture used 117.9 kg of NPK per 1 ha of farmland, of which 121.5 kg for farmland in good agricultural and environmental condition and 114.0 kg and 116.1 kg of NPK in individual holdings, respectively. The relation of N:P:K in fertilizers remained at last year's level, i.e. 1.0:0.3:0.4, which means that in overall consumption of natural fertilizers, expressed in pure component, nitrogen (N) constituted 57.7%, phosphorus ( $P_2O_3$ ) 19.8% and potassium ( $K_2O$ ) 22.5%.

The use of calcium fertilizers for crops in 2009 also decreased to 529.8 thousand tonnes of CaO or 32.9 kg per 1 ha of farmland and 33.9 kg per 1 ha of farmland in good agricultural and environmental condition, i.e. 15.0% less than in the previous year. That was historically the lowest level of calcium fertilization. Comparing the use of NPK and CaO it should be noted that domestic use of mineral fertilizers exceeded the use of calcium fertilizers over three times, and in certain voivodeships even by 17 times (e.g. Świętokrzyskie Voivodeship). Very low use of calcium fertilizers has an unfavourable impact on the structure of soil as it results in their acidifying. The trend is unfavourable, particularly in regions where increased nitric fertilization is applied to lower soil acidity, e.g. in Małopolskie, Podlaskie and Świetokrzyskie Voivodeships.

In Poland, mineral and calcium fertilizers are used by approx. 1,553 thousand farms or 64.2% of total farms with farmland in good agricultural and environmental condition. The majority of holdings used nitrogen fertilizers (88.9%), multicomponent fertilizers (60.9%), potassic fertilizers (4.7%) and phosphorus fertilizers (14.2%). The smallest number of farms – only 7.2% – used calcium fertilizers.

The average domestic use of mineral fertilizers in economic year 2008/2009 was 121.5 kg of NPK per 1 ha f farmland in good agricultural and environmental condition, yet the level of fertilizer use was visibly different in particular voivodeships: it was higher than

the national average in nine voivodeships and the level was the highest in the following voivodeships: Opolskie –187.6 kg, Kujawsko-Pomorskie – 177.1 kg, Dolnośląskie – 167.4 kg, Wielkopolskie – 156.4 kg. The lowest use of NPK was in Podkarpackie Voivodeship – 58.0 kg and Małopolskie Voivodeship – 64.3 kg.

Evaluation of fertilization level should also take into account organic fertilization that is a source of valuable nutrients for plants and enables sorbing (retaining) phosphorus and potassium in soil and their slow decomposition (four years and two years, respectively). Research carried out by CSO shows that in economic year 2008/09 about 1,001 thousand agricultural holdings used organic fertilizers, of which: 995.3 thousand holdings used solid manure, 274.1 thousand holdings used liquid manure and 47.9 thousand used slurry. The holdings under analysis used 54.7 million tonnes of solid manure which, expressed as per pure NPK enriched farmland in good agricultural and environmental condition with 47.3 kg of NPK per 1 ha and in individual holdings by 50.1 kg of NPK per 1 ha. Table 16.

Sales of plant protection products from domestic production and import in 2009 was 20.6 thousand tonnes of active substance and was approx 10.1% higher than in the previous year. Herbicides (53.1%) had the largest share in the structure of sales (in commodity mass), followed by fungicides and seed dressing agents (29.6%). When compared to the preceding year, there was an increase in sales in all groups of products, even though the average prices of plant protection products were 7.3% higher in 2008 (December 2009 to December 2008). The increase was the highest in the group of fungicides (by 13.6%), insecticides (by 7.2%) and herbicides (by 2.1%). Profitability of using plant protection products deteriorated in 2009, particularly in the case of wheat and potatoes. It is estimated that 5,100 companies throughout Poland trade in and package plant protection products.

At the end of February 2009, the number of plant protection products authorised for trade and use was 640, there were also 217 products whose registration expires but remained on the market until clearance or expiry. Among authorised products, the largest group comprised fungicides (35%), herbicides (40%), insecticides (13%) and growth hormones (5%).

Production and sale of most types of **agricultural machinery** had been slowly increasing in Poland in the recent years, yet according to initial estimates provided by CSO (GUS), 2009 saw a decrease in production of tractors by 43%, in production of the majority of agricultural machinery, including potato ploughs, by 59.3%, of field sowers by 47.6% and of mineral fertilizer sowers by 47%. The share of imports in domestic supply is considerable, but differing in terms

of machinery types. In the case of tractors with power up to 18 kWi and forage harvesters, import covered 100% of domestic demand. Demand for agricultural machinery is determined by progressing concentration and specialisation of production in agricultural holdings, changes in production technology, quantitative and qualitative condition of agricultural equipment, price relations and the economic situation in farming.

In 2009, prices of 35 agricultural machines and tools covered by IERiGŻ analysis increased by between 0.3% and 11.1% as compared to 2008, in annual average terms. **Table 17.** 

#### **ORGANIC FARMING**

Organic farming is a system of farming based on sustainable plant and animal production. Organic production combines the best environmental practice, high degree of biodiversity, protection of natural resources with keeping high standards of animal welfare and production methods which satisfy the requirements of consumers opting for products manufactured with the use of natural substances and natural processes. **Fig. 10.** 

The number of organic farms varies depending on the region. Most of them are located in south-east Poland where farms are small and family-run.

Organic farming is the most environmentally friendly method of agricultural production, enhancing soil fertility and preserving landscape diversity and biodiversity. In order to enhance biological activity and fertility of soil, crops are appropriately rotated; it is obligatory to plant soil-enriching crops such as papilionaceous plants.

In the recent years we have witnessed increasing interest in organic food production methods all over the world, particularly in the EU. The world's area of organic crops exceeds 35 million ha, 20% of which are located in the EU. Despite favourable conditions, Poland lags behind the EU average as regards the number and the area of organic farms.

The basic documents which provide for the rules of organic farming are: Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91 as well as Commission Regulation (EC) No 889/2008 of 5 September 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control. As compared to Council Regulation 2092/01, the Regulations extend the scope of organic production to include aquaculture. It is also planned to introduce



	2000/01	2005/06	2007/08	2008/09	2008/09 2007/08 =100
Mineral fertilizers NPK	90,8	123,3	132,6	117,9	88,8
of which: nitric N	50,3	62,5	70,7	68,0	96,2
phosphorus P <sub>2</sub> O <sub>5</sub>	17,9	27,7	28,8	23,3	80,9
potassic K <sub>2</sub> O	22,6	33,1	33,3	26,6	79,9
calcium fertilizers CaO	94,2	54,8	38,5	32,9	85,5

**Table 16.** Use of mineral and calcium fertilisers (in pure NPK per 1 ha of agricultural land); *Source: Agriculture in 2009, CSO Warsaw 2010.* 

	2005	2006	2008	2009
Seed for sowing, young trees, cuttings, others	95,4	110,1	103,0	89,9
Mineral, chemical and calcium fertilizers	107,9	100,4	138,4	107,1
Plant protection products	101,7	100,8	109,9	107,0
Farm animals and birds	107,6	102,9	104,1	103,5
Feed	90,4	99,1	114,5	94,0
Agricultural machinery and equipment	110,6	102,2	102,9	102,1
Construction materials	104,9	100,9	105,0	98,1
Fuels, oils, lubricants	107,7	99,6	107,2	97,4
Maintenance of agricultural and horticultural machinery	105,1	104,0	111,4	106,2
Veterinary services	102,3	101,4	103,1	102,9

**Table 17.** Changes in retail prices of means of agricultural production (previous year = 100); *Source: Agriculture in 2009, CSO.* 



#### tvs.zł 18000 17000 16000 15000 14000 13000 12000 11000 10000 9000 8000 7000 6000 5000 4000 3000 2000 1000 2003 2004 2005 2006 2007 2008 2009

**Fig. 10.** The number of organic farms inspected in Poland between 2003 and 2009

#### **AGRICULTURE**

detailed regulations on production of organic wine from grapes.

On the national level, organic farming is governed by the Act of 25 June 2009 *on organic farming*.

Control and certification of production are key elements of the organic production system, ensuring compliance of production with the provisions of Council Regulation (EC) No 834/2007 and Commission Regulation (EC) No 889/2008. Compliance certificates are recognised throughout in the European Union. The Polish control and certification system was established pursuant to the Act on organic farming. In 2009, there were 11 accredited certification bodies responsible for control and certification in the organic farming sector, namely:

#### EKOGWARANCJA PTRE Sp. z o. o.

21-008 Tomaszowice, Dąbrowica 185 P, No: PL-EKO-01 Tel: +48 81 501 68 30

#### PNG Sp. z o.o.

Jednostka Certyfikująca PNG w Zajączkowi

26-065 Piekoszów

No: PL-EKO-02, Tel.: +48 41 306 40 00

#### COBICO Sp. z o. o.

31-559 Kraków, ul. Grzegórzecka 77 No: PL-EKO-03, Tel.: +48 12 632 35 71

#### BIOEKSPERT Sp. z o. o.

00-621 Warszawa, ul. Boya Żeleńskiego 6/34 No: PL-EKO-04, Tel.: +48 22 825 10 78

#### BIOCERT MAŁOPOLSKA Sp. z o.o.

31-503 Kraków, ul. Lubicz 25 A No: PL-EKO-05, Tel.: +48 12 430 36 06

#### Polskie Centrum Badań i Certyfikacji S.A. Oddział Badań i Certyfikacji w Pile

64-920 Piła, ul. Śniadeckich 5 No: PL-EKO-06, Tel.: +48 67 213 87 00

#### AGRO BIO TEST Sp. z o. o.

02 – 787 Warszawa, ul. Nowoursynowska 166 No: PL-EKO-07, Tel.: +48 22 847 87 39

#### TÜV Rheinland Polska Sp. z o. o.

02-146 Warszawa, ul. 17 Stycznia 56 No: PL-EKO-08, Tel.: +48 22 846 79 99

#### Centrum Jakości AgroEko Sp. z o.o.

05-126 Nieporęt, ul. Baśki 2 No: PL-EKO-09, Tel.: +48 695 599 886

#### SGS Polska Sp. z o.o.

01-233 Warszawa, ul. Bema 83 No: PL-EKO-10, Tel.:+48 22 329 22 22

#### Control Union Poland Sp. z o.o.

70-535 Szczecin, ul. Wielka Odrzańska 31/2 No: PL-EKO-11, Tel.: +48 22 640 28 50

Financial support for organic farming in Poland is derived from two sources:

- 1) From the national budget, which co-finances the following:
- Organic agriculture research, including content analyses of substances prohibited in organic farming;
- Promotional activities for organic farming, including participation in national and international fairs;
- 2) From the national budget and the budget of the European Union:
- Under Rural Development Programme 2004-2006

   farmers received support in the form of subsidies related to the area of organic crops for the implementation of Measure "Support for agri-environmental actions and improving animal welfare,"
   "Organic farming" package;
- Under Rural Development Programme 2007-2013:
  - Agricultural producers receive aid under Measure: "Participation of farmers in food quality schemes;"
  - Groups of producers receive aid under Measure "Information and Promotion;"
  - Farmers receive aid related to land area in the form of subsidies for organic crops under Measure "Agri-Environmental Programme," "Organic farming" package.

Organic farming has been growing steadily in recent years in Poland, both in terms of the number of organic farms, the area of organic crops and the number of processing plants. In 2009, the control and certification system covered a total of 17,478 agricultural holdings (approx. 15% more than in 2008) whose total area was about 395 thousand ha, and 277 processing plants (an increase of ca. 16% as compared to 2008).

The agri-environmental conditions for development of organic farming are favourable in Poland as the use of chemical means of production in agriculture was always lower than in the majority of European countries and thus the eco-quality of production areas in agriculture, as well as its biodiversity, are among the best.

#### **Integrated agricultural production**

Integrated production (IP) is a farming system where plants are produced with the use of balanced technical and biological progress in the field of cultivation, protection of plants and fertilization, taking special account of the environment protection and

human health. Integrated production makes it possible to obtain crops of highest biological and nutritional value, which are safe for human health.

Integrated production in Poland is subject to the Act on plant protection of 18 December 2003 (Dz.U. of 2008, No 133, item 849, as amended) and to the Ordinance of the Minister of Agriculture and Rural Development of 26 July 2004 on integrated production (Dz.U. of 2004, No 178, item 1834, as amended).. The supervision and IP certification have been delegated to the Main Inspectorate of Plant Health and Seed Inspection.

On 14 June 2007, integrated production within the meaning of Article 5 (1) of the Act on plant protection was recognised as national food quality system by decision of the Minister of Agriculture and Rural Development.

Agricultural producers interested in obtaining the official IP certificate should notify the Voivodeship Plant Health and Seed Inspection about their intention to cultivate crops. Upon first application to participate in the IP system, a producer is registered and receives an individual number. The producer thus becomes obliged to apply methodology approved by the Main Plant Health and Seed Inspector, which is available on the website of the Inspectorate of Plant Health and Seed Inspection: <a href="http://www.piorin.gov.pl/">http://www.piorin.gov.pl/</a>. All activities related to IP farming have to be documented in the Integrated Production Notebook, the template for which is provided in the Ordinance on integrated production.

Before completing production, the producer applies for a certificate to the local inspection unit, competent for the crops location. The certificate is awarded when an inspection does not reveal any irregularities and the producer has filed the application for a certificate correctly, completed an IP training, carried out production according to the methodology approved by the Main Inspector, and has been correctly and regularly documenting the activities related to the integrated production in the Notebook. Producers who apply for the IP system are allowed to mark their products by a restricted IP logo and to have part of their incurred costs reimbursed from the financial support under RDP 2007-2013. The works on comprehensive EU regulations for plant protection products were completed in 2009. As a result, Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides was adopted, as well as three other acts regulating, inter alia, the rules of authorisation for plant protection products to be introduced on the market, specifying the equipment-related requirements and the rules for statistical research carried out on the sales and consumption of plant protection products Entry into force of these regulations makes it necessary to develop and implement in the Polish legislation new EU legal regulations from 2011, and, as a consequence, to change the current provisions in force, in particular the Act on plant protection which is currently the basis for the integrated production. Apart from the possibility to receive the RDP financial support and to raise the prices due to the IP quality system, the incentive to apply the IP system may be also the fact that requirements established in the Cross-Compliance system under the direct payments, which will be introduced in January 2011, are satisfied and that meeting the obligatory requirement to introduce integrated plant protection rules from 2013 is guaranteed.



# AGRICULTURE IN INDIVIDUAL REGIONS

Agricultural production is diversified in individual regions due to the soil quality, size of the holdings, type of land ownership, traditions and possibilities to sale agricultural products depending on the location of outlet markets (location of processing plants, urban agglomerations, state borders).

The wear and tear on industrial means of production is also diversified, which determines the intensity of agricultural production. The highest yields are obtained in the western and northern voivodeships of Poland, where holdings are relatively larger and fertilisation and plant protection are more intensive.

In eastern and southern regions of Poland yields are lower due to the fragmentation of agricultural land, less intensive fertilisation and subsistence farming in a significant number of agricultural holdings.

The production of certain plants is clearly concentrated. While cereals are generally cultivated in all voivodeship, for example buckwheat was planted in 2008 on the total area of 64.5 thousand ha, 26 thousand ha of which, i.e. 40% of the total crops, were located in Dolnośląskie and Lubelskie voivodeships.

Millet is grown mainly in the Świętokrzyskie voivodeship and its yield of 56 700 dt makes up almost 60% of the total yields in Poland. Grain maize

was mostly grown in Dolnośląskie, Wielkopolskie and Opolskie voivodeships, where the yields amounted to 562 thousand tonnes, i.e. 44.2% of the total yields.

Apart from family gardens, outdoor vegetables are grown mainly in 5 voivodeships: Mazowieckie, Lubelskie, Łódzkie, Małopolskie and Wielkopolskie, where total yield in 2008 constituted over 60% of the total yields in Poland..

Strawberries are grown mainly in Mazowieckie and Lubelskie voivodeships, where plantations cover 47% of the total area of Polish strawberry plantations and the yields amount to 48.3% of total yields. The largest quantities of tree fruit are picked in central and eastern regions of Poland (83.9% of the total national yields in 2008).

Concentration of farm animals production is also subject to regional differences. Traditionally, the largest bovine population is in Mazowieckie (18%), Podlaskie (14.5%) and Wielkopolskie (14.0%) voivodeships. The highest number of cows was also recorded in the above mentioned voivodeships and their share in total population of cows in Poland was 21.0%, 16.1% and 10.8%, respectively.

As compared to 2007, in December 2008 the bovine stock was the lowest in Małopolskie voivodeship (86.0% of the state of 2007), with total increase by 1.1%.. The bovine stock declined in 9 voivodeships and the biggest fall was registered in the Małopolskie voivodeship.

The largest stocks of pigs are in Wielkopolskie (29.9%), Kujawsko-Pomorskie (11.7%) and Mazowieckie (10.8%) voivodeships. According to the statistics from the end of March, the number of pigs in the country fell by 13% and in all voivodeships it was lower than the respective number in the previous year.

The criterion used to measure cattle and pig breeding intensity is the stocking density per 100 ha of utilised agricultural area. Fig. 11, fig. 12.

## RENEWABLE ENERGY SOURCES AND BIOFUELS

In March 2007 European Council made a decision that until 2020 European Union:

- would decrease greenhouse gas emission by 20% compared to the emission level of 1990,
- would increase the share of renewable energy sources in the final energy consumption by 20%,
- would improve energy efficiency by 20% (reduction of primary energy consumption),
- would reach 10% share of biofuels in the total consumption transport fuels in 2020.
- ▶ The European Council, setting the 3x20 objectives, adopted guidelines for their implementation:

- a diversified, fair and transparent approach, taking account of national determinants, is needed in terms of the Member States' contribution to the reduction of the greenhouse gas emission,
- the objectives should be met with regard to fair distribution of efforts and profits among Member States, according to their diversified conditions,
- due to the significance of the energy intensive industry sectors, measures adopted should improve both their competitiveness and reduce the impact on the environment.

Thus, the Council of Ministers adopted *Polish Energy Policy until 2030* assuming the following basic objectives:

- improvement of the energy efficiency,
- improvement of the energy security,
- development of use of renewable sources of energy including bio-fuels,
- development of competitive fuel and energy markets.
- reduction of the energy impact on the environment.

National agriculture with a large potential of production of energy raw materials can considerably contribute to the achievement of the above objectives. According to the estimates of the Ministry of Agriculture and Rural Development, approximately 2 million ha of utilised agricultural area can be allocated for energy purposes. Considerable amounts of by-products and remains from agricultural production carried out on other utilised agricultural areas as well as remains from the agri-food industry, which will be described below, are also potential sources of energy. **Table 19.** 

The above table reflects current and potential need for the use of utilised agricultural areas for energy purposes. The use of available utilised agricultural areas for energy crops will be determined mainly by the needs of, among others, professional energy sector, which is obliged to cover statutory shares of renewable energy in the production balance

#### **Biofuels**

Basic biocomponents used in liquid fuels and liquid biofuels are bioethanol and esters of the rape-seed oil. Currently more and more biocomponents produced from national agricultural raw materials are used to meet the National Index Target. The market is developing gradually, although the pace is not as fast as it would be expected by agricultural producers and biocomponent producers.

The development of this market is one of the key elements of the European Union climate policy. Pur-

	Yields of ce- reals	Yields of po- tatoes	expressed i	otion of fertilizers essed in pure omponent	
	from 1 ha in dt	from 1 ha in dt	Mineral or chemical fertilizers in thousand t	Calcium fertilizers in thousand t	
Poland	34,8	191	1899,4	529,8	
Dolnośląskie	41,8	204	151,3	54,3	
Kujawsko-Pomorskie	38,0	202	190,8	42,3	
Lubelskie	30,3	189	155,3	31,0	
Lubuskie	37,1	191	60,2	18,2	
Łódzkie	31,4	210	131,9	25,5	
Małopolskie	31,8	181	42,9	4,8	
Mazowieckie	27,8	166	202,3	35,1	
Opolskie	49,0	215	104,6	55,9	
Podkarpackie	31,2	178	41,4	11,5	
Podlaskie	27,0	161	107,0	15,2	
Pomorskie	35,9	228	99,7	28,9	
Śląskie	34,9	209	48,2	11,0	
Świętokrzyskie	28,6	173	48,0	2,8	
Warmińsko-mazurskie	35,4	175	120,7	47,9	
Wielkopolskie	39,9	226	279,5	85,6	
Zachodniopomorskie	41,2	227	115,6	59,8	

**Table 18.** Yields of cereals and potatoes compared with the intensity of mineral and organic fertilisation; *Source: Agriculture in 2009r, CSO.* 

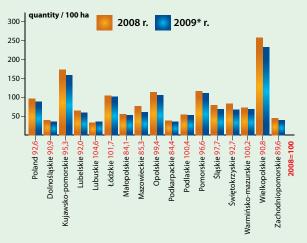
Specification	Use in 2009 [thousand ha]	Forecasted target use [thousand ha]
Total utilised agricultural area satisfying the needs of the biofuels market (rape + cereal)	520	1300
Cereals for the production of bio- ethanol - area taken into account in the total crops	120	500
Rape for the production of esters – area taken into account in the total rape crop	400	800
Target energy crops - current situation and estimates	10	700 i więcej
Total current and forecasted use of arable land for energy purposes	10 /530	700 /2000

**Table 19.** The use of and forecasted demand for utilised agricultural area; *Source: Own calculations of MARD based on data from CSO* 

quantity / 100 ha of which cows 2008 r. 70 2009\* r. 60 50 40 30 25 20 15 10 Warmińsko-mazurskie 103,0 Zachodniopomorskie 90,2 Wielkopolskie 90, Cows - 2009/2008=

\*Stock of cattle and cows based on data from June

**Fig. 11.** Stock of cattle, cows per 100 ha of UAA in particular voivodeships in 2009 <sup>1/</sup> (number of animals); *Source: Agriculture in 2009 GUS* 



\*Stock of pigs based on data from March

**Fig. 12.** Stock of pigs per 100 ha of UAA in particular voivodeships in 2009 <sup>1/</sup> (number of animals); *Source: Agriculture in 2009 GUS* 

suant to the Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, Member States, including Poland, are obliged, as it was mentioned above, to introduce regulations by 2020 according to which the share of energy from renewable sources in transport would be 10 %. The Minister of Economy is responsible for implementation of this policy, but it also requires close cooperation and joining efforts with the agricultural sector. That is because the agricultural sector is the source of raw materials for the production of biocomponents and biofuels.

The market of biofuels and biocomponents is regulated by the Act of 25 August 2006 on biocomponents and liquid biofuels. According to this Act, a Long term programme for promotion of biofuels or other renewable fuels for 2009-1014 (Wieloletni program promocji biopaliw lub innych paliw odnawialnych na lata 2008-2014) was adopted by the Council of Ministers on 24 July 2007. The Programme provides for a range of mechanisms supporting the development of the biofuels market. The Act on biocomponents and liquid biofuels is being currently amended in order to introduce new instruments supporting this market. **Table 20.** 

The agricultural department estimates that in order to meet the targets set by the European Union for 2020 it will be necessary to secure almost 2 million tonnes of cereals (900 thousand ha with the estimated yield of 2.66 t/ha) and about 2.4 million tonnes of rape (800 thousand ha with the estimated yield of 3.08).

#### **Biogas**

Agricultural production may be an important source of raw materials for the production of renewable energy. Having regard to the main objective of the agriculture, i.e. satisfying the demand for food, the Minister of Agriculture and Rural Development pays special attention to the use of the following products in the first place for energy-related purposes:

- by-products and remains from agricultural production:
- by-products and remains from the agri-food industry:
- liquid and solid animal excrements;
- energy crops.

The most effective method to use these substrates is to subject them to methane fermentation in agricultural biogas plants.

The generation of power from agricultural biogas

can result in many advantages for, among others, rural areas, such as:

- improvement of energy security,
- making a considerable part of the gas and electric power delivery dependent on numerous local biogas production plants,
- implementation of international commitments, specified under the adopted environment and climate-related targets, based on local available raw materials,
- generating significant amount of power from raw materials not competing with the food market, such as: agricultural by-products, liquid and solid animal excrements and remains from the agri-food industry, not requiring thermal processing or utilisation,
- increase in agricultural income as a result of using products that in most cases have not been regarded as goods so far and as a result of sales of energy surplus.
- obtaining environment-friendly fermentation waste that can be used in agriculture,
- using organic remains and waste emitting greenhouse gas to the environment as a result of uncontrolled decomposition for energy purposes.

According to the research of the Institute of Construction, Mechanisation and Electrification of Agriculture (at present – Institute of Technology and Life Sciences), the actual available potential of raw materials for biogas production, hidden in agricultural by-products and waste from agri-food industry, is per annum:

- about 1 540 million m³ from agricultural byproducts:
- ▶ about 100 million m³ from agri-food processing by-products.

Permanent grassland can also be a significant source of raw material for biogas production. The Institute for Reclamation and Grassland Farming estimates that permanent grassland may provide at least 2 300 thousand tonnes of grass to be used for energy purposes each year. Such amounts would be obtained provided that these crops are not fertilised, based on the natural fertility of the soil and the biomass acquired for energy purposes is used without detriment to the production of animal feed. Resources of energy contained in the turf of permanent grassland and the possibilities to produce biogas from them are therefore significant (about 1.1 - 1.7 billion m³/year in total).

Animal excrements are also an important raw material for biogas production. It is estimated that 35-38 million m<sup>3</sup> of slurry is produced annually in Polish agricultural holdings, at least 20% of which could be

Demand for:	2008	2010	2020
Bioethanol [thousand m³]	288,77	463,37	805,75
Cereals (80% share) [thousand tonnes]	688,24	1 112,09	1 933,80
Esters (total use of diesel oil [thousand m³]	356,16	648,46	1 127,76
Rape (75% of needs) [thousand tonnes]	747,94	1 361,77	2 368,30

**Table 20.** Forecasted demand for agricultural raw materials for the production of biocomponents; *Source: calculations and data -MARD* 

pə	ogas	silage makes up 100% of the substrate		silage makes up 70% of the substra- te, the remaining 30% is slurry				
Power installed [kWe]	d for bic [m³]	dem for s	nand ilage	dem for si		dema slu	nd for rry	
Power	Demand for biogas [m³]	tonnes	ha	tonnes	ha	tonnes	LU (live- stock units)	
1000	3650000	21000	440	14700	308	40556	1763	
500	1825000	10500	220	7350	154	20278	882	
300	1095000	6300	132	4410	92	12167	529	
200	730000	4200	88	2940	62	8111	353	
100	365000	2100	44	1470	30	4056	176	
50	182500	1050	22	735	15	2028	88	
30	110606	636	13	445	9	1229	53	
20	73000	420	8	294	6	811	35	
10	36500	210	4	147	3	406	18	
5	18250	105	2	74	1	203	9	

**Table 21.** Demand for a substrate for agricultural biogas plant depending on the ratio of silage to slurry (demand for the area of crop and the number of livestock units)

Source: Calculations of MARD on the basis of exploitation data (L. Ciurzyński) and Institute of Construction, Mechanisation and Electrification of Agriculture

Specification	1995	2000	2005	2006	2008 4th Quarter	2009 4th Quarter
Total economic activity coefficient	58,4	56,4	54,9	54,0	54,7	55,1
Urban areas		55,8	54,2	53,5	54,5	54,5
Rural areas	60,5	57,5	56,0	54,9	54,5	55,2
Total employment rate	50,7	47,4	45,2	46,5	51,0	51,0
Urban areas	49,3	46,3	44,1	45,8	50,7	50,3
Rural areas	53,1	49,3	47,0	47,8	51,5	50,6

**Table 22.** Economic activity of people aged 15 and older (%); Source: Statistical Bulletin 2010 CSO.

Specification	2002	2005	2006	2008 IV kwartał	2009 IV kwartał
Stopa bezrobocia	19,7	17,7	13,8	6,7	8,5
- miasta	21,3	18,7	14,4	6,9	8,6
- wieś	17,2	16,1	13,0	6,4	8,2

**Table 23.** Unemployment rate based on BAEL (% of economically active population); *Source: Statistical Bulletin 2010 - GUS.* 

Specification	Agricultural qualifications in %	Rate of inten- sity of direct support	Rate of intensity of support for human capital
UE – 15	21,8	2,0	6,5
UE – 27	20,0	2,1	6,0
Poland	38,5	2,2	17,0

**Table 24.** Human capital in agriculture and rate of intensity of support for agriculture (\* The rate covers agricultural holding managers with complete agricultural training); Source: Uwarunkowania społeczne w rozwoju obszarów wiejskich po akcesji do UE – Synteza badań 2005-2009 (Social determinants of rural development after accession to the EU. Research synthesis) IERIGŻ – PIB (National Research Institute of Agricultural and Food Economics)

used for biogas production. Manure is also a good substrate.

Energy potential of the national agriculture is therefore quite big and ultimately, after complementing it with production from special crops, without detriment for food production, it provides raw materials (substrates) necessary to produce annually about 5-6 billion  $m^3$  of biogas as clean as methane-rich natural gas. **Table 21.** 

The table presents information on the demand for silage and area necessary for its production, as well as demand for slurry and the number of animals necessary to generate it. A biogas plant operating according to the 70÷30 substrate model (70% silage, 30% slurry) with 110 kW electric power requires 31 ha of utilised agricultural area only for the production of silage, additionally to the necessity to meet the feed demand of animals (176 livestock units) producing excrements that can be used in the plant. Only such an amount of the substrate would ensure production adequate to the power of the plant, which is 365 thousand m<sup>3</sup> of agricultural biogas. Information directed to potential investors highlights the advantages of using biomass of agricultural origin, resulting from its composition, which is safe for the environment and for the health of people and animals.

#### **RURAL AREAS**

#### **General description of rural areas**

Rural areas cover over 93.2% of the area of Poland and are populated by 14.8 million people, i.e. 38.8% of the country's population. The area per person is 0.82 ha - 0.09 ha per person in the cities and 1.97 ha in the countryside.

There are 53 thousand villages with an average population of 278 people. The voivodeships with the most densely populations are: Małopolskie (844 people per village), Podkarpackie (746 people) and Śląskie (767 people). The voivodeships with the least populated villages are: Podlaskie (124 people per village), Warmińsko-Mazurskie (151 people), Zachodniopomorskie (171 people) and Łódzkie (181 people). The dispersed settlement, as well as a small number of inhabitants per village hinder the development of rural areas, increase the costs of infrastructure and frequently make it impossible to undertake non-agricultural activities. In recent years, a rapid decrease in the number of people earning their living in agriculture has been observed. Rural inhabitants earn their income from many sources, mainly from paid employment. People living on old-age and disability pensions, especially in households with an agricultural holding user, constitute a significant share of the population.

Due to the natural and environmental values of rural areas, rural tourism and agri-tourism are developing and an increasing number of people working in the cities or at homes tend to move to the countryside. The role of the Internet has grown since it makes it possible to perform a range of works at home.

The development of tourism and agri-tourism, as well as starting non-agricultural activities, is supported from public funds under the EU-subsidised programmes.

#### **Rural population**

Since 2001, the population in rural areas has been growing and by the end of 2008 reached the level of 14 847.7 thousand people, i.e. by 1.0% (49 thousand people) more than in 2007 and by 264 thousand more than in 2000. Women represented 50.3% of the rural population; although in cities the percentage of women was higher – 52.6%.

In Poland there are 122 people per 1 km2: 109 in cities and 51 in rural areas. Urban population is older than rural population; the average age of people living in cities is 38.5 years, whereas in the countryside it is 35.5.

People of pre-working age (under 18) constituted 22.6 of rural population and 17.7% of urban population

According to the forecasts of GUS concerning the number of people living in rural areas, it will slightly decrease by 2035. It will result from the falling number of births accompanied by a positive balance of internal migrations. Migrations are often caused by a better use of work in agriculture, and they decrease the agricultural overpopulation. Migrations however are connected with the risk related to the selective nature of this mechanism. Migration decisions are usually taken by young, well educated and entrepreneurial people. It can be expected however, that part of these people would come back with higher qualifications, better experience and financial resources. Such tendency can be favourable for the living conditions in rural areas or can increase investments in agricultural holdings.

# **Economic activity and human** capital in rural areas

Economic activity of people aged 15 and older, as well as the employment rate in the rural areas are higher than in cities. In the survey conducted by the Central Statistical Office (GUS), entitled "Badanie Aktywności Ekonomicznej Ludności" ("Survey of Economic Activity of the Population") (BAEL), the basic criterion for regarding an individual economically active was the duration of employment during the reference period, taking into account sickness, leaves, breaks in economic activity or periods of unemployment or active search for employment. **Table 22.** 

Higher economic activity and employment rate in rural areas results from the fact that the interviewees were declaring work even in the amount of 1 hour during the week of survey, which meets the criterion of regarding them as economically active and employed.

According to the BAEL survey, unemployment in rural areas is lower than in cities and it shows a downward tendency, similarly to the urban areas. **Table 23.** 

The unemployment is growing in all the groups and age categories. In 2009 unemployment in the economically active group rose from 7.8% in the 1<sup>st</sup> quarter to 8.2 in the 4<sup>th</sup> quarter in the countryside (and from 8.5 to 8.6% in the cities). The unemployment rate according to BAEL was 10.6% in the 1<sup>st</sup> quarter of 2010, and it increased by 2.1% during the quarter and by 2.3 during the year. This rate was higher in the city (10.7%) than in the countryside (10.4%). Unemployment rate among women (10.7%) was still higher that the rate among men (10.6%) both in rural and urban areas. Since the end of the 1<sup>st</sup> quarter of 2010,

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	Water pipelines network		Sewage network (collective)		
Voivodeship	Total as of 31.12.2009	Percent of water pipelines provision	Total as of 31.12.2009	Percent of sewage system provision	
POLAND	216828,04	71,5	54136,30	20,8	
dolnośląskie	10718,07	67,7	3797,43	23,3	
kujawsko-po- morskie	19225,17	72,7	3421,95	19,5	
lubelskie	16572,82	69,1	1883,93	9,9	
lubuskie	4749,40	70,2	2222,43	20,9	
łódzkie	17923,26	86,5	1649,83	12,8	
małopolskie	13693,91	62,3	5489,60	22,0	
mazowieckie	31879,64	73,9	3847,42	15,8	
opolskie	6067,72	72,2	1709,54	22,5	
podkarpackie	11418,51	62,9	9053,23	37,9	
podlaskie	10361,49	72,5	1035,34	14,1	
pomorskie	10019,98	70,4	3978,20	31,5	
śląskie	9860,94	72,5	3020,91	21,4	
świętokrzyskie	10653,37	76,4	1790,81	14,5	
warmińsko-ma- zurskie	12154,17	59,4	2908,08	17,9	
wielkopolskie	24553,96	85,0	5171,35	26,5	
zachodniopo- morskie	6975,63	59,9	3156,25	24,9	

**Tab 25.** The state of water pipeline and sewage networks and rates of water pipelines and sewers provision broken down by voivodeships; Source: department report RRW-2 – report on implementation of the project concerning water pipelines and sanitation of rural areas in 2009.

Specification	Urban	areas	Rural areas	
Specification	2005	2007	2005	2007
Internet users	49,6	59,7	29,5	39,3
- in the last 3 months	42,0	51,7	23,3	31,2
Number of people who have never used Internet	50,4	40,3	70,5	60,7

**Table 26.** Internet users according to their place of residence in 2005-2007 (in %); *Source: IERIGŽ-PIB (The National Research Institute of Agricultural and Food Economics)* 

Specification	Year	Total	including those employ- ing up to 9 employees
POLAND	2003	3581593	95,22%
	2008	3757093	94,97%
	Dynamics	104,90%	-
Urban areas	2003	2732248	95,19%
	2008	2828613	94,97%
	Dynamics	103,53%	-
Rural areas	2003	849345	95,30%
	2008	928480	94,99%
	Dynamics	109,32%	-

**Table 27.** Entities of the national economy registered in the REGON register; *Source: own calculations on the basis o of CSO data "Characteristics of rural areas in 2008"* 

i.e. since march this year, the unemployment rate has been tending to fall, although it is still higher than the year before.

The agriculture of EU Member States is diversified with regard to qualification and the age structure of the employees. The analysis of the intensity of support for financial activities from EAFRD indicates that the funds allocated for the instruments of support for human capital in agriculture are relatively small. In 2007-2013 an average support for human capital measured in all the EU states is slightly less than 7% and direct support is even smaller – 2%. Poland definitely has the highest support for human capital, as it allocates 17% of the funds for this purpose. The new Member States allocate the same amount of funds as the EU 15 states for activities enhancing human capital. The average rate of intensity of support for human capital is in both cases 6%. **Table 24**.

Among new EU members, Lithuania and Cyprus spend a relatively large share of funds from EAFRD for human capital (12 and 9% respectively). In Lithuania it results from problems related to the agricultural population ageing and unfavourable aerial population, while in Cyprus the funds are allocated for structural pensions and support for young farmers (as in Poland).

#### **Rural infrastructure**

Rural areas are characterised by lower availability of basic technical infrastructure facilities and simultaneously by rapidly increasing funds allocated for this purpose.

An appropriate level of basic technical infrastructure in rural areas is definitely very important, and simultaneously, due to its specific character, it is not obtainable easily. That is because the rural infrastructure, as opposed to urban infrastructure, is:

- poorly concentrated,
- not intensive,
- often non-continuous in respect of area,
- ▶ capital-intensive (due to long distances),
- not very integrated.

In the end of 2009 there were 216 828.04 km of water pipelines, 3 565.08 km of which were built in 2009. The sewage system was 54 136.30 km long, and in 2009 additional 2 535.68 km were built. The longest water pipeline system is in the Mazowieckie voivodeship (31 879,64 km), and the shortest is in the Lubuskie voivodeship (4 748.40 km). The Podkarpackie voivodeship has the longest sewage system, i.e. 9 053.23, while in the Podlaskie voivodeship sewers are only 1 035.34 km long.

Taking account of the various sizes of voivodeships in Poland and regional environmental determinants, the length of water pipelines and sewers does not make it possible to establish unanimously to what extent the existing infrastructure meets the needs of rural population. The indexes (degrees) of water pipelines and sewers provision in rural areas are definitely a better way to present the current situation.

The rate of water supply system provision, calculated as a ratio of water pipeline connections to the total number of households, expressed in %, was 71.5%, while the rate of water supply system provision, expressed as a ratio of house drains to the number of households was in total 20.8%. **Tab 25.** 

The above data indicate that only two voivodeships (Łódzkie and Wielkopolskie) have a rate of water pipelines provision over 80%, while in two other voivodeships the rate is below 60% (Warmińsko-Mazurskie and Zachodniopomorskie). The situation regarding access to the sewage infrastructure is much worse. The highest rate of sewage system provision is only 37.9% (Podkarpackie voivodeship), while in most voivodeships the rate is below 20%, and in Lubelskie voivodeship it is only 9.9%.

The presented data reflect the evident disproportion between the availability of collective water pipelines and the availability of sewage system. This situation is caused among others by the fact that the development of water pipelines networks is a more urgent need of rural population. Investment projects concerning sewage system and sewage treatment plants require greater expenditures and are regarded by part of the local population as additional financial burden and not a way to raise the living standard and reduce the environment degradation.

Individual sewage treatment systems complement the collective sewage systems. At the end of 2009 there were 46 972 individual rural sewage treatment plants in Poland.

In 2004-2006 the development of rural infrastructure received support under EU programmes implemented by the Ministry of Regional Development. A measure entitled "Development and improvement of technical infrastructure in agriculture" was implemented however under the Sectoral Operational Programme "Restructuring and modernization of the food sector and rural development 2004-2006", carried out by the Minister of Agriculture and Rural Development. The support was granted for projects implemented in agricultural holdings, covering construction or renovation combined with the modernisation of: internal roads, water supply facilities, sewage disposal and treatment facilities, power supply networks and facilities.

Rural Development Programme 2007-2013, as a part of the measure entitled *Basic services for the* 

economy and rural population provides for financing of up to 75% of eligible costs of projects in respect of:

- water supply and wastewater management, in particular water supply and wastewater disposal and treatment, including network sewage systems or farmstead sewage systems,
- establishment of municipal waste collection, segregation and disposal system,
- production or distribution of renewable energy, including energy from the wind, water, geothermal energy, sun, biogas or biomass.

The needs to develop infrastructure in rural areas are large. The development of IT infrastructure is one of the elements requiring support. **Table 26.** 

Progress in the development of road, water supply and waste water infrastructure which has been made since 2005 is significant; however, it is still inappropriate to the needs and requires intensified activity and involvement of local governments.

### **Development of economic activity and agri-tourism in rural areas**

Countryside is traditionally associated with agriculture, it is regarded as a place of food production and work of rural inhabitants in agricultural holdings. Today, however, it is becoming more and more important as a place to live and carry out non-agricultural activity.

Compared to 2003, the number of economic entities in rural areas, excluding persons running individual agricultural holdings, rose by the end of 2008 by 9.3%. According to the data of the Central Statistical Office, as of 31 December 2008 there were 928.5 thousand entities of the national economy carrying out economic activities in rural areas, which accounted for 24.7% of total entities registered in the REGON register. A vast majority of them (about 95%) were natural persons employing less than 9 people. **Table 27.** 

The spatial analysis of entities of the national economy carrying out activities in rural areas shows considerable disproportions on the level of the entire country. The biggest numbers of entities registered in the REGON register were in Mazowieckie (13.6%), Wielkopolskie (11.6%) and Małopolskie (11.0%) voivodeships. A lower rate of registered entities was reported in Podlaskie (2.5)%), Lubuskie (2.6%), Warmińsko-Mazurskie (3.2%) and Opolskie (3.3%) voivodeships.

Entities providing services are prevailing among economic entities in rural areas. In the end of 2008 there were 607.3 thousand economic entities carrying out this kind of activities in rural areas, which ac-



Specification	Total	agricu hunting, and fisl	forestry heries inclu-	building	<b>Serv</b> i	ices
Sp		totai	ding		market	-market
POLAND	3757093	95608	93613	804181	2558387	298804
Urban areas	2828613	29547	28331	549027	2021299	228635
Rural areas	928480	66061	65282	255154	537088	70169
	100%	7,1%	7,0%	27,5%	57,8%	7,6%

**Table 28.** Structure of entities of national economy registered in the REGON register, according to the kind of activities; Source: own calculations on the basis of the data of CSO "Characteristics of rural areas in 2008"

### **RURAL AREAS**

counted for 65.4% of all entities in the countryside. With regard to the number of entities, industry and building were the next kinds of activities, and the share of entities registered in this sector was 27.5%. Still, only 7.1% of all entities in rural areas were carrying out activities in the area of agriculture, hunting and fisheries. **Table 28.** 

The above classification of entities of national economy can be specified in further detail on the basis of sections of the Polish Classification of Activities 2004. In 2008 65.5% of all entities in rural areas carried out economic activities in the following fields: trade and repairs (29.3%), building industry (15.2%), industry (12.3%) and real estate services and services for companies (8.6%). These fields were also prevailing in the structure of rural economic entities on the level of voivodeship. The share of economic entities in particular fields is presented in the fig. No. 13.

In 2008 there were 91.6% new entities carrying out activities in rural areas registered in the REGON register, which accounted for 28.8% of newly registered entities in the country, and this number was by 39.5% higher than in 2003.

The growing significance of non-agricultural activities in rural areas is also proved by the fact that in 2007 there were 115.2 thousand agricultural holdings carrying out non-agricultural activities, which was 4.8% of all holdings carrying out agricultural activities. A characteristic feature of economic activities carried out in the countryside are small, so called "family-owned" enterprises, aiming to meet local needs. Among the holdings in question, 3.7% carried out more than one kind of non-agricultural activity. The most popular kinds of non-agricultural activities are presented in fig. No. 14.

There are numerous actions under the rural development policy aimed at the development of entrepreneurship, among others in the area of qualifications improvement, facilitating access to the labour market and financial support. Under the Rural Development Programme 2007-2013 (RDP 2007-2013) there are three measures aimed the development of entrepreneurship: Increasing added value of forestry and agricultural production, Diversification of nonagricultural activities and Establishment and development of micro-enterprises. The aggregate value of funds allocated for the support of entrepreneurship under RDP 2007-2013 is over EUR 2.46 billion.

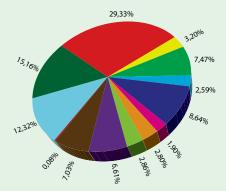
Since 1990 agri-tourism has been dynamically developing in Poland. It is a form of leisure organised in rural areas, based on accommodation and activities related to agricultural holdings. It is estimated that agri-tourist services are rendered in approximately 10 200 facilities which offer 98 100 accommodations places. The biggest number of agri-tourist lodgings is

### **RURAL AREAS**

in areas of rich tourist values. Due to the rich cultural and environmental heritage, Małopolskie and Podkarpackie voivodeships are the most popular tourist destinations and include, respectively, 20% and 10% of all agri-tourist accommodation places. Warmińsko-Mazurskie voivodeship – the Masurian Lake District – and Podlaskie voivodeship with the Białowieża Forest are also popular.

The rich agri-tourism offer is available on the websites of agri-tourism associations and agricultural advisory centres. This type of leisure is also promoted on numerous local and regional outdoor events such as fairs or festivities. The biggest event of this kind is AGROTRAVEL International Fair of Rural Tourism and Agrotourism, held each year in April in Kielce.

Rural tourism expands its offer, which is adjusted to the needs of wide scope of customers. It is enhanced by the development of brand products of rural tourism (supported by numerous institutions and voivodeship local governments) and the development of traditional and regional products.



Trade and repairs

Transport, warehouse management and communications

Financial agency services

Services for companies and real-estate-related services Public administration and national defence, obligatory social and health insurance Health protection

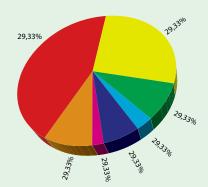
Municipality, social and individual services, other

Agriculture, hunting and forestry Fishing

Industry

**Building industry** 

**Fig, 13.** Structure of entities of national economy registered in the REGON register, according to the field of Polish Classification of Activities 2004; *Source: Data of CSO "Characteristics of rural areas in 2008"*.



Services with the use of the service provider's own equipment

Agri-tourism, renting rooms and others Processing of agricultural products

Wood processing

#### Handicraft

Aquaculture (cultivation of plants and breeding animals in water environment)

Other activities (including fur animals breeding)

**Fig. 14.** Agricultural holdings earning revenues from non-agricultural activities. *Source: Data of GUS: "Characteristics of agricultural holdings in 2007"* 

# PROMOTION ACTIVITIES AND QUALITY SUPPORT POLICY

## THE DISCOVER GREAT FOOD PROGRAMME

### **Promotion**

Support for information and promotion activities on the market of selected agricultural products - Agricultural Market Agency has been charged with managing these mechanisms. This system provides opportunities to obtain considerable funds that would help entrepreneurs be more competitive on the world market. The purpose of these actions is also to consolidate the image of the unique Polish products in the minds of customers. Agricultural products can be promoted under this mechanism both on the internal EU market and on external markets. As a part of actions carried out in 2009, the Agency participated in the implementation of continued, as well as newly started programmes: "Organic farming", "Meat and meat products - tradition and taste", "Table full of tastes", "Life sweetened with honey", "I count on milk and milk products", "Fruits and vegetables 5 times a day". (Detailed information on expenditures is provided in the chapter on the Agricultural Market Agency).

Pursuant to the Act on the establishment of agrifood products promotion funds, the following 9 individual promotion funds were established on 1 July 2009 for milk, pork, beef, horsemeat, sheep meat, poultry, cereals and cereal products, fruits and vegetables and fish. Actions carried out under these funds are to stimulate the growth of consumption and promotion of agri-food products both on national and foreign markets. Specific promotion funds are supported by charges calculated and collected from entities selling goods. Organisation managing the promotion funds is the Agricultural Market Agency (more information in the chapter on the Agricultural Market Agency)

Agricultural Market Agency accepts and considers applications concerning the promotion of products made according to high quality food systems, such as: organic products, integrated products, products manufactured according to the "Quality Tradition" system, as well as registered as traditional specialty guaranteed, protected designation of origin and protected geographical indication. Under the above actions beneficiaries may apply for reimbursement of up to 70% of costs incurred for promotion campaigns.

### Quality

The quality of a product has become an important distinctive feature on the competitive world market. Food products are however the kind of goods whose quality is of chain-type nature, which means that each link of the food chain has an impact on the quality of the final product. Obtaining a final product of good quality is therefore not possible without maintaining this quality on each stage of production, processing or distribution of food. The quality of food is not only a marketing-related distinctive feature, but mainly an integral element of the food safety evaluation, combining aspects of health safety and public health. To ensure the safety of food it is necessary not only to implement food legislation, but also to actively control its observance along the entire food chain - from farm to fork. The intensification of food production, resulting from the rapidly growing demand, combined with higher health consciousness results in the need to adjust the food safety standards. This process is continuous, since food products have to meet growing expectations of the consumer. They concern, to an equal extent, commercial, price and sensory attractiveness of the products, as well as their health safety. It has been proved by research on consumers' preferences carried out by various organisations. The research indicates that the preferred products are those attractive in respect of their sensory features, but also those with particular health-related values. However, the consumers do not see the real possibility to influence the quality of the food they eat. Such situation indicates that it is necessary to undertake educational actions informing the consumers of their rights, and making producers and distributors aware of their responsibility of the quality and safety of food they introduce on the market. Marking out producers and food products characterised by proven, high quality standards and informing consumers about it may be one of the ways of motivating for participation in various programmes of high quality food promotion. Programmes implementing these goals are carried out in many countries, and also in the European Union. There are about 400 such programmes in the European Union. In Poland there is also a range of possibilities to provide the consumer with information that a given product meets stricter quality requirements, confirmed by independent bodies or control organisations. The public quality standards for food quality in Poland are: the Discover Great Food programme, Integrated Production, the O Quality Certificate and the mark of compliance with the Polish Standard.

### **Discover Great Food Programme**

The programme introduced by the Minister of Agriculture and Rural Development entitled "Discover Great Food" has been in operation since 1 may 2004, promoting and stimulating the growth of quality and

### PROMOTION ACTIVITIES AND QUALITY SUPPORT POLICY

diversification of food in Poland and in the entire territory of the Common Market. In this respect it can be regarded as a part of the European Union's quality policy. The Discover Great Food mark guarantees the highest quality of products and raw materials from a proven source. The main purpose of the programme is to promote food of high quality, confirmed by a certificate. The Discover Great Food programme also helps the consumers to consciously select food products, enhances confidence in products of high and stable quality as well as promotes healthy life style. The programme also encourages entrepreneurs to produce good products of unique quality and makes them aware that quality is worth investing in.

### The **Discover Great Food** Programme is

- unlimited as regards the number of granted marks and the deadline for submitting applications;
- voluntary;
- free of charge;
- open for all the producers operating on the European Union market regardless of the size and type of ownership.

The Discover Great Food mark is assigned to those products which comply with the highest criteria set by the Scientific Committee for the Quality of Food Products operating under the Minister of Agriculture and Rural Development. The Scientific Committee consists of experts in the fields of nutrition, plant cultivation, animal breeding, law and economics.

The **Discover Great Food** mark is information for the consumers, while the producers get the possibility to raise the prestige of their product and their company by applying the DGF mark, i.e. the programme distinguishing good quality, implemented by the Ministry of Agriculture and Rural Development. The Discover Great Food mark also makes the products distinguished on the shop shelf. It is a chance to promote a product both in the country and abroad.



The Discover Great Food mark is awarded in the following groups of products:

- meat and meat products
- eggs and egg products
- milk and milk products
- fruits, vegetables, mushrooms and their respective products

- cereals and cereal products, including breadstuff
- ▶ fish and seafood and their respective products
- non-alcoholic beverages
- alcoholic beverages
- mineral waters
- honey
- confectionery and pastry products
- herbs and spices
- edible fats
- mixed and highly processed products based on the above mentioned raw materials

In order to ensure stable and very high quality of the marked products, the programme assumes periods of validity of the mark lasting not more than 3 years, both for products awarded with the mark for the first time and in subsequent periods of its extension.

The Ministry of Agriculture and Rural Development carries out actions promoting the Discover Great Food programme in order to spread information on the programme and marked products, as well as on the rules of the programme participation, conditions of acquisition of raw materials as well as production technologies and supervision systems. As a part of promotion of the Discover Great Food programme, the Ministry of Agriculture and Rural Development takes active participation in numerous exhibitions and fairs carried out all over the world. The Discover Great Food programme has been presented at the largest exhibitions and fairs taking place in the Czech Republic, Ireland, Greece, Spain, Germany, China, Japan, USA, South Korea, Israel, Great Britain, Indonesia, Slovakia, France and Hungary. Promotion of the programme includes also other measures making the mark more recognisable and the programme itself more popular (advertising, media broadcasts, picnics etc.).

Detailed information and full application documents for the programme are available at the following address:

Ministry of Agriculture and Rural Development DISCOVER GREAT FOOD programme 00-930 Warsaw ul. Wspólna 30 tel.: 22 623 16 30; 22 623 18 10, fax: 22 623 16 08 e-mail: pdz@minrol.gov.pl www.minrol.gov.pl

### **Regional and traditional products**

The regions of Poland are a treasury of products whose history is combined with Polish tradition and specific character of their areas of origin. These products are distinguished on the market due to their unique, specific quality related to their place of ori-



gin, non-industrial methods of growing crops and breeding animals, traditional production methods and observing the highest quality standards.

Production, protection and promotion of high quality food becomes more and more important in the states of the European Union. One of the basic means of the EU quality policy implementation is distinguishing agri-food products with marks, confirming their high quality, origin, as well as traditional production method. The system of regional and traditional products protection is based on two Regulations providing rules for their registration and protection. These are Council Regulation No 510/2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs and Council Regulation No 509/2006 on agricultural products and foodstuffs as traditional specialities guaranteed. The Regulations were implemented in the Polish legislation by the Act of 17 December 2004 on registration and protection of names and designations of agricultural products and foodstuffs and on traditional products.

As many as 17 Polish products have been covered by this protection scheme in the European

Union until mid July 2010. The products include mountain cheeses connected with the Polish Tatra mountains tradition: oscypek, bryndza podhalańska and redykołka; exquisite fruits: truskawka kaszubska and wiśnia nadwiślańska; as well as breadstuff: rogal świętomarciński, pierekaczewnik and andruty kaliskie. The protection of the Community covers also drinkable honeys such as półtorak, dwójniak, trójniak and czwórniak, the production tradition of which is as long as thousand years in Poland.

Both Polish producers and local administrations begin to notice the advantages of registration of regional specialities. The products with registered names are characterised by unique, specific quality related to their place of origin or traditional production method. The products are manufactured in strictly specified climate conditions, with production methods transferred for ages from one generation to another, which is the reason for their unique taste. They are often inseparably connected with regional folk culture. Upon registration the unique character of the products is confirmed by EU symbols, their names are protected and their producers can count on financial support.

Possibilities of promotion of traditional and regional products

The protection system provides considerable opportunities for the Polish producers and their products characterised by enormous potential. The richness of Polish national cuisine and exceptional agri-food products is proved by the constantly growing number of Polish products applying for registration with the European Commission and the fact that the national List of Traditional Products is becoming more and more popular. One of the main purposes of this list is to promote regional specialities in the country in order to obtain the possibility to subsequently promote them on international level. A prerequisite to register a product on the List of Traditional Products is to demonstrate at least 25-year-old tradition of its production. Products applying for registration should also be an element of local community's identity and should be a part of the cultural heritage of the region they come from. The indirect purpose of the list is also to prepare the producers to the registration of names of products from the list on the EU level. There are already over 750 products registered in the List of National products and the Ministry of Agriculture and Rural Development receives subsequent applications for registration.

The names of products are registered as Protected Designation of Origin, Protected Geographical Indication and Traditional Speciality Guaranteed.



### **Protected Designation of Origin**

– if the name of a product refers to a region, a specific place, or, in exceptional cases, to a country, where a given product is produced; the entire technological process takes place in the area

referred to by the name of the product, and its characteristic features s and quality are unambiguously associated with the specificity of the geographical area where it is produced..



**Protected Geographical Indication** – if the name of a product refers to a region, a specific place, or in exceptional cases to a country, where a given product is produced.

Such a product must be renowned, and have specific characteristics or quality resulting from, or attributable to, its geographical origin. The quality of a product may also depend on the geographical area (e.g. the climate, the flora, the lie of the land), local know-how of the producers or other natural or human factors.



**Traditional Speciality Guaranteed** – a product may be registered as traditional speciality guaranteed, when its name itself is specific or when it expresses specific character of an agricultural product or a foodstuff, and

the product itself is of specific character, i.e. it has a characteristic feature or a set of features that distinguish it from other products of the same category, and has a traditional character which may be reflected in using traditional raw materials, traditional composition or traditional production method.

The protection of designations of origin, geographical indications and traditional production methods provides new possibilities of development for producers of traditional and regional food. Protection of cuisine heritage contributes to the development of new, alternative income sources in rural areas. It is particularly important in the areas with unfavourable cultivation conditions, which are being systematically depopulated and are becoming insignificant in economic respect.

### **FISHERY**

#### **General information**

Fishery in Poland includes Baltic fishing, deepsea fishing and inland fishing.

In Poland, the internal seawaters occupy  $2005\ km^2$ , and the territorial sea  $-8682\ km^2$ .

The coastal zone of the Baltic Sea covers 36 municipalities in 18 poviats in three voivodeships: Pomorskie, Zachodniopomorskie and Warmińsko-Mazurskie.

The Baltic Sea is desalinated, with average salination decreasing with growing distance from the Danish straits. Polish marine areas are considered to be rich in fish resources.

Polish fishery is governed by the rules applicable within the EU – the fishing quotas defined by the European Commission apply. Due to improvement in the status of cod stocks, fishing quotas for this species were increased in 2010 as compared to 2009 - by 15% in the Eastern Baltic, and by 8,3% in the Western Baltic. Simultaneously, herring quotas in the Western stock were reduced by 16%, and in the Eastern stock by 12%. Salmon and sprat fishing quotas were reduced by 5%.

Operations in the deep-sea sector are conducted on the basis of, *inter alia*, Council Regulation (EC) No 23/2010 of 14 January 2010 fixing for 2010 the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in Community waters and, for Community vessels, in waters where catch limitations are required, as well as the Council Regulation (EC) No 1359/2008 of 28 November 2008 fixing for 2009 and 2010 the fishing opportunities for Community fishing vessels for certain deep-sea fish stocks.

Fishing in inland waters has been regulated by the provisions of the Act of 18 April 1985 on inland fishing (Dz. U. of 2009 No 189, item 1475, consolidated text). The inland fishery management is also highly influenced by the regulations of water law, civil law, environmental protection, nature protection, animal welfare and eradication of animal infectious diseases.

### Sea fisheries infrastructure

As of 1 January 2010, the Polish fishing fleet comprises of 848 vessels, including 4 deep-sea vessels, 179 fishing vessels and 647 fishing boats.

The number of vessels authorised to fish is available and updated on the following web pages: www.minrol.gov.pl and www.rybactwo.info.

Poland has 64 ports, where the Baltic fish may be landed, including 11 ports officially selected for the cod landing in a quantity exceeding 750 kg of live weight (Władysławowo, Hel, Jastarnia, Łeba, Ustka, Darłowo, Kołobrzeg, Dziwnów, Gdańsk – Pleniewo landing pier, Mrzeżyno and Świnoujście). Sea fishery supervision is exercised by three Regional Sea Fisheries Inspectorates: in Gdynia, Słupsk and Szczecin, which comprise of 14 local inspectorates.

The main species caught by the Baltic fleet include cod, herring, sprat and salmon.

The main regions of fishing by deep-sea vessels are some North Sea areas, Norwegian waters, Greenland waters, waters under the jurisdiction of the Kingdom of Morocco and of Islamic Republic of Mauritania, as well as territories under the Southern Indian Ocean Fisheries Agreement (SPRFMO), Northwest Atlantic Fisheries Organization (NAFO), NorthEast Atlantic Fisheries Commission (NEAFC) and the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR).

The main species caught by Polish deep-sea vessels include: krill, cod, saithe, Atlantic redfish, Atlantic halibut, Atlantic mackerel, and Atlantic horse mackerel. In 2009, most of the fishing quotas allocated to Poland were used by Polish ship-owners by means of fishing or via fishing quota exchange, mainly with Germany, the United Kingdom, Latvia, Estonia and Spain. Some exchanges are subject to complex package negotiations carried out by the management in cooperation with the sector. In 2009, Poland executed 25 exchanges of that type.

### Infrastructure of inland fishing

The area of inland waters in Poland amounts to approx. 580 thousand ha, out of which lakes occupy approx. 280 thousand ha, rivers – 140 thousand ha, dammed reservoirs – 55 thousand ha, ponds – 65-70 thousand ha, and other water areas – 40 thousand ha.

Out of the total area of ponds in Poland, estimated at almost 70 thousand ha, approx. 50 thousand ha (70%) are commercial ponds.

About 600 entities, which place high quality aquaculture products on the market, deal with professional fish or breeding, including about 400 holdings specializing in fully commercial carp breeding, which use fish ponds with the total area of more than 50 ha, and about 200 specialized and technologically advanced holdings dealing with trout rearing and breeding. Fish production is also carried out by about 10 thousand agricultural holdings for which aquaculture is an additional agricultural activity.

The majority of fish breeding holdings deal with rearing and breeding of more than one species of fish to at diversify their revenue. Apart from carp or rainbow trout, the following species are bred: tench, sil-

ver carp, bighead carp, grass carp, sturgeon, catfish, pike-perch, brown trout, brook trout, lake trout, sea trout, Atlantic salmon. Some holdings specialize in production of fish stocking and stocking material.

Apart from ponds, other types of waters may also be, and usually are, used for fishery purposes. The majority of these waters are included in public inland surface running waters and divided into fishing districts. Fishing districts are established at lakes, rivers and dammed reservoirs. In Poland there are about 2 370 fishing districts in total, used by about 800 entities. Certain specialized entities authorised to fish use two or more fishing districts. In fishing districts, more than 30 species of fish are produced, mainly: bream, roach, pike, silver bream, vendace, perch, tench, pike perch, crucian and eel. Commissioning of fishing districts takes place in tendering procedure. Tenders are open to allow various entities, such as natural persons, limited liability companies, corporate social organizations, forest divisions, and civil partnerships, to participate and subsequently get authorised to fish in the district.

### **Supply of saltwater and freshwater fish**

In 2009, the supply of fish and seafood on the domestic market amounted to 503 thousand tons and was by 3,5% lower than in the previous year. The decrease resulted mainly from the lower imports, with slightly lower catches and production of freshwater fish, and a steep increase in sea catches. However, the increase in catches was mostly designed directly for sale in foreign ports, and was not placed on the domestic market.

In 2009, similarly as in previous years, main attention was focused on cod fishing in the Baltic Sea. The European Union Council of Ministers, on the grounds of scientific consultancy, decided that the condition of the Western stock of cod had improved, making it possible to increasing the fishing limit (the so called TAC - total allowable catch) by 15%. However, Poland had to return the overfishing part of 2007, amounting to 2 400 tons.

In order to prevent fishermen from exceeding cod fishing quotas, a new domestic policy was developed concerning the cod fishing, namely introducing a new method of managing the fishing effort for a period of 3 years. The new system consisted in dividing the fleet, which had dealt with cod fishing so far, into 3 parts out of which 1/3 was allocated individual fishing quotas, in the amount determined after consulting the fishery community, which was to guarantee the fishing profitability. The remaining 2/3 of the fleet had to abandon cod fishing and, in return, received financial compensations and could fish other species. The fleet was di-

Specification	2006	2007	2008	2009
Sea catches	125,6	133,4	126,0	211,6
Baltic	104,9	107,8	94,6	130,9
Deep-sea	20,7	25,6	31,5	80,7
Freshwater catches and aquaculture	54,1	52,4	53,6	51,7
Domestic catches in total	179,7	185,8	179,6	263,3
Imports	587,7	642,0	730,7	692,2
Exports	296,8	345,6	387,9	452,3
Supply of consumption fish on the domestic market	470,6	482,2	522,4	503,2

**Table 29.** Fish and seafood balance in Poland (thousand tons of live weight of fish); Source – Fish market – IERIGŻ, Dep. RIR MRIRW

vided by way of sampling and the rules determined are to be valid for 3 years, and each year a different group of fishermen shall be authorised to fish cod.

The above mentioned financial compensations for fishermen, due to temporary abandonment of cod fishing, are paid from the funds under Operational Programme "Sustainable Development of the Fisheries Sector and Coastal Fishing Areas for 2007–2013", which permits Poland to use considerable financial funds allocated for restructuring Polish fishery. The Programme covers adaptation of the fishing fleet, modernisation of fishing vessels, ports and harbours, as well as of processing plants, aquaculture and fishing-related activities where an important role will be played by local self-governments in cooperation with the fishery community.

The most important data on the fish management in 2009 were presented in a synthetic form in the table below. **Table 29.** 

In 2009, both Baltic and deep-sea catches increased significantly, by more than 85 thousand tons in total.

In deep-sea fishery, catches were higher by 49.2 thousand tons (156.1%), and amounted to 80.7 thousand tons. This increase was caused by intensification of fishing in African fisheries and by the use of new areas in the Southern Pacific. Consequently, the share of deep-sea catches in total catches increased from 25% to 38%.

Baltic catches increased by 38%, and amounted to 130.9 thousand tons. The dynamics of catches, in case of the Baltic fleet, was influenced mainly by the increased landing of pelagic fish, sprats and herrings.

Despite increased catches, the fishing quotas granted to Poland for 2009 for fishing in the Baltic Sea have not been used up by Polish fishermen for any limited species of fish, but their use was far better than in the previous year. Cod and salmon fishing, as spec-



ified in fishermen's reports, demonstrated the use of limits in, respectively, 99% and 51% (in the previous year - 83.5% and 38%), whereby the cod fishing quota was lower by 0,8 thousand tons and salmon fishing quota by 3.4 thousand units, compared to 2008. The herring fishing limit was used in 57% which meant improvement by 19% when compared to the previous year, whereby the amount of the fishing quota in 2009 was lower by 5.2 thousand tons compared to the previous year. The sprat fishing quota was used in 72% (39% in the previous year), with the level lower by 24.1 thousand tons. It is estimated that for consumption purposes (preserves, smoking), the Polish processing industry uses up to 40 thousand tons of sprat while the remaining part is designed for feeds and is landed mainly in Danish ports.

In total, among fish and seafood caught by Polish fishery the largest share in 2009 belonged to sprat (39.9%), followed by Atlantic horse mackerel (21.8%), herring (10.6%), cod (5.8%) and European

flounder (4.5%). Five dominant species constituted 82.6% of total sea catches.

Most freshwater fish for national consumption come from pond rearing where carp and rainbow trout predominate. Fish yields from natural waters (professional lake and angling fishing) constitute about 1/3 of the total supply of fish. Production and fishing of inland fish decreased in 2009 by 3.5% to 51.7 thousand tons, mainly due to reduction in fishing in natural waters and to lower production of carp and other fish in pond holdings. When compared to 2008, the supply of trout was higher.

### Fish and fish product market

The lower supply of imported fish together with the dynamic rise in their prices resulted in reduced consumption of fish and seafood in 2009 by 0.5 kilogram (by 3.6%) to 13.2 kilogram per capita (in live weight equivalent). Thus, the several years' upward

trend in fish consumption in Poland was impeded. The decline in consumption regarded mainly freshwater fish imported from Asian countries (panga and tilapia – by 1/3), with the increase of 5.3% in consumption of sea fish (salmon, herring, cod, saithe and sprat).

As a result of a high increase in direct exports and of reduction in the import, trade in the fish sector, for the first time in the last decade, achieved a positive balance. The export volume increased, in live weight, by 12% to 452 thousand tons and its value increased by 2.3% to EUR 842 million. On the other hand, the volume of imports was reduced by 5.3% to 692 thousand tons, with reduction in its value by 3% (EUR 838 million). The sector's commercial results in 2009 were greatly affected by the currency exchange rate. PLN depreciation significantly improved the export profitability but imported fish were also relatively more expensive. In 2009, the demand for Polish products on its largest market - Germany - decreased by about 10%, however, it was compensated by an increase in sales to, inter alia, the USA, Czech Republic and France.

### **Fish processing**

The unfavourable economic situation had no negative influence on the results of the domestic fish processing industry. The decline in production in the first half of 2009 was overcompensated in the second half of the year, and in total it increased by 3.7% - to 281.5 thousand tons (in processing plants employing over 49 persons). When compared to 2008, the production of smoked fish significantly increased, so did

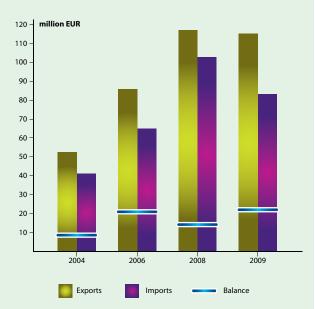
the production in the group of other products such as salad, paprikas, fish paste, etc. The largest decline was observed in the deep processing of herring and sprat as well as in the production of fresh fillets.

The share of more 50% of the direct exports in fish processing revenues together with the decrease in the value of PLN against major currencies caused a steep increase in the sales value to PLN 5.9 billion (in processing plants employing over 9 persons) and a clear improvement in financial indexes. The share of profitable companies in the total number of companies increased to 87.8% (by 5.5%), and the share of profitable companies in revenues of the industry to 88.8% (by 7.0%). Investment expenditure was reduced to PLN 127 million against almost PLN 270 million in the previous year.

After several years of stabilization of fish and fish products prices in 2009, they started rising dynamically. The price rise was noted at all market levels. Like in previous years, the prices rose most slowly at the level of first sale and the highest dynamic growth was characteristic of retail. On average, within the year consumers paid for fish and fish products by 8.4% more than in the previous year and in case of certain products the price increased by as much as 18-19% (e.g. frozen fillets of Alaska pollock and hake).

In 2010, the fish market should be more stable. Improvement in the global economic situation will be reflected in the growth of exports and of fish processing in the country. The decrease in prices of imported fish, together with expected PLN appreciation pressures, may also have a hindering influence on retail prices, and may increase the demand on domestic market.

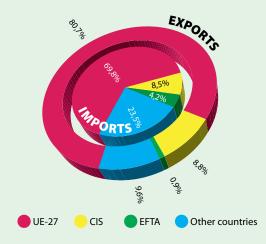




**Fig. 15.** Results of the foreign trade turnover in case of agri-food products (in million EUR); *Source: Foreign trade in agri-food products* 

The share of agri- -food products in:	2003	2004	2005	2006	2008	2009
- total exports	8,4	8,8	10,0	9,8	10,1	11,7
- total imports	5,9	6,2	6,8	6,4	7,2	8,6

**Tabble 30.** The share of agri-food products in the total Polish foreign trade turnover (in %); *Source: Foreign trade in agri-food products* 



**Fig. 16.** The geographical structure of exports and imports of agri-food products in 2009; *Source: Foreign trade in agri-food products* 

### **FOREIGN TRADE**

Since the beginning of 2009, Polish foreign trade turnover has slowed down significantly. The dynamics of Polish exports was negatively affected by the low foreign demand, determined by continuing recession trends in global economy and by operations of individual states to protect their respective internal markets. The value of Polish exports decreased by 15.5% compared to 2008 and amounted to EUR 98.2 billion, and of Polish imports by 24,5%, reaching the level of EUR 107.5 billion. The negative balance of Polish foreign trade turnover amounted to EUR 9.3 billion. The higher dynamics of imports decline had a favourable impact on foreign trade turnover balance, resulting in an improvement in the balance compared to the previous year. The scale of Polish imports was limited by the declining demand for the relatively expensive goods offered by foreign suppliers.

Once again, foreign trade in agri-food products resulted in a positive trade balance in 2009 (EUR 2.3 billion). Starting from the accession of Poland to the EU, the importance of foreign trade in agri-food products in Polish balance of trade and payments kept growing. The surplus in foreign trade in food reduces the negative turnover balance of total Polish foreign trade. The share of agri-food exports in total increased in 2009 to 11.7% against 10.1% in the previous year, and of the imports - from 7.2% to 8.6%. Trade has a favourable impact on the economic situation in many sectors of agriculture and agri-food industry. It is estimated that in 2009 ca. L of total food industry production was designed for export. In addition, under conditions of declining domestic demand, export becomes an important channel of external product distribution channel. The high dynamics of foreign trade turnover in the recent years resulted primarily from reduction of administrative and customs barriers, and from opening of the Eastern market (in 2008). However, after a period of relative stabilization, the year 2009 has brought about some changes in geographical structure of Polish foreign trade in agri-food products. Fig. 15.

When comparing 2009 with corresponding periods of the previous year, the agri-food exports decreased by 1.7% i.e. to EUR 11.5 billion. Also, the share of EU-27 in Polish agri-food exports decreased (by 0.4%). The share of old Member States slightly increased (by 0.8%), while the share of new Member States decreased by 1.1%. Sales to most EU countries decreased, whereby the largest decrease occurred in exports to the Baltic countries (Lithuania, Latvia and Estonia) and Hungary (by 24% in total). The decrease in exports to Austria, Denmark, Sweden and Slovakia

fell within the limits from 17 to 5%, the exports to Germany, the Netherlands and the United Kingdom decreased by 15% in total. The exports increased in case of Spain (by 42%), Italy (by 23%) and France (by 27%). The share of our largest export market of agri-food products (Germany) decreased to 23% (by 1.8%). Many developed economies, particularly EU economies, felt the effects of economic crisis, visibly reducing the domestic demand, including the demand for foreign goods, which has become a major reason for weakening the Polish export of agri-food products. With reducing the demand for imported goods in 2009, the share of CIS in Polish exports decreased (by 0.6%). In this group of countries, however, the increase in exports to Russia was noted (by 16%). Also, the share of Russia in Polish agri-food exports increased from 0.7 to 4.9%. Sales to Ukraine and Belarus decreased by 25% - 28%. Tabble 30.

Geographical structure of trade in agri-food products

In 2009, the geographical structure of trade in agri-food products changed. The exports to the EU and EFTA countries decreased, while the exports to other developed countries, the developing countries, and the Balkan countries increased. On the import side, the turnover decreased in case of most groups of countries, with the exception of the Balkans.

The changes in geographical structure of Polish foreign trade indicate that in the face of global economic crisis, Polish exporters started to diversify their outlet markets again, as reflected by the declining share of developed countries, including EU, and the increasing share of Russia and the developing countries. **Fig. 16.** 

### **EXPORTS**

In 2009, the value of exports to the EU countries amounted to EUR 11.5 billion and was by 1.7% lower than in 2008. The share of EU-27 in Polish agrifood exports decreased. The growth of exports to the developing countries was high (by 13%) and their share rose by between 0.6% and 4.6%. The growth of exports resulted mainly from sales of cereals to the Northern African countries which was growing in the first half of 2009. The upward trend in export to the Balkan countries continued, where the value of sold goods was over 5% higher than in 2008. The agrifood exports to the USA, Canada, South Africa, Israel, Japan and New Zealand rose by 9%, although the share of these countries in export of agri-food products still remains insignificant.

Within EU-27, Poland exports the largest quantity of goods to Germany. In 2009, the value of exports to this country amounted to EUR 2.6 billion, and

constituted 22.9% of the entire agri-food exports. In 2009, no major changes were observed in exports to the CIS countries, however, their share in exports of agri-food products decreased from 9.4 to 8.8%.

### **IMPORTS**

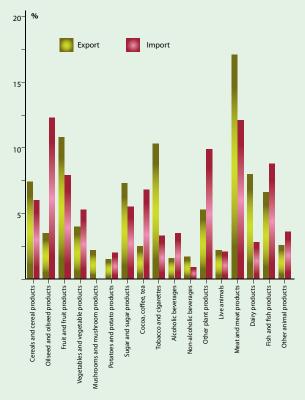
In 2009, the dynamics of our imports decreased as compared to 2008. The value of imports from the EU countries amounted to EUR 6.5 billion and was by 9.8% lower than in the previous year. The majority of imported goods originated from EU-15 (EUR 5.6 billion - a decrease by 9% compared to 2008). The decrease in imports from the new Member States was significantly higher (by 16%). As a consequence, the share of the entire Community in the imports of agrifood products decreased by 0.2% (to almost 70% of the total value). The largest decrease in imports was observed from Estonia and Lithuania (by more than 40%) and France (by 11%). The increase in imports, on the other hand, was noted in the case of Belgium (by 12%) and Latvia (by 42%). Also, the imports from developing countries decreased (by 13%). The import from EFTA countries rose by 4%, and their share in total imports increased by 0.6%. The imports from the CIS countries decreased by 25%. Decreased imports from these countries did not have any major impact on their share in the total imports, which decreased by 0.5% and amounted to 2.5%.

Under conditions of decreasing import turnover, the share of developed countries decreased, while the importance of the developing countries increased. These changes indicate a search for cheaper sources of supply and a relative increase in the share of raw materials, which are dominant in the imports from countries characterised by a low degree of economic development.

### BALANCE

The positive turnover balance in 2009 was maintained with the majority of groups, and this year brought about a significant improvement in trade balances with the countries that count in Polish foreign trade. In most cases, the improvement resulted from greater dynamism of decline in imports than of exports. The most significant improvement was achieved in trade with the developing countries. The positive balance with EU-27 amounted to EUR 2.8 billion, while in the same period of the previous year it amounted to EUR 2.3 billion. The surplus in trade balance as regards EU-15 increased by almost a half. The balance with the CIS countries slightly decreased, while the balance with the Balkan countries slightly increased.

### **FOREIGN TRADE**



**Fig.17.** Commodity structure of the export and import of agri-food products between January and August 2009; Source: Foreign trade in agri-food products IERiGZ (December 2009)

### Commodity structure of foreign trade in agri-food products

Trade in agri-food products - in terms of value - is dominated by food products whose share in the income from the entire export of Polish food amounts to 85%. The share of processed products in agri-food imports is also high, amounting to ca. 65%. The surplus in foreign trade in agri-food products for 2009 amounted to about EUR 2.2 billion. The proceeds from exports decreased by 1.7% to EUR 11.5 billion, and the expenditure on imports - by almost 9.5% to EUR 9.3 billion. Despite the declining demand, processed products enjoy great interest in the EU markets, mainly because of their price, although their taste and values in terms of nutrition are also important. The increasing demand on domestic market makes the exports an important, one may even say the most important, distribution channel for many sectors. However, it is becoming increasingly difficult to maintain the level of export in global crisis conditions. The PLN/ EUR and PLN/USD exchange rate has had, and will have, a significant impact on Polish foreign trade. It is expected that in 2010, despite a relatively good situation in the country, the limited external demand may cause further stagnation of exports and reduction of imports of agri-food products.

In 2009, compared to the previous year, the exports of animal products significantly decreased (approximately by 11%), while the exports of plant products did not change. Among the animal products, the exports of most goods were lower, apart from live animals. As regards exports of plant products, the increase in sales of cereals, fresh fruit, meals and oilcakes, as well as tobacco and cigarettes made up for the decline in sales of other products. The import of animal products slightly decreased (by 2%). The scale of decline was limited by the growing imports of live animals (mainly swine) and – to a certain extent – of cereals and meat. The import of plant products decreased by 23%, mostly as regards cereals, fruit, fruit products, waters and soft drinks.

As regards commodity structure of the exports of food, the share of animal products accounted for 36.5% of the entire export, and compared to 2008, it decreased by 3%, while the share of plant products increased to 58.2%. These changes were influenced by a decreased share of exports of meat products as well as of fish and fish products. Among the plant products, the share of cereals as well as of products of tobacco industry increased. In remaining groups of plant products, the changes in their share were insignificant. Fig.17.

In 2009, the unfavourable situation in foreign trade as regards cereals and cereal products improved. In the entire year 2009, the surplus in trade in these goods amounted to about EUR 158 million, compared to the deficit of EUR 540 million in 2008. The improved result was achieved thanks to the increased surplus in trade in cereals, as well as from reduced deficit in trade in primary processing products which made up for the decline in the surplus in trade in processed products. It is expected that in 2010 the cereal sector may continue to generate surplus in foreign trade.

According to the estimates by IERiGŻ, the exports of livestock, meat, milk, pork products and fats amounted to 262 thousand tons in product weight, having decreased by 25% when compared to 2008. The value of exports decreased from EUR 680 million in 2008 to EUR 532 million in 2009. This high decline in exports was caused by a lower production and its high prices. The imports of pork products increased by 20% in comparison to 2008, but its value increased by 7% when compared to the previous year. The negative balance of trade in pork increased from about EUR 526 million in 2008 to EUR 699 million in 2008 to E



lion in 2009. It is estimated that the income from exports of livestock, meat and beef products increased in 2009 by about 5%, mainly due to the export of beef which was higher by 13.3%. The greater increase in sales volume than in its value resulted from the low prices of beef products, mainly in the second half of 2009. The import of beef products in 2009 slightly decreased on the expenditure side (from EUR 35 to 36 million), mainly due to the smaller purchases of cattle and to the lower prices of imported beef products. The positive balance of foreign trade in beef increased by 10%, and the increase of the balance in the years 2005-2009 is estimated at more than 50%.

As regards foreign trade in dairy products, the effects of economic crisis in the global market were noticeable. According to the estimates by IERiGŻ, the export decreased by 24.5%, and in 2009 it amounted to EUR 882 million. In the global markets, the prices of durable dairy products significantly decreased. The consequence of this decrease was a significant reduction in the value and volume of export turnover. The

low prices had a negative impact on the profitability of export transactions, which was only partially improved by PLN depreciation against EUR.

Under conditions of minor changes in the domestic demand, the export of dairy products is of essential importance for the industry whose self-sufficiency is estimated at approximately 113%. The favourable changes have taken place in the commodity structure of exports, with the share of consumption products increasing and the share of semi-finished products and raw materials decreasing. Analogous changes have been observed in the commodity structure of imports. The share of finished products has increased while the share of raw materials and semi-finished products has decreased. The low global prices, however, resulted in an increase in imports, which expressed in raw material equivalent increased in 2009 by about 10%, but - due to low prices - its value decreased by more than 9% compared to 2008. In 2009, the positive balance in raw material equivalent amounted to 1.5 billion, and expressed in terms of value - by EUR 625 million.

## AGRICULTURAL SUPPORT POLICY

### **Financial support for agriculture**

Poland's membership in the European Union significantly increased the level of support for agriculture and rural areas, ensuring at the same time the stability of aid. The funds for development and modernisation of holdings or enterprises, as well as for development and renewal of villages and for development of fisheries may be obtained under the Rural Development Programme for 2007-2013 and under the Operational Programme "Sustainable Development of the Fisheries Sector and Coastal Fishing Areas for 2007–2013". In addition, national funds are channelled to the above mentioned sectors of economy. These programmes are implemented by the Agency for Restructuring and Modernisation of Agriculture (ARMA) - the largest paying agency in Europe.

### **Domestic support**

The basic support granted entirely from the national budget consists in subsidies lowering the interest rate on credits granted by banks to agriculture and food processing entities. These subsidies are granted by the Agency for Restructuring and Modernisation of Agriculture on the basis of contracts concluded with banks.

From the time when the Agency was established, there have been 54 preferential credit lines open in total, including 43 lines under industry and regional programmes approved by the Minister of Agriculture and Rural Development. Currently, the purpose of contracted credits is, *inter alia*, to expand the commodity offer and tailor it to the requirements of the market, to reduce manufacturing costs, to improve the quality of products and to improve the agrarian structure.

In 2010, 12 preferential credit lines are available, including the most popular investment credits for young farmers (nMR), credits for land purchase (nKZ), and basic investment credits (nIP). Credits allow for financing the majority of investments related to agricultural production and to processing of agricultural products (e.g. land purchase, construction or modernisation of buildings, purchase of tractors, machinery and equipment). For the majority of credit lines, the interest rate paid by the borrower currently amounts to 2,00% per year. Depending on the credit line, preferential investment credits may be granted for a period of between 8 and 20 years, while the

grace period for credit repayment may not exceed 2 or 3 years. Disaster credits are granted for a shorter period, maximum 4 years. The amount of credits may not exceed:

- ▶ 80% of investment in the agricultural holding (90% nGR) and no more than PLN 4 million
- 70% of investment in special sections of agricultural production and no more than PLN 8 million,
- ▶ 70% of investment in processing of agricultural products and no more than PLN 16 million.

The procedure of applying for preferential investment credits comprises of drafting an investment plan and submitting it, together with credit application and a set of required documents, at a bank cooperating with the Agency. The information on credit conditions may be obtained on the Agency's websites or/and in cooperating banks.

Between 1994 and 30.06.2010, banks cooperating with the Agency have granted 407,636 preferential investment credits in the total amount of PLN 31.89 billion. the Agency has disbursed PLN 8.89 billion as subsidies to the interest on those credits. Most investment credits with ARMA's subsidies towards the interest rate were granted under the following credit lines:

- ▶ 151,121 credits for young farmers (MR/nMR) amounting to PLN 14.32 billion, which constituted 37.07% of the total amount of credits granted,
- ▶ 109,418 basic investment credits (IP/nIP) amounting to 6.22 billion (26.84%),
- ▶ 107,576 credits for land purchase (KZ/nKZ) amounting to 4.36 billion (26.39%).

The value of investments implemented with the use of credits amounted to PLN 49.07 billion. In addition, since 1995, the Agency has applied subsidies to the interest rate of investment and capital credits for resumption of production after the occurrence of losses caused by natural disasters, and by 30.06.2010 the number of such credits was 1,210,512, for the total amount of PLN 9.69 billion.

Another form of support from the national budget are sureties and guarantees for repayment of bank credits. The Agency's sureties are granted for up to 80% or even 100% of credit amount, depending on the amount of income per person in the student's family. The priority in obtaining sureties for repayment of student credit is given to persons from low-income families. No fee is charged for granting sureties for student credits.

Since 2001, 4,781 students have used this form of support, and the total amount of granted sureties has been PLN 66.75 million. This year, the Agency has granted 193 sureties for student credits, for the amount to PLN 2.61 million.

### **AGRICULTURAL SUPPORT POLICY**

In 2009, PLN 55.10 million was spent under the programme for disposal of fallen farm animals, while in the previous year the corresponding amount was PLN 45.20 million. The financial support in 2009 was used to cover the costs incurred by farmers for disposal of: 108 thousand cows, including 43 thousand subject to testing for TSE (BSE), 5.6 thousand sheep and goats, including 4.2 thousand subject to testing for TSE (BSE), 4.3 thousand horses and 178 thousand pigs. 26% of the extended funds were used towards the costs of disposal of animals subject to testing for TSE (BSE), i.e. cattle older than 2 years and sheep and goats older than 18 months, in 24% the funds were used to cover the costs of disposal of young cattle, sheep, goats and horses, while the remaining 50% was earmarked for the costs incurred by farmers for disposal of fallen swine.

Moreover, the Agency pays from the national funds the equivalent for forestry crops to about 8 thousand owners of agricultural land, who in the years 2002-2003 carried out afforestation, pursuant to the Act of 8 June 2001 on designing agricultural land for afforestation (Dz. U. of 2001, No 73, item 764, as amended), in the total area of about 19,500 ha. The table below shows the amount of funds paid by the Agency in the years 2008-2009. **Table 31**.

De minimis aid for farmers, who submitted applications for complementary payments to hop cultivation areas for 2008 or 2009, other than the complementary payment to the hop cultivation area not related to production, is also granted from the national funds.

By the end of August, the aid was granted to 988 farmers in the total amount of over PLN 20 million.

### **Direct payments for agricultural areas**

Poland, as the majority of new European Union Member States (except for Slovenia and Malta) applies the Single Area Payment Scheme (SAPS).

Direct payments are annual payments, for which the European Commission each year sets out financial ceilings within which payments may be made. Financial ceilings are specified in EUR, thus the EUR exchange rate determined by the European Central Bank as of 30 September of a given year is of key importance in determining the payment rates. Fig. 18.

The **table 32** presents the rates broken down by the types of payment, using the EUR exchange rate for a given year.

By 27 August 2010, the Agency for Restructuring and Modernisation of Agriculture disbursed PLN 47,361,029,507 in direct payments for the years 2004-2009. **Table 33, fig. 19.** 



Year	Equivalent amount [PLN]
2008	39 491 919,98
2009	40 806 609,18
2010*	31 595 103,50
Razem	284 292 506,33

**Table 31**. Payments of equivalents \* by 31 August 2010.

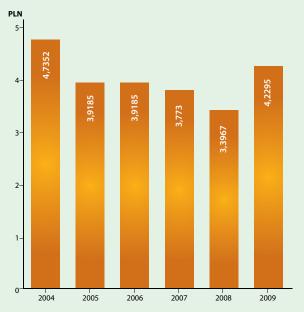


Fig 18. EUR exchange rate in the years 2004 – 2009.

currency	SAPS (JPO)	other plants	current hop	historical hop	animal payments	sugar payment	payment to energy crops	payment to soft fruit	payment to toma- toes
PLN	210,53	292,78	1013,81	Х	Х	Х	Х	Х	Х
2005									
PLN	225,00	282,35	870,02	Х	Х	Х	Х	Х	Х
2006									
PLN	276,28	313,45	962,75	Х	Х	33,94	Х	Х	Х
				20	07				
PLN	301,54	294,91	452,76	526,01	438,76	37,29	169,78	Х	Х
				20	08				
PLN	339,31	269,32	407,60	591,50	379,55	39,45	152,85	1358,68	133,65
	,			20	09				
PLN	506,98	356,47	507,54	861,32	502,62	53,47	190,33	1691,80	166,82

**Tab 32.** Rates of individual payment types in the years 2004-2009

Voivodeships	SAP	CNDP other plants	CNDP current hop	CNDP historical hop	CNDP animal payments	Payment to tomatoes	Payment to soft fruit	Payment to energy crops	Sugar payment
Dolnośląskie	1616962398	1128019560	163590,02	77144,03	66266471,83	93382,17	1679263,45	3112690,65	205826457,6
Kujawsko- pomorskie	1910710566	1338638859	48425,92	20916,24	95329118,55	13642290	2915375,17	461699,27	346700191,3
Lubelskie	2462455548	1557068451	7677208,47	3458856,94	179675032,1	6931696	44807992,17	1304216,18	290334807,9
Lubuskie	722559543,7	474633583,1	53729,24	24822,23	52447674,7	298399,01	509887,96	550598,02	18047191,44
Łódzkie	1787446458	1138305918	21577,08	3987,16	142706077,8	5469644,3	3516575,36	498100,62	67950471,41
Małopolskie	935579998	508891164,7	525,2	0	119681807,2	0	1451131,53	88864,19	13245488,33
Mazowieckie	3463411798	2045118295	56992,41	17572,04	449738289,2	496451,67	29956532,3	971176,78	162882070,3
Opolskie	928745113,9	695116701,8	421179,92	199485,86	32746856,44	0	53867,83	6492696,27	162697022,4
Podkarpackie	983773989,5	537142153,3	95887,28	42645,76	109672366,4	0	2525128,54	1240250,26	43953753,76
Podlaskie	1877869819	1132006250	0	0	391327687,8	0	1587251,55	148477,5	41404686,87
Pomorskie	1300628802	887770530,6	0	0	97776603,64	0	2135301,72	1428929,41	87685900,54
Śląskie	625334736,8	418809724,5	4816,23	2275,66	46897820,54	34325,7	244343,74	432241,12	17224376,44
Świętokrzyskie	913768147,6	517233023,9	33403,5	14524,62	88030285,69	428053,6	7026346,19	69100,44	64946026,17
Warmińsko- mazurskie	1768079379	1131863117	2734,67	0	278450957,2	0	2695385,57	788120,21	31681753,02
Wielkopolskie	3170061611	2225434524	823139,48	392510,52	193971865,8	23405680	2151069,56	3912164,47	379849352,6
Zachodniopo- morskie	1484750491	1030354393	22094,53	0	75972791,97	0	4253619,39	6058359,69	87816877,16
Total	25952138400	16766406248	9425303,95	4254741,06	2420691707	50799923	107509072	27557685,1	2022246427

**Table 33.** Amounts of payments made broken down by support schemes and by voivodeships

### Rural Development Plan 2004-2006 (RDP)

The Rural Development Plan 2004-2006 focused on social, economic and environmental aspects of rural development, complementing the measures taken under the cohesion policy and the Common Agricultural Policy, and implementing the strategic objectives:

- ▶ Improvement in the competitiveness of the agrifood economy (measures: Early retirement, Support for semi-subsistence agricultural holdings and Support for agricultural producers' groups).
- Sustainable development of rural areas (measures: Compensatory allowance for less-favoured areas (LFAs), Support for agri-environment and animal welfare, The afforestation of agricultural land, and Meeting the EU standards by agricultural holdings.

Additionally, under RDP some funds (over 20% of the whole budget) have been earmarked for complements to direct payments, for implementation of projects under the pre-accession SAPARD programme, and for technical assistance.

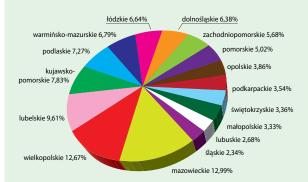
The total RDP budget amounted to EUR 3,592.4 million (including EUR 2.866 million from the of the European Agricultural Guidance and Guarantee Fund Guarantee Section) and has been used in 99,98%. Table 34.

## SOP "Restructuring and Modernisation of the Food Sector and Rural Development, 2004–2006"

The Sectoral Operational Programme "Restructuring and Modernization of the Food Sector and Rural Development, 2004–2006" was a document specifying the scope and form of support for the rural areas in Poland during the programming period between 2004 and 2006, and implementing the objectives of EU cohesion policy. The Programme was one of the elements in the implementation of social and economic development strategies, specified in the National Development Plan 2004–2006 (NDP).

The Sectoral Operational Programme "Restructuring and Modernization of the Food Sector and Rural Development, 2004–2006" was financed from the European Union funds under the European Agricultural Guidance and Guarantee Fund Guidance Section (EAGGF) in combination with national public funds (state budget, self-government funds), and beneficiaries' own funds.

In 2004–2006, Polish villages received support under this Programme in the amount of EUR 1,787,812,868:



**Fig. 19.** Percentage share of payments under direct support schemes for the years 2004 -2009 by voivodeships

Specification	Number of submitted applications	Number of decisions granting aid	Amount of payments made in million PLN
Early retirement	58 341	54 014	2 083,7
Support for semi-subsistence agricultural holdings	172 728	157 656	1 316,6
Compensatory allowance for less-favoured areas (LFAs)	2 052 698	2 007 334	3 708,3
Support for agri-environment	75 500	70 600	814,9
Afforestation of agricultural land	10 513	9 006	384,5
Meeting the EU standards by agricultural holdings	72 591	71 385	2 415,2
Support for agricultural producers' groups	103	100	24,2
Technical assistance	110	96	108,3
Complements to direct payments	4 249 786	4 208 344	2 866,9
Projects under Regulation No. 1268/1999	1 829	1218	467,7
Total	6 694 199	6 579 753	14 190.3

**Table 34.** Implementation of the Rural Development Plan; Source: Agency for Restructuring and Modernisation of Agriculture

	ods N N		nitted ations				ments ade	
Specification	Limit of funds for 2004-2006 i	number	amount in million PLN	number	amount in million PLN	amount in million PLN	used limit %	
Investments in agri- cultural holdings	2183,3	42582	4573,4	24230	2490,9	2418,5	110,77	
Setting-up of young farmers	709,9	18858	942,9	14151	707,6	707,6	99,67	
Trainings	75,2	660	309,6	182	78,2	73,5	97,77	
Agricultural advisory and extension service support	164,5	56	214,7	33	167,8	161,8	98,30	
Improving proces- sing and marketing of agricultural pro- ducts	1962,3	1646	2928,4	1114	1801,6	1702,3	86,75	
Restoring forestry production potential	51,7	57	82,3	39	52,1	51,6	99,80	
Land reparcelling <sup>1)</sup>	67,2	46	129,3	32	64,5	62,8	93,49	
Rural renewal and preservation and protection of cultu- ral heritage <sup>1)</sup>	327,2	3425	687,0	2036	404,6	395,9	121,00	
Diversification of agricultural activities and activities close to agricultural activities	315,2	7170	524,8	4106	296,8	282,0	89,48	
Agricultural water resources management <sup>1)</sup>	371,2	308	606,5	255	375,6	373,0	100,49	
Development and improvement of the technical infrastructure related to agriculture	161,1	4953	261,0	3394	153,8	146,7	91,04	
LEADER+ 4 type measure	114,3	435	151,8	316	118,6	115,5	101,04	
Support for the programme management and implementation system	54,2	220	79,5	180	50,6	44,8	82,65	
Institutional deve- lopment	34,2	143	131,5	133	55,3	50,7	148,24	
Programme information and publicity	8,8	151	22,2	118	9,4	5,6	63,63	
TOTAL	6600,3 <sup>2)</sup>	80710	11644,9	50319	6827,4	6592,3	99,87	

<sup>1)</sup> Individual amounts presented under measures: Land reparcelling, Rural renewal and the preservation and protection of cultural heritage and Agricultural water resources management apply to the Community funds only. These amounts do not take into consideration the national co-financing funds, therefore the use of funds limit has been presented as a percentage of the use of the EU allocation part for the above mentioned measures.

<sup>2)</sup> the financial limits applicable from 16 June 2009 to 30 June 2009 have been converted according to the exchange rate amounting to 4,4910 (the ECB exchange rate from the European Commission's penultimate working day of the month preceding the month for which the limit of Community funds allocation is calculated).

**Table 35.** Implementation of SOP "Restructuring and Modernisation of the Food Sector and Rural Development, 2004–2006"; *Source: Implementing authorities* 

EUR 1,192,689,238 from the European Union funds, and EUR 595,123,630 from the national public funds.

Applications under this Programme were submitted during the period between June 2004 and June 2007 (apart from technical assistance and measures implemented by the voivodeships administration). Since the Programme was launched, there have been 80,710 applications submitted for co-financing in the amount of PLN 11.6 billion which corresponds to 176.12% of the financial limit for the years 2004-2006. 50,319 agreements for the amount of approximately PLN 6.8 billion have been signed, which accounts for 99.87% of the limit. **Table 35.** 

Since the Programme was launched, the majority of funds have been allocated for support for investments in agricultural holdings and for improvement of processing and marketing of agricultural products. More than 88% of tasks implemented under support for investments in agricultural holdings concerned the purchase of equipment and movable equipment. With regard to "Improving processing and marketing of agricultural products", there have been improvements and controls introduced of sanitary conditions (26%), as well as improvements and controls of quality (22%), and of application of new technologies (18%).

### Rural Development Programme 2007-2013 (RDP)



The Rural Development Programme 2007–2013 (RDP 2007–2013) is a document specifying the scope and form of support for rural areas in Poland during the next programming period, i.e. between 2007 and 2013. A large part of measures provided for in the Programme is a continuation of the instruments implemented in the years 2004–2006 under the Rural Development Programme 2004–2006, which implemented in Poland the so-called accompanying measures to the Common Agricultural Policy and the Sectoral Operational Programme "Restructuring and Modernisation of the Food Sector and Rural Development 2004–2006" implementing the objectives of EU cohesion policy.

RDP 2007–2013 was adopted on 24 July 2007 during the meeting of the Committee for Rural Development of the European Commission, and on 7 September 2007 it was approved for implementation by the decision No CCI2007PL06RPO001 of the Commission of the European Communities.

The Rural Development Programme 2007–2013 is financed both from the EU budget (European Agri-

### **AGRICULTURAL SUPPORT POLICY**

culture Fund for Rural Development – EAFRD) and from national public funds. The total amount of subsidy from public funds under the Programme amounts to approx. EUR 17.4 billion. Allocation of funds from the EU budget amounts to more than EUR 13.2 billion, and the share of national public funds will amount to approx. EUR 4 billion. In fact, the funds to be distributed amount to approx. EUR 14 billion, since nearly 3 billion are the obligations from 2004–2006, taken under the Rural Development Programme 2004–2006.

Applications have been collected for 16 measures from all the axes as well as under the "Technical Assistance". **Table 36, chart 20.** 

According to data of 16 July 2010, since the beginning of the Programme implementation, there have been payments disbursed for the amount of approximately PLN 15.54 billion, including PLN 11.97 billion from the funds of the European Agricultural Fund for Rural Development (EAFRD), which constitutes 22.46% of the allocation from the EAFRD funds, earmarked for implementation of RDP 2007-2013. Most payments made came under the measure "Support of management in mountain areas and in less favoured areas (LFAs)" (about 26.12% of all payments made), "Early retirement" (about 20.63% of all payments made), "Agri-environmental programme" (about 16.01% of all payments made) and "Modernisation of agricultural holdings" (about 15.85% of all payments made).

### Modifications of RDP 2007-2013

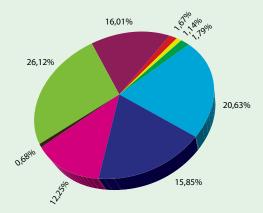
The Ministry of Agriculture and Rural Development took measures to introduce amendments to the Rural Development Programme for 2007-2013. These amendments result from a need to adapt RDP 2007-2013 to the newly introduced Community provisions concerning the so-called new challenges and to counteract the economic crisis. A part of the proposed amendments are planned to be introduced in connection with the analysis of the programme implementation in the first two years of operation of RDP for 2007-2013.

### Amendments to the so-called "new challenges"

- 1 In connection with the implementation of the socalled European Economy Recovery Plan (EERP), the budget of the European Agricultural Fund for Rural Development has been increased by EUR 1,020 billion. Additional resources granted to Poland for the measures with regard to rural development (EUR 168 890 000) will be designed for the so-called "new challenges" implemented by the relevant projects under the following measures:
- Modernisation of agricultural holdings projects regarding restructuring of dairy holdings (milk pro-

Specification	Number of submitted applications	Number of issued decisions/concluded agreements	Payments made in mil- lion PLN
Vocational training for persons employed in agriculture and forestry	220	-	-
Setting up of young farmers	7704	6005	279,0
Early retirement	17065	13674	3206,3
Advisory services for farmers and forest owners	8217	7455	0,5
Modernisation of agricultural holdings	43235	32890	2463,0
Increasing the added value to basic agricultural and forestry production	1625	779	331,9
Improvement and development of infrastructure related to the development and adjustment of agriculture and forestry <sup>1)</sup>	284	221	4,6
Participation of farmers in food quality schemes	12986	10144	0,05
Information and publicity	6	2	-
Support for semi-subsistence agri- cultural holdings - obligations from 2004-2006	-	-	1904,3
Agricultural producer groups	400	389	106,3
Support of management in mountain areas and in less favoured areas (LFAs) (campaign of 2007, 2008, 2009, 2010)	2999610	2223601	4060,0
Agri-environmental programme	365181	247583	2488,2
Afforestation of agricultural and non-agricultural land	8355	5807	258,9
Restoring forestry production potential damaged by natural disasters and introducing appropriate prevention instruments	169	42	-
Diversification into non-agricultural activities	7888	4292	177,9
Establishment and development of micro-enterprises	15011	1858	33,1
Basic services for the economy and rural population	2298	1779	24,5
Village renewal and development	4245	2668	142,3
Implementing the local development strategies	9891	616	0,07
Implementing the cooperation projects	20	3	0,01
Running of the Local Action Group	682	664	47,8
Technical assistance	435	209	14,4
TOTAL	3505527	2560681	15543,1

**Table 36.** Administering the applications submitted under RDP 2007-2013; *Source: Agency for Restructuring and Modernisation of Agriculture (status as of 16.07.2010)* 



Setting-up of young farmers
Early retirement
Modernisation of agricultural holdings
Support for semi-subsistence agricultural holdings
Agricultural producer groups
LFAs
Agri-environmental programme
Afforestation of agricultural

**Fig. 20.** Payments from public funds disbursed to the beneficiaries of measures implemented under RDP 2007-2013 – as of 16 July 2010; Source: Prepared at the Rural Development Department of the Ministry of Agriculture and Rural Development on the basis of the ARMA's monthly reports

Measure	Additional contribution from the EAFRD	Budget contribution
Modernisation of agricultural holdings	101 334 000,00	11 259 333,00
Improvement and development of infrastructure related to the development and adjustment of agriculture and forestry	33 778 000,00	3 753 111,00
Basic services for the economy and rural population	33 778 000,00	3 753 111,00
TOTAL	168 890 000,00	18 765 555,00

**Table 37.** Allocation of additional funds for the various measures (in EUR for the whole period)

duction development or reorientation due to the discontinuation of milk production). This category should include projects implemented by entities having now the milk quota, investing in improvement of the holding's economic results by way of development/modernisation of milk production or other direction of production.

- Improvement and development of infrastructure related to the development and adjustment of agriculture and forestry through the agricultural management of water resources – projects for water retention, in particular soil retention and preventing dewatering as well as renaturalisation of peat bogs and watercourses so as to recreate their retention capacity.
- ▶ Basic services for the economy and rural population projects on the use of renewable energy and projects on the construction of the broadband Internet infrastructure in rural areas. Table 37.
- 2 The level of co-financing investments regarding "new challenges" for projects on the common operational use of machines in the dairy sector has been raised by 10%.
- 3 A possibility to pay advances to the beneficiaries of the following measures: Modernisation of agricultural holdings, Increasing the added value to basic agricultural and forestry production, Diversification into non-agricultural activities, Establishment and development of micro-enterprises has been introduced.

## Amendments resulting from experiences in the implementation of the Rural Development Programme for 2007-2013

- 1 Early retirement the criterion on transferring the holding has been aggravated
- transferring land for enlargement of another holding which, as a result, will be no smaller than an average-sized holding in the country whereby the holding after transferring must be larger than the transferred holding by at least 10% in case when the holding with the area of more than 10 ha is transferred,
- transfer of the holding to the successor shall be allowed only where this successor is the beneficiary of the measure Setting-up of young farmers whereby the condition concerning the size of the holding may be met within three years from the date of its acquisition.
- 2 The measure *Increasing the added value to basic agricultural and forestry production* included introduction of preferences for the consolidation of entities. In case of the implementation of the operations related to the consolidation of entities, the limit of support shall be increased to PLN 50

- million. Simultaneously, the maximum allowable amount of support for other entities is reduced to PLN 10 million.
- 3 Under the measure Setting-up the young farmers, a possibility of granting the premium when a young farmer leases the holding from natural persons (so far, premiums have been granted in case of acquisition of holdings to be owned or leased from the State Treasury's resource).
- 4 Under the measure Setting-up the young farmers, the premium was increased to PLN 75 thousand.
- 5 Under the measure Setting-up the young farmers, the requirements regarding the size of the holding have been mitigated in the voivodeships where the voivodeship average is higher than the national average, the required average size of the holding was lowered to the level of the national average.
- 6 The limits of support in the measure *Establishment* and development of micro-enterprises have been changed: if under the operation one workplace is established, the maximum amount of support may be PLN 100 thousand, if at least two workplaces are established PLN 200 thousand, if at least three workplaces are established PLN 300 thousand.
- 7 Under the measures *Participation of farmers in the food quality systems* and *Programme information and publicity* it is planned to support also these entities which participate in the national quality system QMP (Quality Meat Programme).
- 8 Under the measure *Agri-environmental programme,* the payment rates for organic walnut were diversified from PLN 160/ha to PLN 800/ha depending on whether crops bear fruit and whether they have certificates.

The above amendments to the Programme have been approved by the European Commission.

### DISCUSSION ON THE SHAPE OF THE COMMON AGRICULTURAL POLICY AFTER 2013

The debate on the future of the Common Agricultural Policy conducted in the EU forum in the years 2009 and 2010 prepares the basis for the legislative process scheduled for 2011-2012 under which a legal framework for the future CAP will be developed and adopted. A very important element of the debate will be the discussion on the European Commission Communication to the European Parliament and the Council, planned for November and regarding the future of the CAP. It is expected that this document will contain some scenarios for possible changes. In the middle of 2011, it is expected that EC shall present official legislative drafts with regard to the future of the CAP. Publication of these documents shall coincide in time with taking over the EU Council Presidency by Poland (second half of 2011).

In the Forum of the EU Council of Ministers, as from September 2008, the future of the CAP is a subject of discussions initiated by successive presidencies: French, Czech, Swedish and Spanish in the forum of informal meetings of Ministers of Agriculture. Each of the listed Presidencies focused on a different area of the CAP. The discussion conducted by France was of a horizontal nature, regarding the whole of the CAP, its objectives, challenges it faces and the importance of this policy in the context of the future. The Czech Presidency focused on the issue of the future of direct payments. Sweden focused on the area of the future of rural development support and the relationships between the agricultural sector and climate changes, while Spain raised the issue of market management mechanisms and the issue of participation of agriculture and the CAP in implementing the objectives of the new economic strategy - EU-Europe 2020.

Poland actively participates in the debate on the future of the CAP and in many issues is the leading representative of the group of the new Member States. The basis for participation of the Polish representatives in these works is *The position of the Government of the Republic of Poland on the future of the Common Agricultural Policy after 2013,* developed by the Ministry of Agriculture and Rural Development. This document was approved by the Council of Ministers on 12 June 2009.

In accordance with *The position*, the future Common Agricultural Policy should continue to contrib-

ute to improvement in EU integration and cohesion. The Polish Government believes that the future CAP should remain a fully Community policy, in any dimension, including the budget dimension, i.e. based on the Community financing. In addition, it is necessary to eliminate the existing differences in the level of direct support. The future CAP must be the policy which is as straight and stable as possible and comprehensible both to farmers and taxpayers. The CAP must also remain the policy which strengthens cohesion and solidarity within the Community. The Polish Government thinks that the existing CAP objectives and principles remain valid, although this policy should also take into account new objectives and modification of many solutions and instruments applied today is also required. It considers retainment of all three elements of the current CAP - common market organisation, the system of direct payments and rural development policy – as reasonable<sup>1</sup>.

An expression of the activity of the EU Member States in the discussion on the future of the CAP after 2013 are joint declarations adopted by the groups of these countries in different configurations. At a meeting in Paris on 10 December 2009, The Paris Declaration on the Common Agricultural and Food Policy was adopted by the Ministers of Agriculture of 22 EU Member States, including Poland. The document stresses the key value of agriculture for political and economic development of Europe and opts for maintaining the agricultural and food policy at the Community level. On the other hand, the Declaration on the future of the Common Agricultural Policy after 2013, developed on the Polish initiative and agreed by the representatives of Bulgaria, Cyprus, Estonia, Lithuania, Latvia, Poland, Romania, Slovakia and Hungary, was adopted in Warsaw 3 February 2010. This document stresses the impossibility of achieving the objectives of the Europe 2020 economic strategy without vital, multifunctional agriculture and rural areas, indicating the contribution of the CAP to achieving integration and territorial cohesion at the level of the Community, Member States and regions. The states, which supported the Declaration, opt for retainment of the Community and solidary nature of the CAP together with the appropriate level of its funding after 2013. The document also calls for the necessity to abandon the historical criteria of allocating direct payments by connecting financial support with the current and future objectives, which is to ensure fair competition throughout the EU. In addition, the signatories of the Declaration postulate the necessity of the market intervention mechanisms, further support for rural development and further simplification of the CAP in order to reduce its implementation costs.

For the legislative process on the future shape of the CAP, it is important that in accordance with the provisions of the Lisbon Treaty it will take place under the former co-decision procedure (now the so-called ordinary legislative procedure), where a part of the decision-making competence rests on the shoulders of the European Parliament. This means that this process may be longer and less predictable when compared to the existing practice, and that the responsibility for the final decisions on the future of the CAP will be equally shared by the Ministers of Agriculture and MEPs.

The European Parliament is active in the discussion on the future of the CAP. In November 2009, The EP's Committee of Agriculture and Rural Development started the first examinations related to this topic. The effect of the works carried out in the first half of 2010 was the adoption, on 8 July 2010, of the resolution on the future of the CAP. This document reflects the position of the MEPs in the debate on the reform of the CAP. EP stressed that the European model of agriculture not only ensures the European food security but also performs many other important public functions, contributing to sustainable development of the entire EU as well as to the implementation of the objectives contained in the Europe 2020 strategy. MEPs opted for the strong CAP financed, to an appropriate extent, from the EU budget, including maintenance of the current structure of this policy based on two pillars and retainment of market instruments as a "safety net". It was also stressed that the system of direct payments based on historical criteria should not be continued.

In April 2010, the EU Commissioner for Agriculture and Rural Development, Dacian Ciolos, initiated public consultations on the future, principles and objectives of the Common Agricultural Policy. By 11 June, interested persons and organisations were able to communicate their views on the future of the CAP, its objectives and principles by way of answering four questions prepared by the European Commission on the website. On 19-20 July 2010, a conference took place in Brussels at which submitted suggestions and opinions were summarized. Generally, within the framework of the consultations almost 5,5 thousand answers were given, out of which more than 1 thousand came from Poland. Opinions collected during the consultation process are to contribute to the process of developing the shape of the future Common Agricultural Policy. Most of the consultation partici-

<sup>1</sup> The complete text of The position of the Government of the Republic of Poland on the future of the Common Agricultural Policy after 2013 adopted by the Council of Ministers on 12 June 2009 may be found on the MARD website (www.minrol.gov.pl) in the tab "CAP after 2013".

pants expressed the opinion that the EU agricultural policy should be fully implemented at the Community level and its main tasks are ensuring the food security and providing public goods with respect to the environmental protection, climate and maintenance of vital rural areas. Answers provided by the Polish participants of the debate mostly agreed with the vision of the future CAP set out in the Position of the Government of the Republic of Poland on the future of the EU CAP after 2013 from June 2009.

## FISHERIES SUPPORT POLICY

The Polish fisheries sector made use of financial support under the Sectoral Operational Programme "Fisheries and Fish Processing 2004–2006" which ended on 30 June 2009 and the Operational Programme "Sustainable Development of the Fisheries Sector and Coastal Fishing Areas 2007–2013" (OP FISHERIES 2007-2013), which was approved by the EC in October 2008. The Agency for Restructuring and Modernisation of Agriculture is the paying agency for both of these programmes.

### Sectoral Operational Programme "Fisheries and Fish Processing 2004–2006"

Poland's accession to the European Union structures enabled the continuation of the modernisation process of the fish processing industry by means of the Sectoral Operational Programme "Fisheries and Fish Processing 2004-2006". In this programme, under the measure 3.4

### "Fish processing and market", 4 operations have been identified:

- ▶ 3.4.1. Increasing the production capacity (construction of processing plants or investments in existing processing plants).
- ▶ 3.4.2. Modernisation of existing processing plants without increasing the production capacity.
- ▶ 3.4.3. Construction of fish products wholesale sale facilities
- ▶ 3.4.4. Modernisation of existing fish products wholesale sale facilities.

Financial assistance for the implementation of projects with regard to fish processing and trade in fish products was granted to the applicant in the amount of up to 40% of the eligible costs of the project. In the case of projects which regarded devices reducing the negative impact on the environment or techniques aimed at reducing the negative impact on the environment, financial support could be even up to 70% of the eligible costs of the project.

From the beginning of the SOP functioning, enterprises dealing with fish processing and wholesale sale of fish and fish products have belonged to the group of the fish market participants which used EU funds in the most effective manner. In the entire programming period, companies belonging to the fish sector from the entire country have submitted 304 applications for co-financing for a total amount of PLN 386 million. As a result of verification of the submitted applications, 233 agreements for the total amount

of PLN 247 million were signed. As a result of the implemented projects, ARMA paid to beneficiaries over PLN 234 million. The financial limit allocated for this measure has been used in the 93%.

The largest number of projects – 75 – for a total amount of PLN 97,7 million have been implemented in the Pomorskie voivodeship out of which the own contribution of the beneficiaries amounted to PLN 139,4 million. The second place, in terms of the number of implemented projects, was taken by the Zachodniopomorskie voivodeship, where 58 projects for a total amount of PLN 71,9 million have been implemented, with the own contribution of the beneficiaries amounting to PLN 106,9 million.

The largest project has been implemented in the Zachodniopomorskie voivodeship. It has been implemented by the beneficiary from Koszalin and the project itself consisted in purchase of a production building and its adaptation to the needs of fish processing. The total cost of the implementation of this project amounted to PLN 57 million out of which the amount of co-financing amounted to PLN 22,8 million.

Implemented investment projects were very different, from purchase of means of external and internal transport, through purchase of complete technological lines: canned products production line, fish drying and smoking installation, fish products packing line, fish freezing and defrosting installation, process line for post-production waste management as well as production of ready-to-eat fish products. As part of purchase and assembly of additional equipment, entrepreneurs purchased, inter alia, electronic scales, high-pressure washing systems, water, gas, heating systems. Essential investments included also measures for improving the impact of plants on the environment. These projects were awarded with additional funds - instead of standard 40%, the beneficiary was reimbursed 70% of the eligible costs.

### Examples of the most frequently implemented investments:

- ▶ 136 implemented projects concerned purchasing machinery and equipping processing plants with modern production equipment (packing machines, forklifts, evisceration machinery, accessories for production lines),
- ▶ 57 projects covered purchase of means of transport (both internal and external),
- 38 projects consisted in performance of construction works (renovation of buildings, construction of warehouses, sanitary facilities, construction of cold stores),
- 25 implemented projects contributed to the environmental protection and reduction in the negative impact on the environment (reduction in energy and fossil fuel consumption, reduction in CO<sub>2</sub>

consumption, construction of sewage treatment plants, assembly of solar installations).

As a result, the production capacity increased in 48 companies, in 73 plants the infrastructure was modernised without increasing the production capacity. 5 new fish warehouses were built and 19 were modernised.

From the estimate data of the Sea Fisheries Institute it results that the volume of final output in fish processing increased from 301,9 thousand tons in 2004 to 380 thousand tons in 2009, while the value of final output, which in 2004 amounted to PLN 2,850 billion, reached PLN 4,374 billion in 2009.

At the end of 2009, the register of the General Veterinary Inspectorate (GVI) contained 248 processing plants authorised to trade in fish products throughout EU. In addition, the number of plants authorised to sell directly to local markets in the country increased. At the end of 2009, the GVI register contained already 211 business entities, when compared to 2006, when there were 56 entities.

The continuation of this trend of modernisation and improvement of the production and marketing chain is implemented under the measure 2.5 "Investments in processing and marketing", as part of the Operational Programme "Sustainable Development of the Fisheries Sector and Coastal Fishing Areas 2007–2013".

### Operational Programme "Sustainable Development of the Fisheries Sector and Coastal Fishing Areas 2007–2013"



Currently, assistance for the industry is continued under the OP "Sustainable development of the fisheries sector and coastal fishing areas (2007-2013)", in the priority axis 2, as the measure of 2.5 "Investments in processing and marketing". Under the new financial perspective, PLN 438 million have been allocated for this measure. At least 50% of this amount were intended for micro- and small enterprises. For those entities, the percentage of co-financing the implemented investment increased from 40%, as it was in the SOP, to 60%.

The continuation of modernisation of the processing sector under the Operational Programme shall be carried out through the implementation of the following objectives:

- increase in the potential of fish products processing and marketing of these products,
- reduction in the negative impact of fish products processing plants or of marketing of these products on the environment,
- improvement in the quality and competitiveness of processed and marketed fish products,
- maintenance or increase in the level of employment in the fish products processing industry and marketing of these products.

### The projects most frequently implemented under this measure are:

- construction of new or renovation of old buildings that are directly related to fish products processing or marketing of these products,
- purchase or replacement of equipment directly related to processing or marketing of these products,
- purchase of means of external transport refrigeration trucks or internal transport – forklifts,
- construction or renovation of social facilities for employees.

### **Examples of implemented investment projects:**

equipment for smokehouses, equipment for the fish salad process line, development of the warehouse area for fish storage, construction of the cold store, purchase of the technological line, equipping with the freezing tunnel or construction of the sewage pretreatment plant.

Under this measure, fish marketing is also supported for the purpose of placing high-quality food on the market and ensuring the product security. To this end, ARMA grants support for construction, modernisation and investments in equipping wholesale warehouses marketing fish products.

Under the measure 2.5, 291 applications for support for the amount of PLN 993 million were submitted which constitutes 226% of the limit allocated for the measure 2.5. In connection with such great interest, collection of applications under this measure has been closed. By the end of July 2010, 62 agreements for the amount of approx. PLN 73 million have been signed. During verification, 57 applications have been verified negatively and these applications have been rejected, while 16 applications have been withdrawn from further assessment upon request of the applicants.

Thanks to the technological progress in the recent years, increasing expectations of consumers and the process of adaptation to EU standards, the Polish fish processing industry becomes a modern and competitive food industry branch and measures from the EU funds are the main driving force making modernisation and improvement in this industry possible in such a short period of time.

## AGRICULTURAL INSTITUTIONS

### Agency for Restructuring and Modernisation of Agriculture



The Agency for Restructuring and Modernisation of Agriculture was set up on the basis of the act of 29 December 1993 (Dz. U. no. 12, item 22 of 1994) in order to support agriculture and rural areas development and modernisation. In the first period of functioning (1994-2002), ARMA granted support coming from the state budget in the form of subsidies to the interest rate on investment and capital credits. After Poland's accession to the EU structures, the scope of the Agency's activities has been substantially extended to include support for the instruments of the Common Agricultural Policy and Structural Funds.

Since 2007, in connection with the new financial perspective, the Agency has been responsible for two most important programs implementing the objectives of the community rural development policy and fisheries policy in Poland, i.e. Rural Development Programme for 2007-2013 and the Operational Programme "Sustainable Development of Fisheries Sector and Coastal Fishing Areas for 2007-2013". ARMA

- a paying agency for the instruments of the Common Agricultural Policy (RDP, direct payments);
- entity implementing the Rural Development Programme for 2007-2013;
- ▶ intermediary body for the Operational Programme "Sustainable Development of Fisheries Sector and Coastal Fishing Areas for 2007-2013";
- institution supporting the instruments of national

## By the end of 2009, the Agency for Restructuring and Modernisation of Agriculture has made the following payments:

- ▶ PLN 16,5 billion as part of national aid;
- ▶ PLN 44,2 billion to about 2 million entities as part of direct payments to agricultural land;
- PLN 433 million as part of financial support of the Common Fruit and Vegetable Market Organisation:

- PLN 1,1 million as part of the Common Fish Market Organisation;
- PLN 11,3 billion under the measures of RDP 2007-2013;
- ▶ PLN 197,9 million under the Operational Programme "Sustainable Development of Fisheries Sector and Coastal Fishing Areas for 2007-2013".

### In addition, ARMA has finished the operation of EU subsidy programmes of 2004–2006:

- ▶ from the Sectoral Operational Programme "Restructuring and modernisation of the food sector and rural development, 2004-2006", the Agency paid more than PLN 5,3 billion;
- from the Sectoral Operational Programme "Fisheries and Fish Processing 2004 2006", the Agency has paid PLN 1 billion.

In 2009, the process of accreditation of the Agency as a paying agency for RDP 2007-2013 was completed. The Agency has received full accreditation for all 21 measures of the programme and technical assistance.

In the same year, the Agency continued to raise the efficiency of making payments under individual support instruments, including mainly direct payments. It is proved, first of all, by reducing the time of making payments to the beneficiaries. By 31 December 2009, the Agency has made payments under the 2009 Campaign to almost 744 thousand farmers for the total amount of PLN 6,1 billion, i.e. for the amount higher by PLN 1,8 billion when compared to the same period (31.12.2008) of the previous year. Direct payments for 2009 were provided in the first instance to farmers whose holdings had suffered from natural disasters.

Moreover, in 2009 all the measures (apart from the measure 1.2. launched in 2008), under the axes of the Operational Programme "Sustainable Development of Fisheries Sector and Coastal Fishing Areas for the 2007-2013" implemented by the Agency, were launched.

### **Agricultural Market Agency (AMA)**



For 20 years, the Agricultural Market Agency (AMA) has conducted the activities for the purpose of stabilisation of the agri-food market situation. AMA was set up in 1990 to pursue the state intervention policy in the Polish agricultural market. Since

Poland's accession to the European Union, AMA has been operating in accordance with Community legislation and, as the accredited paying agency, it administers the Common Agricultural Policy (CAP) mechanisms financed and co-financed from the EU budget and the mechanisms financed from the national budget. The Agency's activities are aimed at agricultural producers, processors, exporters and – more and more widely – consumers.

### Within the framework of the statutory competence, the Agricultural Market Agency:

- pays financial funds to participants of the individual CAP mechanisms and national programmes administered by AMA,
- issues individual decisions addressed to the beneficiaries of these mechanisms,
- conducts checks confirming that entrepreneurs meet the conditions for participation in the mechanisms, including the right to receive financial funds or the right to produce certain products,
- administers financial funds coming from the EU funds, state budget and promotion funds for agrifood products,
- provides EC with the information concerning the implemented CAP mechanisms,
- informs the participants of the mechanisms of the decisions made at the Community level and concerning the support instruments under the CAP which are administered by AMA and of the conditions of participation in the individual mechanisms (through the information and publishing activities),
- collects, analyses, processes and provides the information of the Polish and foreign agri-food markets and also prepares forecasts of the situation in these markets,
- participates in the EU decision-making process with respect to the implemented tasks.

From Poland's accession to EU to the end of June 2010, AMA, as part of administering the Common Agricultural Policy mechanisms and national mechanisms, disbursed in total PLN 8,5 billion for the implementation of the entrusted tasks. In the recent years, there has been an increase in the scale of paying financial funds to the beneficiaries of the mechanisms administered by AMA. In 2009, the Agency paid out PLN 2,6 billion – the largest amount since the moment of accession. This amount was more than two times higher than in 2008 and almost three times higher than in 2007.

Financial support addressed to the beneficiaries is the measurable, but not the only effect of the tasks implemented by AMA. Payment of financial funds is accompanied by a series of administrative activities, related, *inter alia*, to production quota, execution of

technical checks, granting authorisations to warehouses and processing plants, issuing decisions and permissions and monitoring agricultural markets.

Entities participating in the mechanisms administered by AMA are obliged to register in the Central Register of Entrepreneurs kept by the Agency. From Poland's accession to EU to the end of June 2010, 559 thousand entrepreneurs were registered out of which, in 2009, 19,5 thousand new participants of the mechanisms were registered.

### In 2009 AMA's activities covered, by groups:

- 1 Intervention purchase and sale of agricultural products and their products in 2009, PLN 48,7 million were disbursed due to purchase, storage and transport of cereals. In 2010, the Agency continued intervention purchases of barley and wheat coming from the 2009 harvest, taking over, in the 2009/2010 economic season, 360,5 thousand tons for the purpose of stocks (when compared to 80,5 thousand tons in the previous economic season), out of which barley constituted 99,8%.
  - In connection with the unfavourable situation in the milk market, in 2009 AMA conducted the intervention activities whose scale was the largest since the moment of Poland's accession to EU. For the purpose of EU stocks, the Agency purchased 20,5 thousand tons of skimmed milk powder (SMP) and 1,9 thousand tons of butter. Due to intervention purchase and storage of SMP and butter PLN 177,8 million were disbursed. Intervention stocks of dairy products collected in 2009, in accordance with the EC decision, were mostly designed for distribution in 2010 as part of the implementation of the programme "Supply of food surplus to the most deprived persons in the European Union".
- 2 Support for the export on a basis of applications for refund payments, PLN 99,4 million were paid to entrepreneurs including, *inter alia*, the export of: sugar PLN 37,9 (settlement of refund applications submitted to the Agency before their suspension by EC), beef, veal and pork PLN 27,6 million, milk and milk products PLN 20 million, non-Annex I processed goods (such as: yoghurt, cakes, chocolate, ice cream, beverages) PLN 12,9 million. Also, refund payments to the export of poultry and eggs were paid.
- 3 Support for consumption each year, the AMA's activity oriented towards pro-social activities aimed at, inter alia, increased consumption of selected agri-food products, shaping the proper consumption model and granting food support tends to increase.
- "Glass of Milk" programme the primary objective of the programme is to promote the rules of

- healthy diet and increased consumption of milk and milk products among children and adolescents. In 2009, the Agency made payments to consumption of milk and milk products in primary schools (financed from the national budget) amounting to PLN 147,5 million and payments to consumption of milk and milk products in educational establishments (financed from the EU budget) amounting to PLN 50,2 million. In 2009, AMA disbursed the largest amount on support for consumption of milk and dairy products since the moment of accession (by about 24% more than in 2008 and over 10 times more than in 2007). In addition, in 2009, co-financing for the programme from the Dairy Promotion Fund<sup>2</sup> (administered by the Agency) amounted to PLN 4,1 million. In the 2009/2010 school year, more than 2,8 million pupils made use of the "Glass of Milk" programme, i.e. by about 17% more than in the previous school year and by 27% more than in the 2007/2008 school year. They attended 17,2 thousand educational establishments (by over 21% more than in the 2008/2009 school year and by 43% more than in the 2007/2008 school year).
- ▶ School Fruit Scheme the objective of the program launched as from the school year 2009/2010 is shaping nutritional habits in children by increasing the share of fruit and vegetables in their daily diet as well as promoting healthy nutrition through educational activities implemented in primary schools. As part of the programme, the pupils of grades I-III in primary schools may eat fruit (apples, pears, strawberries), vegetables (carrots, peppers, radishes) as well as fruit juices, vegetable juices or fruit and vegetable juices they are provided with free of charge. In the second semester of the 2009/2010 school year, deliveries were made to 5,6 thousand primary schools (by 166% more than in the first semester), and fruit and vegetables were eaten by 570 thousand children (by about 130% of children more than in the first semester), i.e. 53% of the target group of students covered by the programme during the school year in question. The budget for the programme for Poland in the 2009/2010 school year was fixed by EC at EUR 12,3 million, in 75% it is financed from EU funds (EUR 9,2 million), and in 25% from the state budget (EUR 3,1 million).
- ▶ Programme of food support for the most deprived people in EU by the agency of charitable organisations such as: the Federation of Polish Food Banks, Caritas Poland, Polish Red Cross or Polish

<sup>2</sup> Renamed as the Milk Promotion Fund Since July 2009

Committee of Social Assistance, each year AMA implements a scheme of providing food to the most needy persons. Under the programme, in 2009 the Agency disbursed PLN 286,9 million. 136,6 thousand tons of ready-made food products were delivered (*inter alia*, UHT milk, white sugar, wheat flour, pasta, jam, cornflakes) to almost 4 million people in need. As part of the implementation of six programmes related to support for the most deprived persons in EU, more than 460 thousand tons of ready-made food products have been delivered to people in need since the moment of accession.

Subsidies to purchase of butter by non-profit institutions and organisations (such as nurseries, kindergartens, schools, social care centres, hostels and accommodation centres for the homeless) – in 2009, AMA paid PLN 119 thousand to 72,1 tons of butter.

### 4 Producer support programmes/mechanisms

- Subsidies to seed since 2007, AMA has been conducting the activities aimed at increasing the quantity of high quality seed in Polish agricultural holdings through reimbursing farmers partial costs of purchase of basic or certified seed. The Agency grants financial support under de minimis aid in agriculture, i.e. aid whose amount does not cause disturbances in the functioning of the Single European Market. In 2009, about 50 thousand agricultural producers received subsidies to seed from AMA. Expenditure on financial support for purchase of high-quality seed amounted to PLN 60,3 mln including PLN 59 million under de minimis aid in agriculture and PLN 1,3 million for farmers who incurred losses in crops caused by the drought in the 2008. Financial support granted by AMA affects the increase in farmers' interest in application of certified seed. When compared to the number of applications from 2007, i.e. the first year of granting subsidies, the number of applications submitted in 2010 increased more than 3 times.
- Compensations for the discontinuation of milk quotas – in 2009, semi-subsistence milk producers were paid PLN 37,4 million for the discontinuation of milk quotas which was to facilitate the change in the production type by these holdings.
- Special support for the dairy market the Agency was obliged to pay EUR 20 million granted by EC to milk producers who incurred losses as a result of the economic crisis. By the end of June 2009, AMA completed the process of paying the abovementioned funds. Polish milk producers received support in the amount of PLN 82,9 million.
- ▶ **Support for the bee products market** in 2009, under the National Apiculture Programme, AMA

- paid entitled entities, i.e. beekeeping associations, societies, organisations and cooperatives, PLN 16,6 million, i.e. by about 11% more than in the previous year. Most funds were disbursed on purchase of bees and varroacides (94% of total paid funds). Also, conduction of trainings, hiring vehicles for transporting beehives and purchase of laboratory equipment were co-financed.
- Support for planting perennial energy crops (willow, poplar, miscanthus and Virginia fanpetals) support covered 1,2 thousand hectares of these crops (almost 2 times more than in 2008), with the largest area occupied by willow and miscanthus. Farmers were granted support from the national budget in the amount of PLN 5,5 million and it was nearly by 63% more than in the previous year.
- Restructuring the sugar industry in 2009, AMA paid support for sugar producers in the amount of PLN 1,286,9 million. Sugar producers transferred the due part of support to 26,6 thousand of plantators (PLN 477 million) and 94 service providers. The Agency implements the tasks resulting from the National Restructuring Programme and consisting in co-financing purchase of machinery and equipment under the measure "Modernisation of agricultural holdings" and supporting investments related to processing agricultural products for energy purposes. The deadline for completing investments covered by NRP expires on 30 September 2011 and financial funds within the framework of support for diversification may be paid until 30 September 2012.

In 2009, the Agency collected restructuring amounts from sugar and isoglucose producers amounting to PLN 703,3 million as well as PLN 58,2 million due to the production levy on sugar and isoglucose quota production.

### 5 Promotion and information activities

 Support for promotion and information activities in the markets of selected agricultural products

– administration of the mechanism creates opportunities for acquisition of substantial financial funds allowing entrepreneurs to compete in the global market in a more effective manner. These activities are also aimed at strengthening the image of exceptional Polish products in consumers' minds. Promotion of agricultural products under the mechanism is possible in the internal EU market as well as in the non-EU markets. Within the framework of the activities carried out in 2009, the Agency participated in the implementation of both continued and commenced programmes: "Organic farming", "Meat and its products – tradition and taste", "Table full of tastes", "Honey sweetened

life", "I count on milk and milk products", "Vegetables and fruit 5 x a day". In 2009, the Agency disbursed PLN 24.3 million on the implementation of the above-mentioned programmes. This was the largest amount paid since the moment of Poland's accession to EU, nearly 2 times higher than in 2008. AMA receives proposals of another promotion and information programmes which are provided by the Agency to EC for examination. In June 2010, EC accepted "Information campaign on pork (fresh, chilled or frozen) produced in accordance with the national quality system Pork Quality System (PQS)".

- ▶ Handling promotion funds for agri-food products - pursuant to the act on the promotion funds for agri-food products, since 1 July 2009 9 separate funds have been established for promoting agrifood products, i.e.: milk, pork, beef, horsemeat, sheep meat, poultry, cereals and cereal products, fruit and vegetables and fish. The activities carried out under these funds aim at stimulating the increase in consumption and promoting agri-food products both in domestic and foreign markets. Individual promotion funds are supported from contributions charged and collected from entities which sell goods. As of 31.12.2009, a total amount of PLN 16,3 million has been deposited in the bank accounts of the funds. The Agency's tasks include, inter alia: administering promotion funds on a basis of the resolutions of the fund managing commissions, ensuring legal and technical and office assistance for both the funds and managing commissions.
- Promotion and information activities under RDP 2007-2013 - the Agency participates in the tasks delegated as part of promotion and information activities under RDP 2007-2013, acting as the implementing entity. AMA receives and examines applications regarding measures promoting products produced under high quality food systems, such as: organic farming products, integrated production products, products produced under the "Quality Tradition" system as well as products entered in the following registers: traditional specialities guaranteed, protected designations of origin and protected geographical indications. As part of the above-mentioned measures, the beneficiaries may apply for reimbursement of even up to 70% of the costs incurred for the implementation of promotional campaigns.
- 6 Payments for raw tobacco producers and starch potato producers – in accordance with the system of complementary national direct payments adopted by Poland, AMA implements payments related

and unrelated to production in the potato starch sector and tobacco sector. In 2009, agricultural producers received due to this the greatest support from the moment of accession, amounting to PLN 353,9 million. It was nearly by 9% more than in the previous year.

- 7 Subsidies to production and processing in 2009, AMA granted subsidies amounting to PLN 8,3 million to starch producers as part of potato starch production quotas, PLN 0,6 million to processing flax and hemp straw for fibre and PLN 0,5 million to production of 4,1 thousand tons of dried fodder.
- 8 Systems of limitation of production the Agency's activities with regard to granting producers rights to produce under the limits and monitoring their use are implemented in the milk, potato starch and sugar markets (sugar production quotas are granted by MARD). Potato starch producers, whose participation in the quota system is voluntary, receive support in a form of subsidies to production.

As part of managing the milk production quota system, AMA conducts the activities regarding, *inter alia*: registration of applications and issuing decisions on granting or withdrawing individual milk quotas, monitoring the volume of purchase by suppliers in a given quota year and the level of the use of production limits, handling transfers and conversion of individual quotas, monitoring the number of wholesale and direct suppliers, control of the quantity of milk marketed in a given quota year, monitoring the fat content in purchased milk, registration of milk purchasers and distribution of the national reserve of the national reference quantity.

### 9 Administration activities within the framework of monitoring and control of production, processing and foreign trade

Apart from payments to the beneficiaries of the CAP mechanisms and the national financial funds and of the measures related to limiting (quoting) production of certain agri-food products, the Agency's tasks include conduction of technical activities necessary for the proper functioning of the mechanisms and monitoring activities required by the provisions of the EU with regard to certain markets. These tasks include:

administration of foreign trade – in 2009, the Agency issued 3,2 thousand export and import licences for agri-food products, out of which 2,2 thousand regarded the export with refund to the non-EU countries,

#### **AGRICULTURAL INSTITUTIONS**

- administration of distribution of fruit and vegetables not intended for sale,
- administration of vine and wine production potential in Poland,
- issuing quality certificates for butter and SMP intended for the use under the CAP mechanisms in other EU Member States,
- monitoring of sugar and isoglucose production,
- monitoring and controlling the use of non-quota sugar and non-quota isoglucose as part of deliveries to the outermost regions of EU and the export outside EU,
- monitoring and controlling the use of industrial sugar,
- monitoring and controlling raw cane sugar refining,
- controlling the use of energy crops,
- monitoring the market of biocomponents and liquid biofuels,
- controlling the use of raw materials cultivated on set-aside land,
- administration of the contracting, receipt and processing of raw tobacco,

New activities within the framework of foreign trade in the sugar market, which are administered by AMA, are the import of sugar for refining (since June 2010) and export of non-quota sugar (since October 2009).

A new task in the field of renewable energy sources, for the implementation of which at the beginning of 2011 the Agency is preparing, is keeping a register of enterprises conducting the business activity in the field of production of agricultural biogas plants and generation of electricity from agricultural biogas.

In 2009, the Agricultural Market Agency implemented the Quality Management System compliant with the requirements of the PN-EN ISO 9001: 2009 standard and obtained the certificates of the Polish Centre for Testing and Certification S.A. and IQNet (The International Certification Network), confirming compliance with the requirements of the abovementioned standard with regard to administration of the CAP mechanisms, national mechanisms and promotion funds. The system applied in AMA improves collaboration at every organisational level, favours reduction in administrative burdens imposed on the beneficiaries and improvement of the quality of the performed tasks.

In 2009, the Ministry of Finance executed the control activities in AMA. As a result of these activities, the Agency received the European Agricultural Guarantee Fund Certification of Annual Accounts issued by the Minister of Finance and confirming correctness of payments made by AMA in the financial year 2009.

Technical control services, operating within the Agency's organisational structure and located across Poland allow to ensure the appropriate level of verification of the beneficiaries' rights to receive financial funds. These services perform checking and verification activities either at the beneficiary's premises or in the sites where the production or processing process takes place. From Poland's accession to EU to the end of June 2010, AMA inspectors executed almost 129 thousand controls, including 22,9 thousand in 2009.

Moreover, AMA conducts the information activities enabling wide access to the information of the mechanisms administered by the Agency and the conditions for participation in these mechanisms and of the situation in the agri-food market for the best possible preparation of the beneficiaries for the use of EU and national funds. In addition, the Agency collects, analyses, processes and provides market data on agricultural products and foodstuffs, *inter alia*, by way of publications (brochures and AMA's information bulletin) as well as market reports and analytical and prognostic studies the supply and demand situation and the price situation in the agricultural market.

The Agricultural Market Agency is the active and noticeable partner within the framework of international projects and undertakings having a nature of interinstitutional cooperation. It undertakes a series of actions aimed at supporting Polish agri-food entrepreneurs in their activity related to foreign trade.

### **Agricultural Property Agency**



The Agricultural Property Agency is an institution representing the State Treasury in respect of state property in agriculture. Until mid-July 2003, it operated under the name of Agricultural Property Agency of the State Treasury; it was set up in October 1991. The property taken over by the Agency, mainly after liquidation of state-owned agricultural holdings and the State Land Fund form the Agricultural Property Stock of the State Treasury.

The Agency is self-financing (i.e. does not receive budget allocations for its expenditures and functioning). The costs of including the property of the State Treasury in the Agricultural Property Stock, restructuring thereof, preparation to disposal (e.g. geodetic works, establishing land and mortgage registers, procurement announcements), securing objects of historical value, maintenance of non-production property (e.g. a large part of residential facilities) etc. as well as of other running costs of the Agency are

### **AGRICULTURAL INSTITUTIONS**

fully financed from revenues generated by its statutory activity. Moreover, as from 2004 the Agency has supplied the state budget with the amount resulting from the difference between income obtained from the management of the Property Stock in a given economic year and the funds spent for the implementation of statutory tasks. The Agency supplied the state budget with over PLN 4.8 billion. In addition, APA has been obliged to transfer revenues from selling the properties of the Property Stock to the Compensation Fund, from which compensations are paid to people who lost their properties located in east of the Bug river after WWII (the so-called "Zabużanie") for leaving their properties outside the present borders of the Republic of Poland. Since 2006, APA has supplied the Fund with more than PLN 2.2 billion. Total payments to the state budget and the Compensation Fund amounted to PLN 7 billion.

The Agency implements the tasks resulting from statutory provisions and other regulations with regard to:

- 1 Creation and improvement of the area structure of family-run holdings;
- 2 Creation of conditions conducive to the rational use of the production potential of the Agricultural Property Stock of the State Treasury;
- 3 Restructuring and privatisation of State Treasury property used for agricultural purposes;
- 4 Trade in real property and other elements of property of the State Treasury used for agricultural purposes;
- 5 Administration of property resources of the State Treasury intended for agricultural purposes;
- **6** Securing the property of the State Treasury;
- 7 Initiation of management and agricultural work on land owned by the State Treasury and support for setting up private agricultural holdings on land owned by the State Treasury.

Moreover, the Agency implements the tasks defined by separate regulations, particularly the Act on the establishment of the agrarian system. It is also planned that the Agency will participate in the implementation of the "Act on re-privatisation." It is expected that revenues from sale of at least 500-600 thousand ha is to be intended for the implementation of this objective, i.e. – considering present agricultural land prices – the amount of about PLN 6 billion. The Agency received almost 3 thousand applications on the issue.

The Agency included 4.7 million ha of land in the Property Stock. Apart from land, other property was included in the Stock (mainly from former stateowned agricultural holdings), with book value of PLN 8.6 billion and liabilities of the former state-owned agricultural holdings towards about 30 thousand enti-

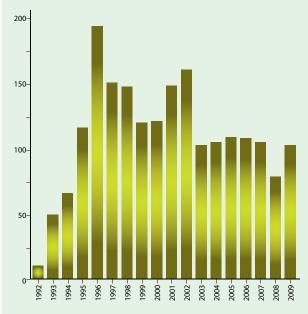


Fig. 21.

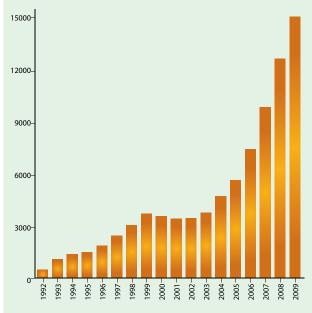


Fig. 22. Source: APA data.

ties, amounting in total to PLN 2 billion. The liabilities were fully settled with the use of funds acquired through privatisation.

The material structure of the property taken over by the Agency includes: 336.2 thousand flats with accompanying infrastructure (boiler rooms, pump plants, water treatment plants, etc.) as well as buildings used for the purposes of the agricultural processing industry, trade and services, including, *inter alia*, 858 distilleries, wineries and breweries, 269 meat processing plants and slaughterhouses, 898 grain and green crop driers, 717 fodder mixing facilities, 31 mills and kasha plants, 75 refrigeration plants as well as 415 shops, 147 hotels, inns, restaurants and bars, 672 social, cultural or sport establishments.

The predominant method in which the property included in the Agricultural Property Stock is distributed consists in sale and lease. They are organised mainly through unrestricted or restricted tenders. In total, from the beginning of its activity until the end of June 2010, more than 920 thousand tenders were conducted. In that period, the Agency sold more than 2 million ha, mostly in the following voivodeships: Warmińsko-Mazurskie, Zachodniopomorskie, Pomorskie, Dolnośląskie and Lubuskie [Fig. 21].

It should be emphasised that a systematic price increase is visible in agricultural land sale transactions organised by the Agency after 2001 [Fig. 2]. In 2009, prices maintained the upward trend and reached the average level of PLN 14,932 per 1 ha. [Fig. 22]

Irrespective of sales, by the end of 2009 the Agency permanently transferred ca. 525 thousand ha of which, *inter alia*: 151 thousand ha to the State Forests, 50.3 thousand ha to local governments, about 84 thousand ha to legal persons established by Churches of various denominations, about 149.8 thousand ha to regional water management boards (land located under lakes with running water) and almost 16 thousand ha were transferred to companies as contributions. A total of 75 thousand ha were distributed among other entitled entities and in other forms (converting perpetual usufruct into ownership, land consolidation and exchange, annulment of co-ownership, etc.).

As concerns lease, a decrease in interest in this form of distribution of land included in the Property Stock has been visible recently. For lease contracts concluded in 2009 by APA, the average lease fee amounted to (in wheat equivalent) 5.8 dt of wheat per 1 ha. It was lower than the average fee in 2008 and 2009. It should be noted that the average fee for agricultural land (excluding the fee for components) for all valid lease contracts at the end of 2009 amounted to the equivalent of 2.8 dt of wheat per 1 ha.

At the end of June 2010, the Property Stock covered about 2.17 million ha, out of which about 1.65

million ha were leased; 87 thousand ha were held in permanent administration and perpetual usufruct; 100 thousand ha were "alien land."

Moreover, the Agency has in its Stock about 100 thousand ha of non-agricultural land, including about 66 thousand ha located within the administrative limits of cities. They are parcels designed for industrial, commercial, service, housing, sports and recreational development. Their location is attractive, their legal status is regulated and the procedures of purchase are clear. In 2009, the Agency sold more than 1 thousand ha of such land, for the total amount of PLN 163 million.

APA exercises supervision over the activities of 50 companies dealing with breeding of plants and animals which are of special importance to the national economy. These companies conduct creative and preservative breeding and collect the most valuable genetic material of plants and animals which determines biological progress. They play the leading role in creating and disseminating biological progress in Polish agriculture.

As it was mentioned before, the Agency is a task-implementing institution. Its main task consists in privatisation of the state-owned property in agriculture and pending the completion of the process – rational management of entrusted property.

In retrospect, it should be noted that such complex and diversified tasks performed by the Agricultural Property Agency were not yet performed by any other public institution set up during the systemic transformation of the Polish economy or in the economies of the new EU countries. As indicated by the results of rankings co-organised by the Agency, the ownership transformations it has carried out in the last 18 years resulted in, *inter alia*, creation of strong holdings competing on the EU market and strengthening of Polish breeding through existing strategic companies.

Although the Agency already permanently distributed more than 50% of the area of State Treasury property included in the Property Stock, still remains an important tool to support agricultural policy (for example, in establishing the agrarian system) and to pursue essential public objectives, as the aforementioned participation in the implementation of the Government's obligations towards the so-called "Zabużanie" and persons lodging re-privatisation claims. It should be noted here that in view of reduction in the available area of the Property Stock, the major emphasis shifts from "land sharing" for various purposes to "financial support" for the implementation of these objectives. This, in turn, forces intensification of selling the land of the Property Stock. This task is becoming increasingly difficult and requiring great prudence as development of road infrastructure, construction of new industrial plants, commercial facilities, warehouses, storage facilities, retention tanks, extraction of minerals all make it necessary to reserve land for these purposes – which in practice often means their transfer to entitled entities free of charge.

The task of intensifying sale of Property Stock properties encounters the obstacles resulting from certain legal regulations. The Agency has a limited influence on their removal as most of them can be removed only by new regulations or amendments to existing legislation (limits of selling farmland to a single buyer, spatial planning). Nevertheless, the Agency is also involved in the process of amending the legal acts governing privatisation of the Property Stock, inter alia, leading to facilitation of land acquisition by family-run holdings and agricultural entrepreneurs running larger agricultural holdings and creating jobs for persons from former state-owned agricultural holdings. The Agency is also ready, after the introduction of appropriate legal solutions, to implement the programme of managing land remaining in the Property Stock so that it could be transferred to those who would cultivate it.

### **Agricultural Social Insurance Fund**



The Agricultural Social Insurance Fund (KRUS) is a social insurance institution which manages the system of social insurance for farmers which is separate from the general insurance system, pursuant to the Act of 20 December 1990 on social insurance for farmers (Dz. U. of 2008, No 50, item 291, as amended). The President of the Fund is a central authority of government administration subordinate to the minister competent for rural development. The tasks of the Fund include the following:

- ▶ Dealing with farmers and persons cooperating with them within the agricultural activity (spouses and household members) in relation to inclusion into the social insurance scheme and payment of insurance premiums;
- Granting and payment of financial benefits from insurance;
- Medical certification in order to determine eligibility of the insured to benefits depending on total incapacity to work in an agricultural holding or assessment of the health condition;

- Carrying out activities aiming at the prevention of accidents at farm work and occupational diseases as well as promoting health;
- Provision of therapeutic rehabilitation to persons eligible to Fund benefits with total incapacity for work in an agricultural holding but with a chance for recovery if the person undergoes treatment and rehabilitation or to persons at risk of total incapacity to work in an agricultural holding.
- As at the end of 2009, around 1.57 million persons were covered by the social security scheme and around 1.42 million received pensions from the insurance.
- Moreover, the Fund fulfils other tasks, gradually commissioned by the state on the basis of separate regulations. These tasks include, inter alia, the following:
- Dealing with health insurance pursuant to the Act of 27 August 2004 on health care benefits financed from public funds which consists, inter alia, in paying health insurance contributions for persons entitled to farmers' social insurance (financed from the state budget) and for farmer pensioners to the National Health Fund (NFZ); the Agricultural Social Insurance Fund provides services in this respect to about 2.9 million people covered by the health insurance scheme.
- Payment of civic financial benefits that is, inter alia: benefits for veterans, lump sums for energy, benefits for former miners-soldiers, benefits for secret teaching, for victims of the Third Reich and the USSR.

Since 2004, the Fund has been participating in the implementation of tasks concerning coordination of social security in European Union Member States (EEA and Switzerland) resulting presently from the provisions of Regulations No. 883/2004 and 987/2009 of the European Parliament and of the Council (EEC).

The social insurance scheme for farmers is financed on a basis of 3 state special purpose funds: Pension Fund, Prevention and Rehabilitation Fund and Administrative Fund as well as the non-budgetary Contribution Fund.

The Pension Fund is designed to finance pension and health insurance contributions for farmers. The Pension Fund is created on the basis of contributions paid by farmers for pension insurance and a budgetary subsidy. In 2010, this subsidy will amount to about PLN 16 billion.

The Prevention and Rehabilitation Fund serves to finance the activities of the Agricultural Social Insurance Fund with regard to accident prevention and therapeutic rehabilitation. This Fund is created on a basis of deduction from the Contribution Fund and a budgetary subsidy. In 2010, this subsidy will amount to PLN 6 million.

The Contribution Fund is a non-budgetary special purpose fund with legal personality. The fund finances benefits from accident, sickness and maternity insurance. The Fund is a self-financing fund, which means that benefits financed from the Fund and related to risk of an accident at farm work, sickness and maternity are entirely covered by contributions paid by insured farmers.

Social insurance of farmers is implemented by the Agricultural Social Insurance Fund within its organisational structure consisting of: the Headquarters, regional branches covering particular voivodeships and local branches covering several gminas. In total, the Agricultural Social Insurance Fund has about 270 organisational units throughout Poland.

The Agricultural Social Insurance Fund is a member of the largest international associations bringing together social security institutions around the globe, such as: ISSA (International Social Security Association bringing together social security institutions from more than 130 countries) – since 1992, and IAAMRH (International Association of Agricultural Medicine and Rural Health) dealing with agricultural medicine. Since September 2009, the current President of KRUS, Mr Henryk Smolarz, has been the Chairperson of the Agriculture Section of ISSA, while Mr Bogusław Ulijasz, his Deputy, has been the Secretary General.

### **Agricultural consultancy**

Apart from agricultural consultancy centres, consultancy services in Poland are provided by: agricultural chambers, agricultural supply companies, research and scientific institutes, private consultancy companies, associations and foundations as well as self-employed natural persons.

The basic consultancy institutions, however, are agricultural consultancy centres (offering services to over 630 thousand farmers out of the total number of 680 thousand farmers using consultancy services – source: Central Statistical Office).

Agricultural consultancy entities are legal persons offering agricultural consultancy services covering the activities in the field of agriculture, rural development, agricultural markets and rural households. They aim at improvement of agricultural income, enhancement of market competitiveness of agricultural holdings, supporting sustainable development of rural areas and enhancing professional qualifications of farmers and the rural population.

Pursuant to the Act on agricultural consultancy entities, they include the Agricultural Advisory Centre in Brwinów, together with its three branches in Poznań, Krakow and Radom, subordinate to the min-

ister competent for rural development, as well as 16 regional agricultural consultancy centres subordinate to territorially competent voivodeship parliaments.

Statutory tasks of these entities are divided into three areas:

- Educational: carrying out educational programmes, frequently in cooperation with agricultural institutes and universities, aimed at providing farmers and the rural population with lifelong learning opportunities;
- Informational: publishing magazines, brochures and leaflets, maintaining websites, organising fairs, exhibitions and competitions as well as direct participation in TV and radio programmes on the regional and national level,
- ▶ Consultancy: providing consultancy services (in various forms individual, group and Internet-based advisory services).

The Agricultural Advisory Centre, in turn, implements tasks supporting voivodeship centres with regard to:

- 1) Preparing and introducing uniform methods of operation with regard to the tasks they implement;
- Preparing and forwarding to voivodeship centres training and information materials, including those on support for agricultural holdings and agricultural production, financed or co-financed by the European Union or other national or foreign institutions;
- 3) Preparing analyses and forecasts on agricultural consultancy development;
- 4) Conducting trainings for employees of voivodeship centres:
- 5) Creating and managing a central information and database system for the purposes of consultancy services;
- 6) Coordinating tasks concerning organic farming implemented by voivodeship centres.

The Centre also performs tasks related to conducting inspections as to whether entities adhere to the conditions for provision of accredited consultancy services, on the conditions laid down in regulations on support for rural development financed by the European Agriculture Fund for Rural Development.

The consultancy system ensures that Poland has advisors who are properly prepared and who are included in the registers of the Advisory Centre according to the following specialisation (the number of persons as at 23 July 2010):

- agricultural advisors 3,486
- forestry advisors 474
- ▶ agri-environmental advisors 1,702
- ▶ nature experts 320

### **AGRICULTURAL INSTITUTIONS**

As at 23.07.2010, accreditations for providing cross-compliance consultancy services were held by 362 entities in total, including 270 forest divisions and 92 various private operators. Accreditations are granted on an on-going basis to entities which meet the requirements laid down in relevant regulations.

### **Agricultural schools**

Public agricultural schools are run by local selfgovernment units (mainly of the poviat level) and by the Minister of Agriculture and Rural Development. The Ministry of Agriculture runs 45 agricultural school complexes educating about 14 thousand students and employing ca. 1,400 teachers. The teaching facilities for practical learning comprise school workshops, laboratories for practical classes, school agricultural holdings, agricultural holdings of individual farmers, agricultural consultancy centres, food processing plants, hospitality establishments, scientific and research entities and universities. The schools run by the Ministry offer education in 27 professions in fields such as: agricultural production, horticulture, agricultural technology, agricultural processing, agribusiness, landscape development, rural tourism, catering services, inland fisheries, veterinary medicine, environmental engineering and land reclamation.

Running agricultural schools, the Minister of Agriculture and Rural Development has the opportunity of direct influence on the quality and effectiveness of agricultural education and thus of creating the staff policy for the agri-food sector. Agricultural schools are to provide their graduates with knowledge and professional skills enabling them to take up employment in the agricultural service sector and to compete effectively in the free market as well as to further their qualifications. In order to fully implement these assumptions, MARD acts to: modify specialisations and curricula with the aim of adjusting them to the changing conditions of production and life in rural areas; promote modular education; offer initial and inservice training for teachers of occupational subjects (the major role is played by teacher training centre subordinate to MARD - the National Centre of Agricultural Education in Brwinów); provide agricultural schools with appropriate teaching facilities for practical learning.

Agricultural schools run by the Ministry will foster rural development as they are becoming true agricultural education centres with good teaching facilities and properly prepared teachers, through organisation of various forms of education addressed to young people and adult rural population as well as cooperation with other entities acting for the benefit of the agri-food sector.



Fig. 23. Structure of organisation of agricultural sciences in Poland

Scientific entities  Employees	Research and development entities of MARD	Scientific entities of the Polish Academy of Sciences	Institutes subordina- te to other ministries	Universities	Total
Employees in total, including:	4 115	598	1 908	10 489	17 110
Professors	158	79	80	1 124	1 441
Scientists holding the dr hab. title	142	45	44	598	829
Scientists holding the dr degree	594	139	312	3 061	4 106

**Table 39.** Research and development personnel in agricultural sciences and related sciences

### **Research and development entities**

In Poland, research and development for the benefit of agriculture, agricultural markets, fisheries and rural development is pursued by:

- ▶ 13 research and development entities subordinate to the Minister of Agriculture and Rural Development, of which six hold the prestigious status of a National Research Institute (NRI):
- Institute of Agricultural and Food Economics NRI in Warsaw;
- Institute of Soil Science and Plant Cultivation NRI in Puławy;
- National Veterinary Research Institute in Puławy;
- National Research Institute of Animal Production NRI in Balice near Krakow;
- Institute of Plant Protection NRI in Poznań,
- Plant Breeding and Acclimatization Institute NRI in Radzikowo;
- Universities (with 47 faculties) reporting to the Minister of Science and Higher Education;
- ▶ 9 scientific institutions subordinate to the Polish Academy of Sciences.

Certain issues with regard to agricultural sciences and related sciences are also implemented by certain entities subordinate to other ministries, *inter alia*, of economy, environment, health or labour. The organisational structure of supervision of the statutory activity of the scientific and research entities in the field of agriculture, agricultural markets, fisheries and rural development and the basic financing conditions are presented in the **fig. 23**.

Funds for scientific, research and development activity in agriculture are derived from budgetary subsidies of the Ministry of Science and Higher Education. Due to gradual reduction in financing of their statutory activity from the budget of the Ministry of Science and Higher Education, scientific and research entities, including, in particular, research and development entities, acquire additional funds, *inter alia*, from participation in international programmes of science and technology cooperation, tasks commissioned by economic operators and other legally plausible sources such as: lease of the redundant property, interest rate on capital, credits, loans, etc.

Certain research and development entities receive funds from the budget of Minister of Agriculture and Rural Development for the implementation of multiannual programmes. Currently, research and development entities supervised by the Minister of Agriculture and Rural Development implement eight multiannual programmes aimed at monitoring transformations in the agri-food sector and in rural areas as well as defining of quality standards necessary to

establish the criteria of consumer-safe production in agriculture and food processing.

The scientific potential of the entities supporting the process of transformations in the agri-food sector is represented by more than 6,370 employees holding academic title and degrees, as presented in the table below. **Table 39.** 

In the framework of adapting the research and development potential of the Ministry of Agriculture to the conditions of cooperation with European Union partners in research and development entities of the Ministry of Agriculture and Rural Development, Centres of Excellence and Centres of Competence were established, inter alia: in the Plant Breeding and Acclimatization Institute - Crop Improvement Centre for Sustainable Agriculture (CICSA); in the Sea Fisheries Institute - Centre of Excellence in Marine Fisheries Sciences (POLMARF); in the Research Institute of Pomology and Floriculture - Research Centre of Excellence in Sustainable Pomology (PomoCentre); in the Institute of Soil Science and Plant Cultivation -Protection of Land and Water Quality and Sustainable Development of Rural Areas (PROLAND); in the Institute of Technology and Life Sciences - Renewable Energy Centre of Excellence and Competence in Poland (RECEPOL); in the Institute of Natural Fibres and Medicinal Plants - Medical plants in nutrition and medicine – a step towards integration of engineering with European standards (MEDNAM). Also, the Centre for Advanced Technologies is located in Skierniewice, at the Szczepan Pieniążek Research Institute of Pomology and Floriculture. Its future activities are to significantly improve the conditions for translating research results into practice. Research continues in the framework of the Virtual Institute of Sustainable Agriculture (WIRZ) which is a widely accessible, real-time electronic research and informational programme with a database updated on an ongoing basis.

The research and development entities of agriculture, agricultural markets and rural development have actively cooperated also under European Union Framework Programmes as well as under the ERANET and EUROAGRI Programme. Polish scientists have been coordinating tasks within the Working Group of research programme "Sustainable Agriculture in the Baltic Sea Basin" in the framework of the Standing Committee on Agricultural Research at the European Commission. It is planned to have the scientific community actively involved in work on the tasks resulting from the European Union Strategy for the Baltic Sea Region developed by the European Commission.

In May 2009, on the initiative of the Minister of Agriculture and Rural Development the 1st Congress of Agricultural Sciences was held in Puławy, during

which solutions were defined which may significantly contribute to complete integration of scientific policy with agricultural policy. The conclusions presented during panel sessions and plenary speeches referred not only to the current economic and social needs, but also pointed out the most important areas of scientific activity in agricultural sciences in the short and medium term. Appropriate coordination of activities of all the scientific and research entities working in the area of agricultural sciences and related sciences is very important to the future and economic and social development, for which the Minister of Agriculture and Rural Development is responsible. Well-implemented coordination should ensure better use of the intellectual potential, comprehensive and useful research and more rational use of funds from the State budget allocated for science.

The conclusions from the Congress indicate that research is necessary whose purpose would be to seek the best form of development of Polish agriculture, taking into account its regional conditions, rational management of resources of water, soil and air, search for new varieties of plants (including high-protein plants) resistant to stress caused by drought and pests. Research in the field of breeding should make use of the most recent global trends, including those covering the issues of genetically modified organisms (GMOs). Important problems highlighted during the Congress are the problems of infrastructure in agricultural holdings and in rural areas as well as ensuring the most favourable renewable energy sources. The debate during the Congress showed that seeking solutions for counteracting climate warming should be accompanied by research in all areas.

Taking into account forthcoming Polish Presidency in the second half of 2011 within the framework of the European Union, efforts were taken to organise the international conference entitled "Food and nutrition in the 21st century" in September 2011.

### ADDRESSES OF INSTITUTIONS FOR **AGRICULTURE**

### MINISTERSTWO ROLNICTWA I ROZWOJU WSI (MRiRW)

00-930 Warszawa, ul. Wspólna 30 tel/fax + 48 22 623 10 00; + 48 22 623 27 50

http://www.minrol.gov.pl

e-mail: kancelaria@minrol.gov.pl

### AGENCIA RYNKU ROLNEGO (ARR)

Biuro Informacji i Promocji 00-400 Warszawa, ul. Nowy Świat 6/12 tel./fax + 48 22 661 72 72; + 48 22 628 93 53

http://www.arr.gov.pl e-mail: tpi@arr.gov.pl

### AGENCJA RESTRUKTURYZACJI I MODERNIZACJI ROLNICTWA (ARIMR)

02-822 Warszawa, ul. Poleczki 33 tel./fax + 48 22 318 53 30; + 48 22 318 42 20

http://www.arimr.gov.pl e-mail:info@arimr.gov.pl

### AGENCJA NIERUCHOMOŚCI **ROLNYCH (ANR)**

00-215 Warszawa, ul. Dolańskiego 2 tel./fax + 48 22 635 80 09; + 48 22 635 00 60

http://www.anr.gov.pl e-mail: anr@anr.gov.pl

### **FUNDACJA PROGRAMÓW POMOCY DLA ROLNICTWA (FAPA)**

00-930 Warszawa, ul. Wspólna 30 tel./fax + 48 22 623 16 03; + 48 22 623 19 09

http://www.fapa.com.pl e-mail: fapa@fapa.com.pl

### KASA ROLNICZEGO UBEZPIECZENIA **SPOŁECZNEGO (KRUS)**

00-608 Warszawa, Al. Niepodległości 190 tel./fax + 48 22 592 65 90; + 48 22 825 95 97 http://www.krus.gov.pl e-mail: centrala@krus.gov.pl

### GŁÓWNY INSPEKTORAT JAKOŚCI HANDLOWEJ ARTYKUŁÓW ROLNO -SPOŻYWCZYCH (GIJHARS)

00-930 Warszawa, ul. Wspólna 30 tel./fax + 48 22 623 29 00; + 48 22 623 29 98

http://www.ijhar-s.gov.pl e-mail: sekretariat@ijhar-s.gov.pl

### **INSPEKCJA WETERYNARYJNA** - GŁÓWNY INSPEKTORAT WETERYNARII (GIW)

00-930 Warszawa, ul. Wspólna 30 tel./fax + 48 22 623 20 88; +48 22 623 14 08

http://www.wetgiw.gov.pl e-mail: wet@wetgiw.gov.pl

### PAŃSTWOWA INSPEKCJA OCHRONY **ROŚLIN I NASIENNICTWA(PIORIN)**

00-930 Warszawa, ul. Wspólna 30 tel./fax + 48 22 623 23 02; + 48 22 623 23 04 http://www.piorin.gov.pl

e-mail: gi@piorin.gov.pl

### **CENTRUM DORADZTWA ROLNICZEGO W BRWINOWIE**

05-840 Brwinów, ul. Pszczelińska 99 tel./fax + 48 22 729 66 34 (38); + 48 22 729 72 91

http://www.cdr.gov.pl

e-mail:: brwinow sekretariat@cdr.gov.pl

### KRAJOWA RADA IZB ROLNICZYCH

00-930 Warszawa, ul. Wspólna 30 tel./fax + 48 22 623 21 65; + 48 22 623 11 55

http://www.krir.republika.pl

e-mail krir@z.pl

### KRAJOWY ZWIĄZEK ROLNIKÓW, KÓŁEK I ORGANIZACII **ROLNICZYCH (KZRKIOR)**

00-582 Warszawa, Al. Szucha 16/42 tel./fax + 48 22 827 75 55; + 48 22 827 30 01

http://www.kolkarolnicze.pl e-mail: biuro@kolkarolnicze.pl