AGRICULTURE
AND FOOD ECONOMY IN POLAND

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

WARSAW 2011

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Dear readers!

Time is running fast. I would like to present to you another edition of 'Agriculture and food economy in Poland.

I believe that this publication is already well-known and even expected.

Each year we present synthetic information on changes taking place in the Polish agriculture, fisheries, processing and rural areas.

The Agricultural Census was carried out last year. The complete analysis of its results will document the changes that have occurred in the Polish agriculture over the last eight years, since the census in 2002, i.e. two years before Poland's accession to the European Union.

Preliminary data already reveal significant changes. The number of agricultural holdings declined by over 300 000, with the largest decrease recorded among farms with an area below 5 ha. This was accompanied by an increase in the number of holdings with an area exceeding 50 ha. The above changes point to an increasing specialization of agricultural production and positive transformations in the agrarian structure. This also confirms that we adopted the appropriate solutions related to the implementation of the Rural Development Programme. Two measures under the Programme, namely, "Early retirement" and "Setting up of young farmers" accelerated the change of generations in rural areas, as well as the changes in the number and area of agricultural holdings. Such transformations are beneficial from the point of view of agricultural productivity, since they result in the reduction of the costs of production and an increase in marketability of agricultural production. Therefore, the outlook for further development of international trade in agri-food products is optimistic. The balance of this trade is still positive for Poland and exceeds EUR 2.6 billion, with sales of over EUR 14 billion. There are no supply shortages on the domestic market, which is still dominated by Polish products.

Seven years of membership in the European Union have proved true the claim that Poland would not be flooded with food from the West after the accession. The opposite is taking place. Polish food products are enjoying an increasing popularity not only in the EU, but also beyond.

Further development depends on a wise and consistent reform of the Common Agricultural Policy which would make the policy conducive to growth, stimulating innovation and able to make the European agriculture competitive on the global market.

I deeply believe we can accomplish that objective, provided that we will not think only in terms of next election and will not focus only on our own countries. If we manage to rise above those limitations, the reform will beyond any doubt be profound and real, and will provide the next generation of the EU farmers with an opportunity for further development and efficient competing on the global market.

Marek Sawicki

General information about Poland

Poland is a country situated in Central Europe, with the territory of 312,700 km^2 (6th in the EU-27 and 68th in the world) and the population of 38.2 million (6th in the EU and 34th in the world).

From 1 May 2004, Poland has been a Member State of the European Union. In terms of total population, Poland ranks 6th among the 27 Member States, and in terms of the agricultural population it occupies the 1st position. As regards the number of agricultural holdings, Poland ranks 2nd (after Romania). The number of persons employed in agriculture, hunting, forestry and fisheries is 2.5 times higher than the percentage share of people employed in these sectors in the EU-27 (14.5% and 5.6%, respectively). Poland covers 7.2% of the total surface area of the EU and borders 7 countries – 4 EU Member States (Germany, Czech Republic, Slovakia and Lithuania) and 3 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, 1.463 nature reserves with the surface area of over 164 thousand ha, landscape parks with the surface area of nearly 2.607 thousand ha and 36.3 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 3.1% – 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 varied between 8.6°C and 9.4°C, whereas precipitation ranged between 609 mm and 717 mm. *Fig. 1.*

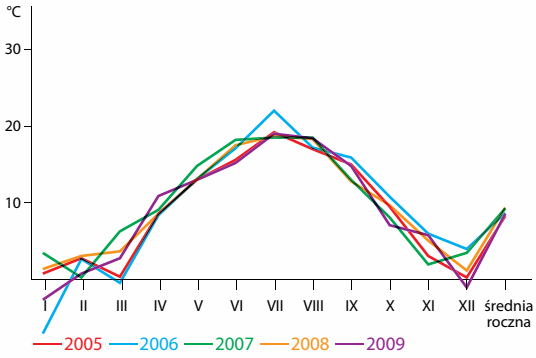


Fig. 1. Average monthly air temperatures in Poland (in °C); *Source: Central Statistical Office (CSO) – Agriculture, Warsaw 2009*

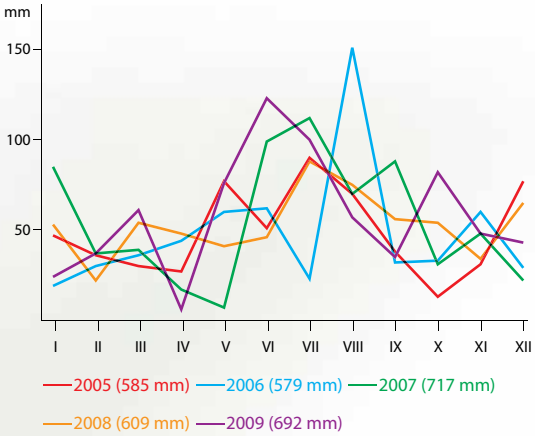
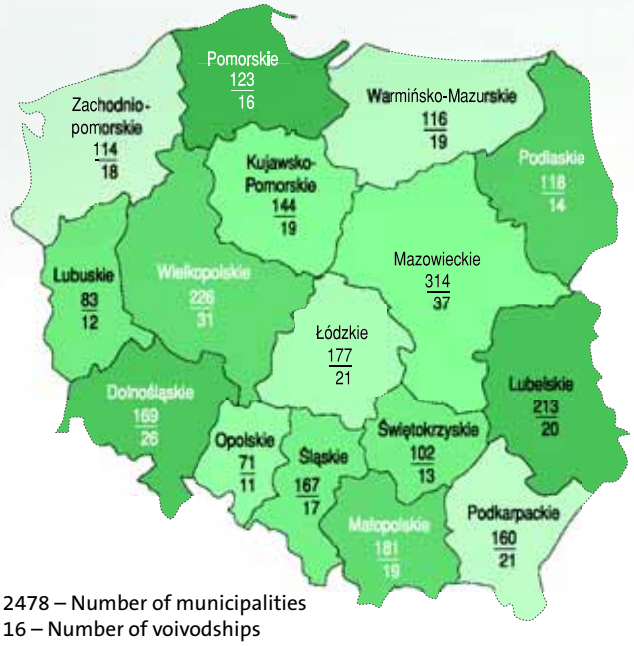


Fig. 2. Average monthly total precipitation in the years 2005-2009 (in millimetres). *Source: Central Statistical Office (CSO) – Agriculture, Warsaw 2009*



2478 – Number of municipalities
16 – Number of voivodships

Fig. 3. Territorial division units in Poland.

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

In 2010, as at 31 December, temperature and precipitation measurements were carried out by 268 stations and posts, while precipitation measurements alone were carried out by 990 posts. The absolute maximum temperature in 2010 was noted in July by the climate station in Grabik: it was 38.2°C, and the lowest temperature was recorded by the Białowieża climate station: it was –31.4°C. The highest amplitude of extreme temperatures in Poland in 2010 was 69.6°C.

The maximum daily precipitation in 2010 was noted by the Szczyrk precipitation measurement station: it was 213 mm.

Poland is a country whose water resources are scanty. Between 1980 and 2010, the average annual surface water runoff together with tributaries abroad was 62.3 km^3, and from Poland alone it was 54.4 km^3. Per capita, the annual water resource is ca. 1.6 dam^3, while in other European countries the resources are estimated at 4.6 dam^3.

Poland's water resources have high seasonal volatility; their territorial distribution is not equal. The capacity of impounding reservoirs is low: they can store only 6% of Poland's annual water runoff. It is not sufficient to ensure adequate protection from temporary water excess or deficit.

Poland is divided into 16 voivodeships, 314 poviats, 65 cities with the rights of poviats and 2.479 gminas. Gminas' auxiliary units are, ***inter alia***, villages (***sołectwo***), the number of which exceeds 40,300. The largest voivodeship in terms of its surface area (35,600 km^2) and population (5.2 million) is Mazowieckie Voivodeship. The smallest voivodeship in terms of the surface area is Opolskie Voivodeship (9,400 km^2) and in terms of the population – it is Lubuskie Voivodeship (1.0 million). The largest gmina in terms of its area is Pisz (634 km^2), and the smallest one is Górowo Iłowieckie (3 km^2). In terms of the population, the largest gmina is the capital city of Warsaw (1.7 million), which is also a city with the rights of a poviat in Mazowieckie Voivodeship, and the smallest gmina is Krynica Morska (1,400) in Pomorskie Voivodeship. *Fig. 3.*

In 2010, Poland's population was 38.2 million – out of which 23.3 million lived in cities and 14.9 million in rural areas. In comparison to 2000, population decreased by 54,000. However, the decrease was noted only in cities (by 407,000). In the period, the increase in the rural population was 354,000. As compared to 2009, there was an increase in the number of live births (from 417,000 to 413,000) and a decrease in the fertility rate (from 1.398 to 1.382). As compared with the previous year, the rate of live births increased by 0.2 per 1,000 population and was 10.8 against 11.0 in 2009 and 9.9 in 2000. As compared to 2009, the number of deaths decreased (by 17,000) as well as their percentage per 1,000 population (from 10.1 to 9.9).

The population projection prepared by the Central Statistical Office (GUS) assumes a systematic decrease in Poland's population until 2035 (by 2.3 million). It is projected that in rural areas, the internal migration balance would be positive, yet it would not compensate for the decline in the rural population estimated at 0.5%. The decrease is the result of a lower number of births. Outflow of the urban population will be stopped mainly by creating new jobs in urbanised areas and by the fact that people living in cities temporarily will be settling there for good.

Selected information on Poland's economic situation in 2010

In 2010, the Polish economy developed at a much faster pace that in 2009, and much faster than projected. For fear of the long-term effects of the global crisis, the 2010 Budget Act assumed Poland's GDP increase of 1.2%, while in reality it was 3.8% (in 2009: 1.7%). The main factors making the economy's growth more dynamic were: internal demand and favourable results of trade with foreign countries. Economic growth was also fuelled by controlled inflation, improved economic situation of enterprises and revival of the labour market that resulted in higher employment. Growth was also stimulated by lenient monetary policy of the National Bank of Poland that, nonetheless, did not result in sufficient intensification of investment processes. In 2010, for the second time, the situation on the Warsaw Stock Exchange improved and the value of participation units in investment funds increased. The imbalance of public finance that has been increasing at a fast pace and the increase in public debt threaten the further acceleration of Poland's economic growth and its economic stability. In terms of the growth rate, Poland ranked third among EU Member States in 2010, following Sweden and Slovakia that started to recover quickly after a considerable collapse in 2009. In the years 2009 and 2010, only Poland managed to exceed the 2008 level (by over 5%). Recovery of Poland's major trade partners was conducive to the development of its economy. Data of the European Commission show that after a decrease in Member States' GDP in 2009 by 4.2%, 2010 saw an increase of about 2%, including in Germany by 3.6%.

The weakening of investment processes that has been observed for the past two years is a factor that weakens the possibilities of making Po-

land's economic growth more dynamic and may result in reducing growth processes in the future. Many companies adjusted their development programs or decided to delay commencement of investment projects. The situation is due to companies' concerns about the development perspectives of the global economy and about the stability of consumer and investment demand revival prospects. Despite a high growth rate of public investments, the majority of which were co-financed by the EU, in 2010 gross fixed capital formation was 2% lower than in 2009, when GFCF also decreased – by 1.1%.

Average employment in the sector of enterprises increased by 0.8% in 2010. Nonetheless, the unemployment rate increased from 12.1% in December 2009 to 12.3% at the end of 2010.

High pace of trade with foreign countries maintained within the entire 2010. Exports in euros increased by 19.5%, and imports increased by 21.7% as compared to 2009. The trade balance was negative – it amounted to EUR 13.5 billion, with excess in trade in agri-food products of EUR 2.6 billion.

Global agricultural production in fixed prices decreased by 2.1% in 2010 (after increasing throughout three previous years), and commodity production decreased by 0.5%. Unfavourable weather conditions during the vegetation period resulted in a decrease in crops and yield of major crops. As a consequence, the global plant production decreased by 7.5%. Animal production increased by 4.8% as compared to 2009.

In 2010, foreign trade in agri-food products once again had a positive trade balance: EUR 2.6 billion. It should be noted that since the accession to the EU, foreign trade in agri-food products has been gaining importance in Poland's balance of trade and payments. The surplus in foreign trade in food reduces Poland's negative balance in Poland's entire foreign trade. The share of exports of agri-food products in total exports was 11.2% in 2010 against 11.7% in the previous year, and the share of imports was 8.1% against 8.6% in 2009.

After two years when the prices were unfavourable for farmers, 2010 saw a higher growth rate of the prices of agricultural products sold by farmers (108.6%) than of goods and services purchased by farmers (101.3%). The price scissors indicator was 107.2 against 96.1% in 2009 and 90.1 in 2008. 2010 was a good year for Polish agriculture from the point of view of agricultural income development.

In 2011, the Polish economy remains at the stage of a visible revival, in spite of negative global conditions. In the first half of 2011, economic growth was 4.3% and the Polish economy ranked high: it was fifth among EU Member States. After a two-year slowdown, investment activity of economic operators recovers. In the group of large enterprises, investment outlays increased in the first half of 2011 by 7.1%, against a decrease of 3.2% in 2010. The pace of trade with foreign countries remains high (double-digit), in spite of a weakening import demand of Poland's major trade partners. Exports in EUR were 13.0% higher in the period January – July 2011 than in the analogous period of the previous year. The negative balance of com-

modity trade with foreign countries was EUR 8.2 billion, but the balance of trade in agri-food products was traditionally positive (EUR 1.3 billion). The prices of certain plant products are still high. In August 2011, the purchasing price of wheat was 17% higher and of rye was 50% higher than in 2010. Animal products were also more expensive than in the previous year: cattle by 34%, poultry and milk by 16% and pigs by 6%.

Agriculture

Considerable fragmentation is the characteristic feature of Polish agriculture – the average surface area of agricultural land per one holding is gradually increasing and in 2010 it amounted to 8.6 ha of agricultural land (in 2009 it was 8.0 ha). Over a half of holdings produce solely or mainly for their own use, thus reducing their spending on food and the living costs of the family. Such holdings with a relatively small acreage employ traditional production methods, consisting in limited use of mineral fertilisers, chemical plant protection products and industrial feed for farm animals, especially cattle. Despite the above and the prevalence of soils with low usefulness for agriculture, Poland is an important European and global 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 berry fruits (strawberries, raspberries and currants) and field vegetables such as onion, cabbage and cauliflower. Soil, climate, and traditional regional conditions determine the specialisation of production.

Cultivation of potatoes and rye, in addition to green areas, dominate in central, eastern and northern areas of Poland. Orchards and berry plantations are located in Mazovia (the Grójec area), Lubelskie Voivodeship, the Sandomierz area, Greater Poland and łódzkie Voivodeship. Cultivation of plants with extensive soil and climate requirements is concentrated in south-eastern and western parts of the country, as well as in Żuławy and Warmia regions. 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. Sheep farming dominates in mountain regions (Małopolskie Voivodeship).

Production of selected agricultural products	Share		Rank	
	in the world	in the EU	in the world	in the EU
wheat	1.4	6.9	15	4
rye	20.8	41.0	3	1
potatoes	2.9	18.4	7	1
sugar beets	4.7	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's milk	2.1	8.2	10	4
Stock:				
cattle	0.4	6.3	46	7
pigs	1.5	11.2	10	3

Table 1. Share and rank of Polish agriculture in the world and in the EU (27 states); *Source: International Review, Central Statistical Office 2010. Data for 2009.*

Land resources and its use structure

Agricultural land, which amounts to 15.5 million ha, constitutes 49.7% of the total area of Poland that is 31.3 million ha. The year 2010 did not bring about any significant changes in the total area or use structure of agricultural land in holdings. In 2010, the private sector held 13.7 million ha or 88.1% of agricultural

land, out of which 13.5 million ha, that is approximately 80% of agricultural land, was utilised by individual agricultural holdings of more than 1 ha in area. The public sector held the remaining agricultural land.

The area of arable land in good agricultural condition amounted to 12.1 million ha in 2010, constituting 75.1% of the total area of agricultural land. In comparison to 2009, the area of land in good agricultural and environmental condition remained unchanged.

In the structure of agricultural land in good agricultural condition (15.5 million ha – 100%), arable land accounted for 74.6% of total agricultural area, orchards of the total area of 336,000 ha – for 2.0%, and permanent pastures with the total area of 3.2 million ha – for 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 share of light soils with 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 evaluation indicator, which is a quotient of conversion hectares to physical agricultural land, is 0.82 in Poland. 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 approximately 498,000 ha and was three times lower than in 2004. In individual agricultural holdings, fallowed land was reduced by more than 2.5 times in the period. In 2010, the area of fallow land in the private sector was 433,000 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.

The General Agricultural Census carried out in 2010 confirmed the existence of change trends in Polish agriculture in the recent years that accelerated from the time of accession. As compared to the results of the General Agricultural Census carried out in 2002, the major changes concerned the following:

- A decrease in the number of agricultural holdings (by a total of 656,000 or 22.4%, of which the number of holdings whose area exceeds 1 ha: by 393,000 or 20.1%), with a simultaneous increase in their surface area;
- Considerable changes in the structure of agricultural holdings, such as a 25% decrease in the number of the smallest

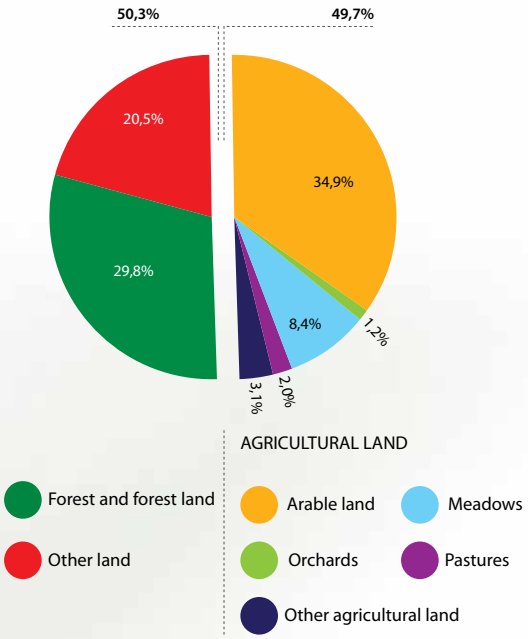


Fig. 4. Structure of land utilisation in 2010. (% of total surface area); *Source: CSO. Agriculture in 2010, Warsaw 2011.*

holdings (whose surface area is 0-5 ha of arable land), a 17% decrease in the number of holdings whose area is 5-20 ha and a stable number of holdings whose area is 20-50 ha. The changes were accompanied by a considerable increase in the number of the largest holdings (50 ha and more): by 34%. As the changes take place slowly, the percentage of holdings whose area is 15 ha or more is only 9%, while the percentage of holdings whose area is 0-5 ha remains high and is close to 70% ;

- Slow but visible popularisation of a multifunctional holding model among small holdings that take up non-farming activities and give up farming partially or altogether;
- Decrease in the total area of land in agricultural use (by 1.1 million ha, i.e. by 5.5%) as compared to 2002 due to using agricultural land for non-agricultural purposes, e.g. infrastructural purposes;
- Slight decrease in the area of sown land (by 0.2 million ha as compared to 2002) with simultaneous changes in the structure of crops: decrease in the area of cereals (by 12%), potatoes (by 51.8%) and sugar beets (by close to 32%) with a simultaneous increase in areas sown with rape (by 115%) and fodder plants (by 60%);
- Increase in total cattle stock with a decrease in cow herds. The trend is connected with higher interest in slaughter cattle production after Poland's EU accession and improvement in the production's profitability. The reduction in the number of cows is due to milk production quotas after the accession and high quality-related requirements for cow's milk purchase;
- Improvement in agricultural holdings' equipment in means of production. It is confirmed by the acceleration of the modernisation of agriculture after Poland's EU accession and the undeniable influence of common agricultural policy instruments, particularly those focused on holding modernisation and setting up of young farmers.

The evolutionary nature of the processes taking place in Polish agriculture is confirmed by data for 2010 as compared to 2009: they do not reveal any significant changes in the structure of agricultural holdings as divided into area groups and the area they occupy. The changes were slight: not greater than 0.5%. Individual holdings whose area is over 1 ha of arable land covered in total 15.3 million ha. As compared to 2002, the total area of holdings decreased by 1.4 million ha or 8.1%. The decrease in the number of holdings in relation to 2002 was the highest in the area groups of 0-1 ha and 1-5 ha of arable land, which recorded a decrease in the number of holdings by 26.8% and 24.8%, respectively. The share of the smallest holdings in the total area of farms decreased: in the area group of 0-1 ha from 33.3% in 2002 to 31.4% in 2010, and in area group 1-5 ha, the figures were from 39.1% to 37.9%, respectively. In 2010 as compared to 2009, there was a decline in the number of agricultural holdings comprised of 1–10 ha (by 43,700) 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 increased in 2009 by 0.2 ha as a result of an increase in the

area of agricultural holdings of over 15 ha (by 0.8 ha). The greatest share in the overall structure of individual agricultural holdings whose area exceeds 1 ha belongs to agricultural holdings comprising of more than 15 ha of arable land: 48.4% (an increase by 4.4% as compared to 2002 and by 1.4% as compared to 2008). *Fig. 5 and 6.*

Since Poland's EU accession, the demand for agricultural land has been on the upside, which resulted in an increase in land prices. The upward trend in the number of transactions in trade in land 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 relatively lowest trade is recorded in southern and central regions of Poland where holding structure is fragmented to the greatest extent and where the practice of passing land to adult children predominates. *Table 2 and 3.*

The average price of arable land in 2010 was PLN 15,125 per ha. As compared to 2010 when the average transaction price was PLN 14,932 per ha, the increase in land prices was only slight (by 1.3%). The stabilisation of land prices in 2010 confirms that the growth rate of arable land prices had been decelerating for three years. The highest percentage increase in prices took place in 2007 (by 33%), while in 2008 and 2009 it was 28% and 19%, respectively. In 2010, the highest prices were paid in the area group 0-1 ha: PLN 18,500 per ha, and in the area group 10-100 ha: PLN 15,600 per ha. Comparing particular quarters of 2010, the prices increased slightly and the highest price was paid in Q4 (PLN 15,875 per ha), with the highest area of land sold.

In 2010, the Agricultural Property Agency (APA) sold 97,000 ha of land, i.e. 7% more than initially planned. The dynamic operation of the Agency in the area of property sale is confirmed by the number of tenders it organised (52,000 in 2008, 73 in 2009 and 88,000 in 2010). The sale of non-agricultural land by the Agency increased considerably (by 23%). The average price of 1 ha of non-agricultural land increased by 23.4% as compared to 2009. Therefore, the Agency's revenues were much higher: a record-breaking surplus was worked out that contributed to the State budget. *Fig. 7.*

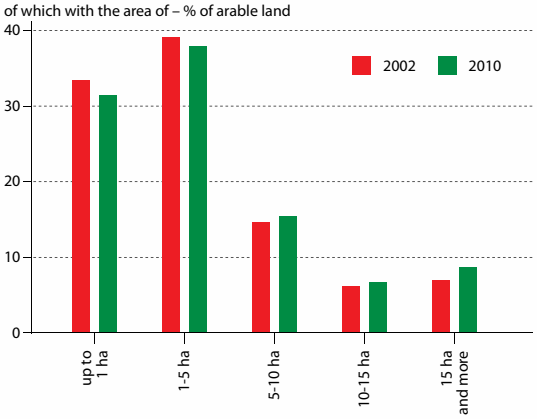


Fig. 5. Structure of individual agricultural holdings by arable land area groups in 2002 and 2010 (%); *Source: CSO. Agriculture in 2009 and 2010, Warsaw.*

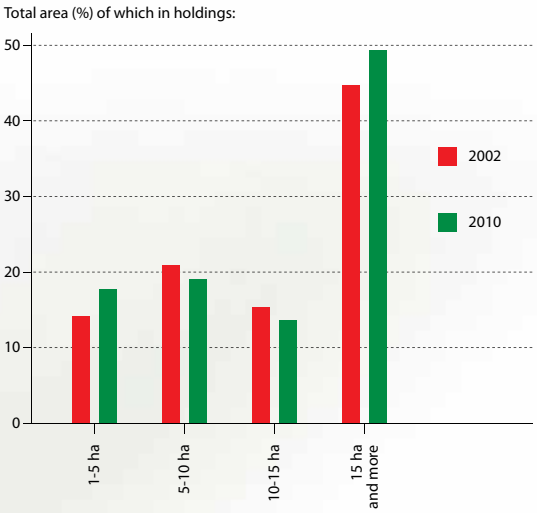


Fig. 6. Structure of individual holdings with over 1 ha of arable land in 2002 and 2010; *Source: CSO. Agriculture in 2009 and 2010, Warsaw.*

	Price per 1 ha in dt			
	Year	in PLN	rye	pigs for slaughter
Arable land	2000	4 786	115.3	13.3
	2005	8 244	237.8	21.1
	2009	17 042	374.3	37.9
Fertile (wheat and beet)	2000	6 712	161.7	18.6
	2005	11 001	317.3	28.1
	2009	20 809	457.0	46.1
Medium fertile (rye and potato)	2000	4 920	118.5	13.7
	2005	8 603	248.1	22.0
	2009	17 725	389.3	39.3
Poor (sandy)	2000	2 725	65.6	7.6
	2005	5 843	168.5	14.9
	2009	13 561	297.9	30.1
Meadows – good	2000	4 883	117.6	13.6
	2005	6 144	177.2	15.7
	2009	13 724	301.4	30.4
Meadows – poor	2000	2 753	66.3	7.6
	2005	4 003	115.5	10.2
	2009	10 319	226.6	22.9

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

Voivodeship	Total	Fertile (classes: I, II, IIIa)	Medium fertile (classes: IIIb, IV)	Poor (classes: V, VI)
Polska	18 213.0	21 831.5	18 971.0	15 005.0
Dolnośląskie	26 298.5	22 816.5	18 665.2	12 862.3
Kujawsko-pomorskie	26 298.6	30 066.4	27 696.7	21 941.9
Lubelskie	13 046.8	17 362.1	12 790.4	9 558.0
mazowiecki	19 220.2	26 579.4	19 249.2	15 753.7
Opolskie	18 952.6	26 362.3	18 982.4	12 649.1
Podkarpackie	13 116.9	15 967.3	12 281.3	10 987.9
Podlaskie	20 968.0	24 677.1	22 650.8	18 368.1
Śląskie	20 905.1	28 879.1	21 582.8	15 004.3
Świętokrzyskie	8 864.0	11 615.2	9 071.0	6 326.8
Wielkopolskie	26 915.6	36 352.6	31 936.6	21 788.3
Zachodniopomorskie	13 023.2	14 577.0	13 886.1	10 8906.4

Table 3. Sale prices of arable land in Q4 of 2010 in selected voivodeships (PLN/ha); *Source: ARMA.*

Situation of agriculture in terms of production and economy in 2010

In comparison with 2009, 2010 was favourable for Polish agriculture in economic terms. After two years of unfavourable prices, the 'price scissors' indicator increased significantly and amounted to 107.2 against 96.1 in 2009. The market conditions of agricultural production improved, although agricultural production declined by 1.8% as compared to 2009. Due to unfavourable agrometeorological conditions during the vegetation period, the yield of the major crops decreased and resulted in a decrease in global plant production by 7.5% as compared to 2009. Animal production increased by 4.8%. The increase in the aggregate animal production value indicator was generally due to an increase in poultry production and the stabilisation of pig production at the average price increase of 2%. The decrease in the value of plant production in 2010 was the result of its lower volume at the price increase of 4%. The increase in agricultural income in 2010 was mainly related to the increase in direct payments whose share in the income of agricultural entrepreneurs increased to over 60%. The majority of these payments originate from long-term EU agriculture support programmes. In the case of Polish farming, the increase in payments is compensated by the increase in production costs connected with intensification and mechanisation of agricultural production that are of strategic importance to the sector's development. *Table 4.*

The Institute of Agricultural and Food Economics – National Research Institute analyses, ***inter alia***, the income situation of farmers based on the results of agricultural accounting of 12,000 holdings that represent 745,000 holdings whose economic size is over 2 ESU. They constitute 38% of the total area of Polish holdings, about 54% of the total number of people employed in agriculture full-time work there, they occupy ca. 83% of total arable land and keep approx. 92% of animal stock and produce over 90% of Poland's agricul-

Specification	2004–2006	2007–2009	2010	2010 / 2007–2009
1. Agricultural sector production (A+B+C+D)	62 667	75 909	77 646	102.3
A - Plant production	26 696	34 782	34 365	98.8
B - Animal production	29 896	34 506	35 865	103.9
C - Payments to products	3 967	4 363	4 990	114.4
D - Other production and services	2 108	2 259	2 426	107.4
2. Indirect consumption	37 203	46 741	48 146	103.0
3. Gross value added	25 464	29 168	29 499	101.1
4. Net value added	20 045	23 677	23 584	99.6
5. Other taxes	1 352	1 482	1 546	104.4
6. Other subsidies	5 118	9 750	11 866	121.7
7. Income from factors of production	23 811	31 946	33 903	106.1
8. Agricultural entrepreneur's income (7 – costs of hired labour, rents, interest balance)	19 734	26 478	27 886	105.3
9. Share of payments and subsidies in income	46.0	53.3	60.4	113.4

Table 4. Economic results of Polish agriculture in 2010 (current prices, PLN million); *Source: Institute of Agricultural and Food Economics, 2011, Farmers' income in 2010.*

tural production. The initial analysis of the income situation of farmers in 2010 carried out by the Institute of Agricultural and Food Economics for a medium-sized holding that run an FADN confirms that income from a farm increased significantly in 2010 as compared to 2009, as presented in the table below. *Table 5.*

The majority of EU Member States achieved an increase in agricultural income in 2010. In real terms, having eliminated price fluctuations, income from factors of production per one person employed in agriculture full-time was over 45% higher in Poland and 11.1% higher throughout the EU than in 2005. Similar to 2009, also in 2010 Polish (and Bulgarian) agriculture was among that of Member States with agricultural income that increased the most.

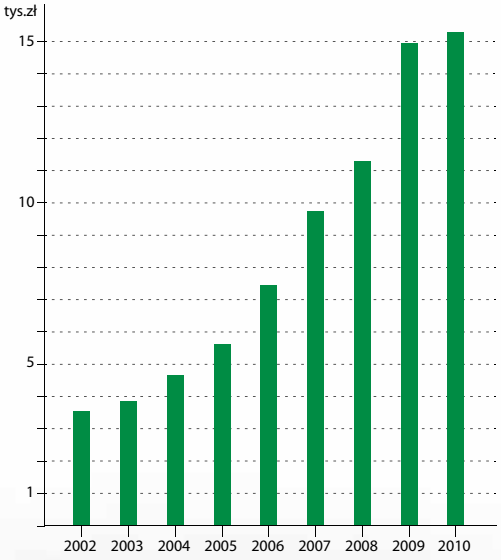


Fig. 7. Sale prices of agricultural property belonging to APA in PLN per ha between 1992 and 2009; Source: APA.

AGRICULTURE IN PARTICULAR REGIONS

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

Specification	2009	2010	2009 = 100%
Number of holdings	7 302	7 302	100.0
Arable land area	32.1	31. 9	99.6
Income from a family run holding	53 698	79 995	149.0

Table 5. Income from a family run holding in 2009 and 2010; *Source: Institute of Agricultural and Food Economics – own calculations based on FADN.*

Specification	Yields of cereals from 1 ha in dt	Yields of potatoes from 1 ha in dt	Consumption of fertilizers expressed in pure component	
			Mineral or chemical fertilizers in thousand tonnes	Calcium fertilizers in thousand tonnes
Poland	34.8	191	1 899.4	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
Zachodniopo-morskie	41.2	227	115.6	59.8

Table 6. Yields of cereals and potatoes compared with the intensity of mineral and organic fertilisation; *Source: Agriculture in 2010, Central Statistical Office.*

Specification	Total	Cereals	Leguminous plants	Potatoes	Fodder crops
Poland	100.0	100.0	100.0	100.0	100.0
Dolnośląskie	6.9	6.7	12.6	5.9	2.5
Kujawsko-Pomorskie	8.6	7.8	14.2	4.9	0.7
Lubelskie	9.8	10.5	7.4	7.2	6.4
Lubuskie	2.7	2.7	3.5	1.4	2.4
Łódzkie	7.0	7.6	2.4	11.1	6.6
Małopolskie	2.9	2.6	0.7	9.3	2.9
Mazowieckie	11.5	12.1	5.1	14.0	13.6
Opolskie	4.3	4.2	8.7	2.3	1.8
Podkarpackie	3.1	3.0	1.9	8.9	2.0
Podlaskie	5.8	6.1	0.8	4.5	12.0
Pomorskie	5.4	5.3	7.1	5.4	5.0
Śląskie	2.9	2.9	1.9	3.1	1.8
Świętokrzyskie	3.1	3.2	1.1	5.2	2.9
Warmińsko-mazurskie	5.8	5.6	6.2	2.7	98.0
Wielkopolskie	14.0	14.2	15.5	10.3	14.9
Zachodniopomorskie	6.3	5.6	11.0	3.9	6.4

Table 7. Area of sown crops in 2010 divided into voivodeships – percentages

The wear and tear of 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. *Table 6.*

The results of the 2010 Agricultural Census revealed considerable territorial differences in crop structure. When territorial cross section is concerned, the following voivodeships had the highest share of sown crops: Wielkopolskie – 14.2%, Mazowieckie – 12.1% and Lubelskie – 10.5%. The voivodeships have had the largest share in Poland's total area of cereals sown for years. The smallest percentage of the area of cereals sown was in the following voivodeships: Lubuskie and Małopolskie (2.7% and 2.6%, respectively) and in Podkarpackie (3.0%). *Table 7.*

The concentration of farm animals is also subject to regional differences. Traditionally, the largest bovine population is in Mazowieckie (18.4%), Podlaskie (15.3%) and Wielkopolskie (14.7%) Voivodeships. The highest number of cows was also recorded in the above mentioned voivodeships and their share in the total population of cows in Poland was 21.0%, 16.1% and 10.8%, respectively.

As concerns the general structure of the bovine population, the results of the 2010 General Agricultural Census, as compared to the 2002 General Agricultural Census, show that the share of the cow foundation stock declined (by 5.9 percentage points), of which the share of milk cows by 7.9 percentage points.

At the same time, the structure shows an increase in other cattle groups, particularly young cattle aged up to 2. The structure of the cattle herd in 2010 reveals a reduction in the population of milk cows that was mainly due to milk production quotas and stringent quality requirements. The number of holdings keeping milk cows decreased almost by half as compared to 2002 (from 874,000 to 424,000). At the same time, from 2004 onwards milk yield of milk cows has been increasing (from 4,100 litres in 2004 to 4,700 litres in 2010). In barns under performance supervision milk yield is almost 60% higher.

The largest stocks of pigs are in Wielkopolskie, Kujawsko-Pomorskie and Mazowieckie Voivodeships. The decline in the number of pigs in 2010 shows that the stock decreased considerably from 2002 (by ca. 3 million). Within the last eight years, many farmers ceased to produce live pigs due to considerable profitability fluctuations. In 2010, pigs were kept by 301,000 entities against 761,000 in 2002. *Fig. 8 and 9.*

The criterion used to measure cattle and pig breeding intensity is the stocking density per 100 ha of arable land.

Supplying the agricultural sector with means of production

Significant decreases in mineral fertilizer prices in 2010 in Poland with a considerable improvement in the profitability of their use resulted in much higher sale of mineral fertilizers. In 2009, to purchase 1 kg of NPK one had to sell 8.5 kg of wheat, 12.4 of rye and 12.5 kg of potatoes. In 2010, the purchase 1 kg of NPK required selling 5.7 kg of wheat, 8.3 of rye and 9.4 kg of potatoes. The price relations of calcium fertilizers also improved as compared to 2009; they were: 2.2 kg of wheat, 3.2 of rye and 3.7 kg of potatoes, whereas in 2009 they were: 2.6 kg of wheat, 3.8 kg of rye and 3.9 kg of potatoes.

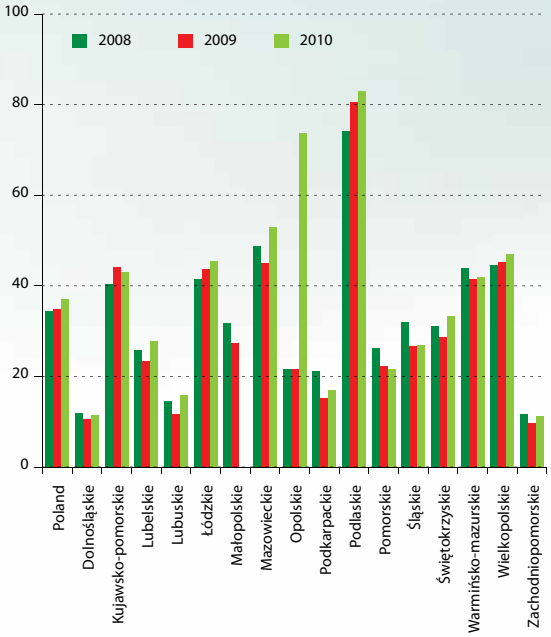


Fig. 8. – Cattle

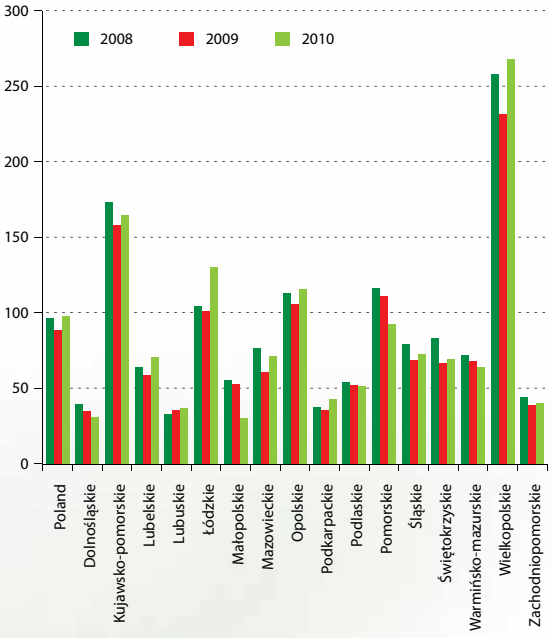


Fig. 9. – Pigs

Stock of cattle, cows and pigs per 100 ha of arable land in particular voivodeships in 2009 [1] (number of animals); *Source: Agriculture in 2009, Central Statistical Office; and Results of the 2010 General Agricultural Census.*

[1] Stock of cattle and cows based on data from June; stock of pigs based on data from March.

Consumption of mineral fertilizers (NPK) for crops in 2010 amounted to slightly more than 1.9 million tonnes and was 0.3% higher than in the preceding year. The relatively low fertilization level in 2010 was due to unfavourable agrometeorological conditions during the vegetation period, damages caused by flood and water permeating fields. The growth rates of particular fertilizers' use varied. The use of nitrogen fertilizers decreased by 6.5%, while the use of potassium fertilizers by 12.4% and of phosphorus fertilizers by 6.0%.

As per 1 ha of arable land, the use of fertilizers in Polish agriculture as a whole was 118.2 kg of NPK and was 0.3% higher than in the previous year. In individual holdings, it decreased by 1.9%, i.e. to 111.8 kg of NPK per 1 ha of arable land. The N:P:K ratio in a fertilizer dose did not change much as compared to the previous year and was 54:21:25. The high differences in fertilization levels between voivodeships persist: from 171 kg of NPK per ha in Opolskie Voivodeship to 55 kg of NPK per ha in Podkarpackie Voivodeship.

After five years of declining, 2010 saw an increase in the use of calcium fertilizers by 56% to 51.4 kg of CaO per 1 ha. In individual holdings, the use of calcium fertilizers was 42.5 kg/ha and increased by 32% as compared to 2009. There were still considerable differences between particular voivodeships: from 99.0 kg per ha in Opolskie Voivodeship to 2.1 kg per ha in Świętokrzyskie Voivodeship. *Table 8.*

In the EU in 2009, there was a significant reduction in the fertilization level due to high fertilizer prices in 2008 and a decrease in agricultural production profitability. The rate of reduction in the fertilization level in 2008/2009 was 22%. The highest decrease concerned nitrogen fertilizers (by 40.7%) and phosphorus fertilizers (by an average of 37%), while the decrease in the use of nitrogen fertilizers was lower: by 13%. *Table 9.*

	2000/01	2005/06	2007/08	2008/09	2009/10
Mineral fertilizers NPK	90.8	123.3	132.6	117.9	118.2
of which: nitrogen (N)	50.3	62.5	70.7	68.0	63.6
phosphorus (P_2O_5)	17.9	27.7	28.8	23.3	24.7
potassium (K_2O)	22.6	33.1	33.3	26.6	29.9
calcium fertilizers (CaO)	94.2	54.8	38.5	32.9	51.4

Table 8. Use of mineral and calcium fertilisers (in pure NPK per 1 ha of agricultural land); *Source: Market of Means of Production, Institute of Agricultural and Food Economics, 2011.*

	2005/06	2006/07	2007/08	2008/09
UE -27	17.3	17.0	18.3	14.2
UE-15	13.3	13.0	14.0	10.4
UE-12	3.9	4.0	4.4	3.8
POLAND	1.9	2.0	2.1	1.9

Table 9. Use of mineral fertilizers in the EU (million tonnes of NPK); *Source: Market of Means of Production, Institute of Agricultural and Food Economics, 2011.*

The sale of **plant protection products** in 2010 was at a level similar to the previous year and was 19,449,000 tonnes of active substance. Herbicides (53.9%) had the largest share in the structure of sales, followed by fungicides and seed dressing agents (29.5%).

In January 2010, prices increased by 0.5% as compared to the analogous month of 2009. Within 12 months, the products went up in price by 3.8%, of which insecticides by 8.5% and fungicides by 4.4%, while herbicides were cheaper by 0.3%.

In 2010, plant protection products were sold in Poland in 6,489 retail outlets. In comparison with 2009, there was an increase in the number of retail outlets selling plant protection products by 99.

Out of the total number of outlets selling plant protection products, 5% (324) are wholesale outlets. The highest number of wholesale outlets are located in Mazowieckie Voivodeship (43), while the smallest number in Świętokrzyskie (6) and Warmińsko-Mazurskie Voivodeships (8). In Poland, there are 6,165 shops where retail sale is carried out, of which 132 are seasonal. The smallest number of retail outlets selling plant protection products is located in Lubuskie Voivodeship (123). The highest number of such outlets is located in Wielkopolskie (770), Mazowieckie (709) and Lubelskie (704) Voivodeships. Of all the registered retail outlets, 2,535 (i.e. 41%) sell the entire range of plant protection products, also those considered toxic and highly toxic to humans. At the end of 2010, the number of plant protection products admitted to trade was 883, of which 189 products whose permit expired.

In 2010, average annual prices of 28 agricultural engineering means (out of the 33 analysed by the Institute of Agricultural and Food Economics) increased by between 0.2% and 19.8% as compared to 2009. As compared to December 2009, in December 2010 the prices of agricultural engineering means increased by an average of 4.5%. The increase was 2.1 percentage points higher than in the previous year. Production of **farming machinery** in Poland in 2010 decreased. Production of tractors declined by ca. 43% along with the production of the majority of other farming machinery: of combines for potato harvesting by 56.9%, cereals combines by 47.6% and of mineral fertilizer spreaders 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 kW 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.

As projected by the Institute of Agricultural and Food Economics, in 2011 the sale volume of the majority of farming machinery will remain at the 2009 level. The factors stimulating demand will include the need to replace amortised agricultural engineering means, gradual increase in opportunities of financing from EU funds and improvement in agricultural income. The factors decelerating demand will cover an increase in machinery prices due to higher VAT rate (23%). The increase in demand for machinery will be lower than the increase in demand for agricultural production working means. The lower differences between the prices of Polish and imported machines will result in a change in the structure of purchases in favour of imports. *Table 10.*

Specification	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 10. Changes in retail prices of means of agricultural production (previous year = 100)

Value of agricultural production and price relations

In 2010, the value of global agricultural production as per current prices reached the level of PLN 85.3 billion and was 6.7% higher than in 2009. Global production dynamics as per current prices decreased as compared to 2009 by 2.1%, of which in individual holdings by 1.4%. Commodity agricultural production as per current prices increased by almost 7%. As per fixed prices, it decreased as compared to the previous year by 0.5%, but increased in individual holdings (by 0.2%). *Table 11.*

The value of plant production in current prices amounted to PLN 45.7 billion and was 9.6% higher than in the preceding year, and animal production reached the value of PLN 39.6 billion, which was an increase by 4.0%. Commercial production accounted for 70.7% of the global production value and its share in the global production increased by 0.2 percentage points in comparison with the preceding year. The share of plant production in the structure of agricultural production increased by 1.2 points, while the share of animal production decreased by 1.4 points. *Table 12.*

Significant fluctuations in the dynamics of plant and animal production over the years result, above all, from the variability of weather conditions that influence the volume of yields and crops and, in consequence, result in reduced feed reserves and increase in their prices. This, in turn, affects the volume of animal production. *Fig. 10 and 11.*

Specification	2009	2010
Global production	102.4	97.9
- of which individual holdings	102.3	98.6
Commodity production	103.1	99.5
- of which individual holdings	109.0	100.2

Table 11. Comparison of agricultural production dynamics in 2009 and 2010 (fixed prices); *Source: Statistical Yearbook, Central Statistical Office 2009, 2010.*

Specification	2004	2005	2006	2007	2008	2009	2010
Total global production	**107.5**	**95.7**	**98.8**	**105.9**	**103.2**	**102.4**	**106.9**
- plant production	116.7	88.1	94.8	108.9	108.3	103.0	109.6
- animal production	97.3	105.2	102.6	102.9	97.1	101.6	104.0
Total commercial production	**103.3**	**95.4**	**104.2**	**101.5**	**106.2**	**103.9**	**107.3**
- plant production	112.2	87.0	103.7	99.3	111.3	107.9	110.8
- animal production	97.5	102.1	104.6	103.1	102.4	100.6	104.6
Share of commercial production in global production	**66.3**	**67.7**	**70.5**	**64.4**	**67.7**	**71.2**	**70.7**

Table 12. Dynamics of global and commodity agricultural production as per current prices (previous year = 100); *Source: Central Statistical Office, Agriculture in 2010.*

After a very good harvest in 2009, cereal crops in 2010 were 8.4% lower than in 2009, but 2.4% higher than the 2005-2009 average. The decline in harvest volume was primarily due to lower crops and a slight reduction in crop acreage. Due to unfavourable weather, the quality of grain was much lower than in the previous year. Similar to the global and the European market, the Polish market of cereals was under pressure of demand. Due to a combination of many factors, mainly external ones (speculations, low crops, limitations of export to Russia), the prices of many cereals started to increase dynamically. The cereal price increase was less dynamic in the second half of 2010 due to good news about sown crops and harvest in 2011. After the 2011 harvest, the seasonal drop in cereal prices started. It is not, however, as deep as in the previous years and the prices of cereals remain relatively high.

Despite lower economic profitability of production due to higher feed prices, 2010 saw an increase in poultry meat production and a considerable increase in its exports that became the major factor stimulating production. Worse economic conditions of pig production, related primarily to more expensive feed, resulted in a reduction in the number of pigs and lower demand for concentrates in the following period. *Table 13.*

After two years when the prices were unfavourable for farmers, 2010 saw a higher growth rate of the prices of agricultural products sold by farmers (108.6%) than of goods and services purchased by farmers (101.3%). The price scissors indicator was 107.2 against 96.1 in 2009 and 90.1 in 2008. *Table 14.*

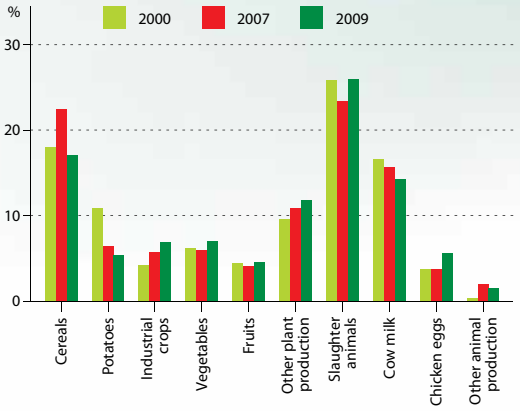


Fig. 10. Structure of global agricultural production in 2000, 2007 and 2009 (percentages); *Source: Agriculture in 2010, Central Statistical Office, Warsaw 2011.*

AGRICULTURAL PRODUCTION AND SELECTED FOODSTUFFS MARKETS

Plant production

The total area of crop sowings in 2010 amounted to 10.6 million ha, which was less than the year before (by close to 10%). As compared to the previous year, the area sown with oat increased by 1%, with leguminous plants by 0,5%, with sugar beet by 0.2% and with oil plants by 1.9%. The total area under cereals (basic cereals and cereal hybrids), maize, buckwheat, millet, other cereal crops and fodder plants shrank by 2.8% and 2.5%. The total area of cereal crops was approximately 8.48 million ha and reflected the price situation on the market. Due to unfavourable price relations cereals, particularly winter wheat, were supplanted by rape. Thus, the area of winter crops decreased considerably (by 5.3%), but the acreage of spring cereals increased (by 4.7%). The highest increase was achieved by crops of maize – by 9.0%, oat and mixes – by 3.6% and wheat – by 2.6%. The highest decrease was posted by crops of triticale – by 14.1%. High prices of cereals from mid-2010 resulted in higher interest in cereals cultivation in 2011.

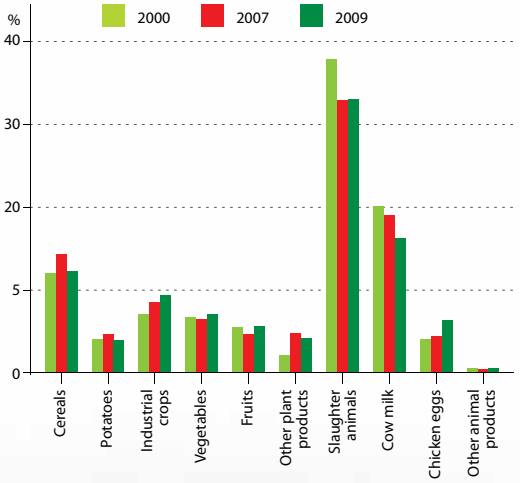


Fig. 11. Structure of commercial agricultural production in 2000, 2007 and 2009 (% – current prices); *Source: Agriculture in 2010, Central Statistical Office.*

Specification	2004	2005	2009	2010	2010/2005
TOTAL	122.5	97.3	97.2	107.5	121.9
of which purchase	114.4	97.1	96.2	105.8	112.6
Plant production	124.0	93.9	90.1	119.1	139.3
Animal production	121.1	99.4	103.4	99.3	111.7

Table 13. Price indicators of commodity agricultural production (previous year = 100); *Source: Agriculture in 2010, Central Statistical Office.*

Specification	2000	2004	2005	2007	2008	2009	2010
Prices of agricultural products sold in total	114.7	111.4	97.9	114.5	101.2	97.9	108.6
- plant products	107.4	93.1	94.8	125.1	94.8	88.7	X
- animal products	118.8	122.3	99.7	106.4	104.9	103.7	X
Prices of goods and services purchased	111.4	108.6	102.0	106.3	111.2	102.0	101.3
Index of price relations ('price scissors') of the products sold to goods and the services purchased	103.0	102.6	96.0	107.7	90.1	96.1	107.2

Table 14. Price relations of agricultural products to the prices of goods and services purchased by agricultural holdings; *Source: Agriculture in 2010, Central Statistical Office.*

Delays in fieldwork in autumn 2010 due to unfavourable agrometeorological conditions resulted in a slightly smaller area of land sown with winter crops, but a considerable increase in the area of land sown with spring crops. *Fig. 12.*

The results of the 2010 General Agricultural Census show that, compared to 2002, the area where the following crops are cultivated declined considerably:

- Cereals (with maize for seeds) by 647,000 ha or by 7.8%, with a simultaneous decrease (by 4.6 percentage points) in their share in the total area of sown land. The area of rye crops decreased in the period by 497,000 ha or by 31.9%,
- Potatoes by 416,000 ha or by 51.8% and the share in the total area of sown land by 3.8 percentage points.

The area of land sown with the following increased:

- Industrial plants: by 41,500 ha (increase in the area of sown land by 4.1 percentage points),
- Fodder plants with maize for green forage: by 338,000 ha or by 60.1% (share increase by 3.3 percentage points),
- Other crops: by 115,000 ha or by 37.9%.

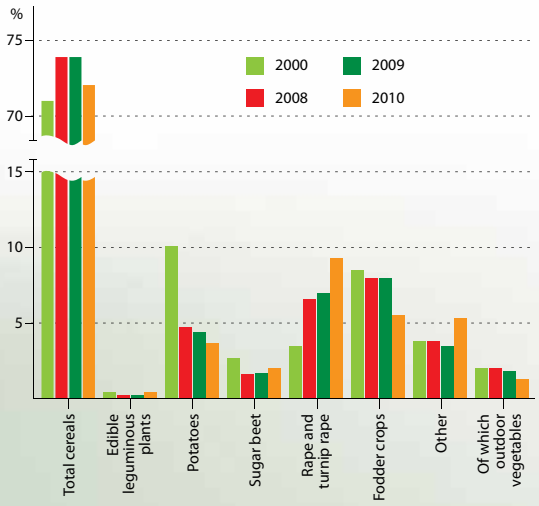


Fig. 12. Crop structure in 2000, 2008, 2009 and 2010 (%); *Source: Agriculture in 2010, Central Statistical Office.*

Compared to the results of the 2002 General Agricultural Census, the 2010 Census revealed a considerable decrease in area sown with spring wheat – by 193,000 ha (or 42.6%), sugar beet – by 97,000 ha or by 31.9% and outdoor vegetables – by 32,000 ha (or by 18.6%). The area of the following crops increased: triticale – by 386,000 ha (or by 40.9%), maize for green forage – by 191,000 ha or by 97.3%, rape and turnip rape – by 507,000 ha (or by 115.5%) and feed crops by 338,000 ha or by 60.1%.

In 2010, the number of holdings over 1 ha large engaged in the cultivation of agricultural and horticultural crops amounted to 1,308,000 or 83.7% of the total number of agricultural holdings (in 2002: 1,546,000 or 79%). *Table 15.*

Cereal market and processing

In 2010, cereals yield was 8.4% smaller than in 2009. Smaller areas of cereal plantations for 2010 crops and agrometeorological conditions that were 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. Although agrometeorological conditions were particularly unfavourable to maize crops, maize production did not decrease. The highest decrease in production was posted by cereals used typically as feed: triticale, barley and rye. Crops of cereals (including maize, buckwheat and millet) were at the level of 27.2 million tonnes: lower than in 2009 but 2.5% higher than the average for 2005-2009.

In 2010, Polish cereals resources were 27.3 million tonnes and were 8.4% lower than in 2009, but 2.4% higher than the 2005-2009 average. The decrease was due to lower crops and lower crop area in the previous year. Production of all cereals declined, with the exception of maize. The highest decrease was posted by cereals used typically as feed (triticale, barley and rye). Unfavourable agrometeorological conditions resulted in lower quality parameters of grain. The decrease in yield was partly compensated for by vast stocks. National resources of the majority of cereals, mainly rye and triticale, decreased (by 8-9%). The Polish and global cereals market is under pressure of demand that is mitigated by market stabilisation measures by the European Commission.

Domestic demand for cereals has been fluctuating between 26-28 million tonnes (the latter is the 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

CROP TYPE	1996 –2000	2001 –2005	2008	2009	2009		
	Annual average				1996 –2000 = 100	2001 – 2005 = 100	2008 =100
TOTAL CEREALS							
A	8 796.0	8 396.7	8 598.8	8 583.0	97.6	101.9	99.8
B	28.6	31.9	32.2	34.8	121.7	108.5	106.1
C	2 5189.4	2 6758.3	2 7664.3	2 9827.0	118.4	111.5	107.8
TOTAL WHEAT							
A	2 576.8	2 375.6	2 277.9	2 346.0	91.1	98.8	103.0
B	34.0	38.0	40.7	41.7	122.6	109.7	102.5
C	8 772.0	9 022.0	9 274.9	9 790.0	111.6	108.5	105.6
RYE							
A	2 275.4	1 601.0	1 396.5	1 396.5	61.4	87.2	99.9
B	22.7	24.4	24.7	26.6	117.2	109.0	107.7
C	5 160.0	3 910.0	3 448.5	3 713.0	71.9	95.0	107.7
TOTAL BARLEY							
A	1 142.6	1 053.0	1 206.6	1 157.0	101.3	109.9	95.9
B	29.9	31.7	30.0	34.4	115.0	108.5	114.7
C	3 420.0	3 337.0	3 619.4	3 984.0	116.5	119.4	110.1
OATS							
A	590.0	544.4	550.6	525.0	89.0	96.5	95.4
B	24.4	24.7	22.9	26.9	110.2	108.9	117.5
C	1 437.5	1 346.0	1 262.3	1 415.0	98.5	105.1	112.1
TOTAL TRITICALE							
A	663.4	1 004.4	1 333.5	1 465.0	220.8 very high	145.9	109.9
B	30.2	32.2	33.4	35.7	118.2	110.9	106.9
C	2 006.0	3 237.0	4 459.6	5 234.0	260.9	161.7	117.4
POTATOES							
A	1292.0	813.0	548.9	508.0	39.3	62.5	92.5
B	183.0	180.0	191.0	191.0	104.4	106.1	100.0
C	23 620.0	14 600.0	10 462.0	9 703.0	41.0	66.5	92.7
RAPE AND TURNIP RAPE							
A	409.6	479.4	771.1	810.0	198.0	169.1	105.0
B	20.7	24.6	27.3	30.8	148.8	125.2	112.8
C	846.7	1 178.0	2 105.8	2 497.0	294.1	211.9	118.6
SUGAR BEET							
A	395.4	298.0	187.5	200.0	50.6	67.1	106.6
B	377	411	465	543	144.0	132.1	116.8
C	14 920.1	12 236.0	8 715.1	10 849.0	72.7	88.7	124.5

Table 15. Area of crops, harvest and yields of basic agricultural crops
A – Area in thousand ha
B – Yield from 1 ha in dt
C – Yield in thousand tonnes;
Source: Central Statistical Office, Agriculture in 2010, Concise Statistical Yearbook 2009.

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 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 cereals are 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 the 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 biofuels market should also stimulate further increase in cereals consumption and a further increase in its share in domestic consumption. *Table 16.*

Cereals processing

In 2010 compared to 2009, industrial grinding of cereals decreased by approx. 10% and covered ca. 61% of grains used for food purposes. Despite a decrease in comparison with 2009, the level of grinding was similar to 2008. Industrial production of wheat flours in 2010 was 10% lower than in the previous year, while the production of rye flours increased compared to the previous period by 7%. In 2010, there was a 10% increase in pasta production. Production of shelf-stable bread developed well (it posted a 2% increase as compared to the previous year), similar to prepared food (produced by expanding or roasting cereals). In 2010, there was an 18% decrease in groats production, with an increase in the production of flakes.

In 2010 there was an increase in investment activity of primary and secondary cereal processing companies. The smallest increase in investments took place in the feed industry, which had invested actively in the past years. The economic and financial results of the cereals and milling industry improved visibly. For the first time in several years, the net profitability of the cereals and milling industry exceeded the average of the food industry.

Sugar market

Poland is an important sugar producer in the European Union (third largest). Reducing the production of sugar from sugar beet is one of the results of the sugar market reform in the European Union. From economic year 2009/2010 Poland's sugar production quota is 1,405,608.1 tonnes. Prior to the reform, the area of sugar beet plantations decreased from 286 thousands hectares in 2005 to 192 thousands hectares in 2010.

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.

Current EU regulations on the sugar market 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 profitable.

Eighteen sugar plants operated during the 2010/2011 sugar production campaign, with a significant increase in the scale of output per plant and in labour efficiency. The total sugar production was 1,465,700 tonnes. Sugar producers purchased and processed 9.96

	2007/08	2008/09	2009/10	2010/11	2011/12 Projection
Initial stock	0.8	2.1	3.5	5.1	4.3
Cultivation acreage	8.2	8.5	8.5	8.4	7.7
Yield	3.27	3.23	3.50	3.24	3.41
Production	27.0	27.6	29.7	27.2	26.2
Imports	2.1	2.4	2.0	2.2	1.7
Total resources	30.0	32.1	35.3	34.6	32.2
Domestic consumption of which:	**5.3**	**5.2**	**5.2**	**5.2**	**5.1**
- Consumption	5.3	5.2	5.2	5.1	5.1
- Industrial use	2.0	2.1	2.9	2.9	3.0
- Fattening	16.7	16.0	16.3	17.2	16.4
Exports	1.0	2.4	2.7	2.0	1.9
Final stock	2.2	3.5	5.1	4.3	2.9

Table 16. Total cereals balance in the years 2004/2005 – 2010/2011 (in thousand tonnes); *Source: Institute of Agricultural and Food Economics, Cereals Market 2011.*

million tonnes of beet, i.e. 8% less than in the previous season, from planters (38,200). 1,433,000 tonnes of sugar were manufactured from the raw material. Sugar beets were harvested from 192,000 hectares, with the average yield of 509 dt/ha and with average sugar output of 14.29%. The average duration of the campaign was 102 days. In 2010, the area of an average plantation was 5.1 ha.

In recent years, sugar consumption in Poland was ca. 1,600,000 tonnes, but its structure has been changing significantly. The consumption of sugar in households has been decreasing systematically (ca. 15.6 kg per person), with an increase in exports of foodstuffs that contain sugar.

From economic year 2010/2011 Poland's sugar production market is divided between four producers: Krajowa Spółka Cukrowa S.A. – 39.1% of the market, Pfeifer & Langen Polska S.A. and Pfeifer & Langen Glinojeck S.A. – 26.5%, Südzucker Polska Sp. z o.o. – 25.0% and Nordzucker Polska S.A. – 9.4%.

A positive effect of the sugar industry's restructuring is the improvement in the efficiency of labour and capital use. In 2010, the number of people employed by the sugar industry decreased by approx. 13%, while the technical labour efficiency increased to the level of 350 tonnes of sugar per employee.

Fruit and vegetable market

In 2010, fruit crops in Poland amounted to 2.7 million tonnes and were 25% lower than in the previous year and 12% lower than the multi-annual average (see: Table). Apple crops were 1.86 million tonnes, against over 2.6 million in the previous year (a decrease of close to 30%). The crops of fruits from berry shrubs were also lower, while the highest decrease in production – by 11% – was posted by strawberries. Purchasing prices of the majority of fruit varieties were higher than in 2009. The average price of dessert apples in the 2010/2011 season was twice as high as in the previous season. It is estimated that in 2011 fruit crops in Poland would be higher than in 2010 and would amount to ca. 3 million tonnes, even in spite of varied vegetation conditions in the winter and spring in different regions of Poland (e.g. in Wielkopolskie and Kujawsko-Pomorskie Voivodeships there were spells of ground frost and drought). Crops of apples and pears will be higher, crops of sour cherries will be slightly higher, while crops of plums, strawberries, raspberries, gooseberries and currants, particularly black currants, will be lower. Damages due to frost and ground frost affected some strawberry plantations. The harvesting period was much shorter due to insufficient soil humidity. Due to heavy rainfall in summer 2011, sour cherry and cherry fruits cracked and were of poorer quality in many regions. *Table 17.*

Production of field vegetables in 2010 decreased by 12% as compared to 2009 and was 4.25 million tonnes. The largest decrease in production affected onions, cabbages, carrots and cauliflowers. The yield of vegetables grown under glass decreased by ca. 4% to 760,000 tonnes. Mushroom production was slightly high-

Specification	Average for 2001-2008	2009	2010[1]	2011[2] Projection	2010	
					2001 –2008 =100	2009 =100
Total fruit harvest	3 116.2	3 646.2	2 738.0	3 060.0	87.9	75.1
Total harvest from trees, of which:	**2 635.7**	**3 103.0**	**2 212.0**	**2 645.0**	**83.9**	**71.3**
Apples	2 225.2	2 626.3	1859.0	2 300.0	83.5	70.8
Pears	69.5	83.0	58.0	60.0	83.5	70.0
Plums	103.6	120.7	91.0	77.0	87.8	75.4
Sour cherries	173.7	189.2	143.0	150.0	82.3	75.6
Cherries	39.4	50.6	35.0	35.0	88.8	69.2
Harvest of fruit from fruit-bearing trees and plantations of berries, of which:	**480.5**	**543.2**	**526.0**	**415.0**	**109.5**	**96.8**
Strawberries	183.2	198.9	177.0	160.0	96.6	89.0
Raspberries	55.7	81.8	88.0	82.0	158.0	107.6
Currants	154.0	196.5	191.0	110.0	124.0	97.2
Gooseberries	19.3	15.8	15.0	10.0	77.7	94.9
High-bush blueberries	4.6	11.0	14.0	14.0	304.4	127.3

Table 17. Fruit production in Poland (thousand tonnes); *Source: Market analyses by the Institute of Agricultural and Food Economics.*

Specification	Average for 2001-2008	2009	2010[1]	2011[2] Projection	2010	
					2001 –2008 =100	2009 =100
Total vegetable crops	5 306.0	5 600.6	4 952.0	5 515.0	93.3	88.4
Soil vegetable crops, of which:	**4 636.1**	**4 809.7**	**4 250.0**	**4 800.0**	**91.7**	**88.4**
Cabbage	1 317.7	1 275.9	1 090.0	1 250.0	82.7	85.4
Cauliflowers	210.8	225.3	200.0	230.0	94.9	88.8
Onions	679.4	707.8	583.0	755.0	85.8	82.4
Carrots	861.7	913.3	815.0	850.0	94.6	89.2
Beets	357.7	350.7	324.0	365.0	90.6	92.4
Cucumbers	280.0	256.4	247.0	260.0	88.2	96.3
Tomatoes	244.4	265.3	250.0	260.0	102.3	94.2
Yield of vegetables grown under glass, of which:	**670.0**	**790.9**	**760.0**	**715.0**	**113.4**	**96.1**
Tomatoes	375.1	443.9	428.0	415.0	114.1	96.4
Cucumbers	200.7	224.2	215.0	195.0	107.1	95.9

Table 18. Vegetable production in Poland (thousand tonnes); *Source: Market analyses by the Institute of Agricultural and Food Economics.*
[1] Result estimation by the Central Statistical Office as of 17 December 2010.
[2] Projection by the Institute of Agricultural and Food Economics.

er (225,000 tonnes). The fundamental reason behind low crops of fruits and vegetables in 2010 was unfavourable weather, as well as floods and water ponding in the fields that resulted in lower quality of vegetables. In 2011, the acreage of field vegetable growing increased by close to 5%. It is estimated that production of field vegetables will be almost 13% higher and will amount to 4.8 million tonnes. The highest increase will be posted by onions (by 30%), cauliflowers and cabbage (by close to 15%), beets (by 12.6%) and other vegetable varieties (by ca. 4%). In spite of a slight increase in crop area, the production of vegetables grown under glass will decrease by nearly 6% to the level of 715,000 tonnes, of which cucumbers by 9% and tomatoes by 3%. The decrease in production of vegetables grown under glass may also be the result of the serious crisis in spring 2011 when it was announced that the possible source of the food poisonings epidemics caused by the EHEC bacteria strain in Germany were allegedly fresh vegetables. Due to the temporary decrease in demand, the producers of vegetables sold at that time suffered considerable losses. *Table 18.*

In 2010, the financial situation of enterprises from the fruit and vegetable sector was very good, although their financial results declined slightly as compared to the previous year. The relation of net and gross profit to revenues was 4.2% and 3.2%, respectively (in 2009 it was 5.7% and 4.9%). Operating profitability was 10.4% and revenue accumulation was 7.5%. In 2010, the differences in financial situation of enterprises were higher: almost 78% of companies posted net profit and their share in sale exceeded 75% (in 2009, it was 80% and 83%). The long production and trade cycle and the high share of loans in financing the working capital result in relatively low liquidity of the industry. As it has been comfortably stable for years, it allows timely fulfilment of current liabilities.

Organisation of the Polish fruit and vegetable market

The basic requirement of eligibility to support for the horticultural sector from EU and domestic public funds is establishing producer groups and organisations. The purpose of producer groups and organisations is to concentrate supply and sell their members' products, planning production and adjusting it to market needs in terms of both quantity and quality, reducing production costs, price stabilisation and promoting environmentally friendly methods and technologies of cultivation as well as management of sewage and waste. Groups and organisations may receive different kinds of financial aid for such measures.

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). The value of products placed on the market by producer groups and organisations currently accounts for ca. 15% of the Polish horticultural production. The average degree of organisation of the horticultural market in EU Member States is approx. 35%.

In August 2011, there were 194 fruit and vegetable producer groups and 45 producer organisations registered in Poland.

EU support on certain plant product markets

Tobacco market

Poland ranks second in the European Union as to tobacco size production, after Italy. In 2010, tobacco was grown by over 12,000 holdings on the area of 16,900 ha. Total production was 31.3 thousand tonnes. Due to unfavourable weather in 2010, the harvest was over 25% lower than expected.

In 2010, tobacco planters received single area payments from EU funds and supplementary payments from the national budget. 2010 was the first year when supplementary payments were applied solely as decoupled payments.

PLN 196,342,030 were earmarked for decoupled payments.

Hop market

Poland is the third hop producer in the EU, outpaced by Germany and the Czech Republic. In 2010, the area of hop cultivation decreased to 1,752.98 ha. Due to the 2010 flood, large areas of crops were flooded and no longer used for production. Therefore, the yielding area was reduced to 1,400 ha by the end of the year. In 2010, production of hops was 1,866.74 tonnes, the equivalent of 120 tonnes of alpha acids. Slightly more than one thousand farmers cultivated hops in 2010.

In 2010, hop planters received single area payments from EU funds and supplementary payments from the national budget. The total value of supplementary support for the sector in 2010 was EUR 770,000 or ca. PLN 3 million.

In 2010, also ***de minimis*** aid was launched for holdings involved in hop production. The rate of aid from domestic funds was PLN 14,000 per 1 ha of hops. The cap amount was the equivalent of EUR 7,500 per one farmer. The aid, whose total amount was PLN 22,239,000, was paid out to 1,083 hop planters.

Seed production market

The production of seed material of agricultural plants increased in 2010. Compared to 2009, 12.3% more cereal seeds were qualified for sale. The highest increase in seed production was posted by winter wheat (by 33.4%) and rye (by 14.3%). The supply of maize seeds increased by 12.5% and of oat seeds by 7.1%. The supply of barley and triticale seeds declined slightly.

In 2010, the area of seed plantations decreased. The area of certified seed plantations was 92,500 ha and was 12.4% lower than in 2009.

The area of cereal seed plantations decreased by 17.7%. The greatest decrease was posted by rye seed plantations (by 50%) and winter triti-

cale (by 26.8%). Among spring cereals, oat seed plantations decreased by 36.8%. Slight decreases were also posted by spring barley and maize. The area of land under spring wheat and cereals of lesser significance (durum wheat and spring rye) increased. In rye seed production, the share of hybrids exceeds 37% and these are mainly foreign varieties. The share of high-quality varieties of winter wheat remains high. In 2010, quality wheat varieties accounted for 59% of the area of qualified winter wheat plantations.

As concerns the 2011 structure of cereal seed plantations, the majority were domestic varieties (56.9%), but their share in reproduction is decreasing systematically. Foreign varieties dominate the production of spring barley seeds (72%) and winter barley seeds (90%). Foreign varieties of winter wheat (48%), rye (41%) and spring wheat (41%) also have a considerable share. The significance of varieties from the Common Catalogue, not registered in Poland, is increasing. In 2010, their share in the area of cereal seed plantations was 22%, while two years earlier it was 15.5%.

In 2010, the area of potato seed plantations increased by 6%, but it is not a trend. The area of potato seed plantations has remained stable for several years at the level of approx. 5,000 ha.

In 2010, the area of leguminous plant seed plantations increased by 65%. There are three major species: narrow leaved lupin, field pea and European yellow lupine. Their plantations constitute in total over 90% of the area of leguminous crops for seeds. In 2010, area sown with each of the species increased considerably, particularly of narrow leaved lupin.

In 2010, the area sown with small-grained papilionaceous plants made up 7.1%, as compared to 7.7% in 2009. Among papilionaceous plants, the vast majority of seed production is taken up by red clover whose plantations constitute 95% of the area where small-grained papilionaceous plants are cultivated.

The area of grass seed plantation has been relatively stable. Two species predominate: perennial ryegrass (39.9%) and red fescue (23.1%). Italian ryegrass, Westerwold ryegrass and smooth-stalked meadowgrass also have a considerable share.

In the National Register of Agricultural Plant Varieties, the number of varieties of agricultural plants is 1,217. In 2010, the share of foreign varieties in the Register was 51%. The highest shares of foreign varieties in the Register are posted by rape, maize and sugar beet – the species dominated by hybrids.

In the 2009/2010 season, there was a visible revival of seed material sale. Sale of certified seeds of agricultural plants increased by an average of 23.8%. The sale of seeds of all the major species increased, with the exception of fodder beets: of cereals by 18%, grass by 26.3% and potatoes by 40%.

The very low share of certified seeds in sowing persists. The highest quantities of certified seeds are used in cultivating spring wheat and winter barley, while the lowest quantities are used in growing rye. The share of certified seed potatoes was only 4.4% in 2010.

ANIMAL PRODUCTION

Meat market

In 2010, production of pork, beef and poultry meat calculated in hot carcass weight was 3.6 million tonnes. It was 8% higher than in 2009, mainly due to an increase in live poultry production (by 10%) and live pigs (by 9%). Due to high prices of cereals and feed, profitability of animal production decreased from the second half of 2010. Projections by the Institute of Agricultural and Food Economics – National Research Institute for 2011 assume a 2% increase in the production of three basic livestock types in hot carcass weight. Pork production will be at the level similar to that in 2010 (1.8 million tonnes), while beef production will be 4% higher and poultry production will be 5% higher (1.4 million tonnes). The profitability of beef production improved in 2010 as higher production allowed considerably higher imports, higher demand translated into higher purchasing prices and consequently improvement in rearing profitability.

In 2010, global production of pork was 3% higher than in 2009. The scale of the increase was stimulated by China where higher demand and the program of government subsidies for pig production resulted in an increase in production by 4.4%. In the EU, pork production was 4% higher than in 2009, and the increase took place in EU-15 countries. In the United States, pork production decreased in 2010 by 2%. USDA projections say that in 2011 pork production would increase in China by further 3%, and in the United States it would not change as compared to 2010. A decrease in production is expected in Central and Eastern European countries.

Poland achieved a visibly positive balance of international trade in meat. In 2010, it was 541,000 tonnes – it doubled compared to 2009 when it was 273,000 tonnes. *Table 19.*

In 2010, total meat consumption was 74.6 kg per capita. The highest share was posted by pork (42.4 kg per person), followed by poultry meat (25 kg per person). Beef consumption was the lowest (3 kg per person). As compared to 2009, consumption of poultry meat increased by 1 kg per person, consumption of pork decreased slightly (by 0.2 kg per person), and beef consumption decreased by 0.6 kg per person.

Pig stock and pork production

The pig stock increased in 2010 thanks to the improvement in economic conditions of their production. In July 2010, the pig population was 14.9 million or 0.6 million (4.2%) more than in the analogous period of the previous year. In the second half of 2010, the conditions of pig rearing deteriorated due to a decrease in purchasing prices of live pigs and an increase in the prices of cereals. According to data of the Central Statistical Office, at the end of March 2011 the pig population was 13.1 million, which shows a decline by 865,000 (6.3%) as compared to March 2010 when the population was 14 million.

Pork production fluctuated due to the changes in the pig population. In 2009, pork production was 1,717,000 tonnes and was 220,000 tonnes (11%) lower than in the previous year.

Pork production saw a partial rebound in 2010. According to data that are not final, in 2010 pork production was 1,863,000 tonnes – it was an increase by 146,000 tonnes (8%) as compared to 2009 (1,717,000 tonnes).

Projections by the Institute of Agricultural and Food Economics show that in 2011 pork production may be 0.2% lower than in the previous year and reach the level of 1,860,000 tonnes. From the 2010 harvest, rearing pigs became less and less profitable, particularly in the first quarter of 2011. The prices of pigs decreased systematically, with increasing prices of cereals and industrial fodder. Consequently, the pig population census carried out by the Central Statistical Office showed that in July 2011 the pig population was 13.5 million and was lower than in the previous year by 9.1% or by 1,357,000, of which of farrowing sows by 14.6% and of piglets by 13.1%. *Table 20.*

In 2009, the pig purchasing price was PLN 4.59/kg and was higher by PLN 0.52/kg (12.8%) compared to the 2008 price (PLN 4.07/kg) and higher by PLN 1.07/kg (30.4%) than the 2007 price (PLN 3.52/kg). In 2010, the price decreased by PLN 0.63 (13.7%) compared to 2009 and was PLN 3.96.

In July 2011, the average purchasing price of live pigs was PLN 4.72/kg. It was higher than the price from July 2010 by PLN 0.37/kg (+8.5%). In the third quarter of 2011, the purchasing price of pigs was PLN 4.80/kg – it was 11% higher than in the previous year. The Institute of Agricultural and Food Economics estimates that in December 2011 the purchasing price may be higher than in December 2010 by 15-18%. *Table 21.*

	Production	Exports*	Imports*	Trade balance
Pork	1 863	446	585	-139
Beef	390	340	22	318
Poultry	1 374	444	82	362
TOTAL	3 627	1 230	689	541

Table 19. Production and international trade on meat markets in 2010 (thousand tonnes); * Exports and imports in the meat equivalent. *Source: Meat Market. Status and Prospects, May 2011, Institute of Agricultural and Food Economics.*

Years H1	Population over 20 kg	Livestock production in thousand tonnes	Changes in production (%%) as compared to the previous year
2008	**x**	**2 483**	**-10.5**
H1	12 081	1 337	-7.9
H2	10 717	1 146	-13.4
2009	**x**	**2 202**	**-11.3**
H1	9 948	1 115	-16.6
H2	9 824	1 087	-5.1
2010	**x**	**2 388**	**8.4**
H1	9 952	1 185	6.2
H2	10 318	1 203	10.7
2011 projection	**x**	**2 391**	**0**
H1	10 491	1 266	6.8
H2	9 559	1 125	-7.0

Table 20. Pig population and production; *Source: Institute of Agricultural and Food Economics – National Research Institute, Meat Market 2011.*

Years and months	EU-27	Poland	Germany	Denmark	Prices in Poland as a % of the prices in:		
					EU-27	Germany	Denmark
2007							
- Jul	146.12	144.81	150.74	121.73	99.2	96.2	119.1
- Dec	132.11	129.82	135.40	112.06	97.8	95.9	115.8
2008							
- Jul	169.22	185.13	178.08	139.51	109.4	103.3	131.4
- Dec	144.36	150.27	150.82	125.21	104.1	99.6	120.0
2009							
- Jul	156.48	160.62	158.40	134.27	102.6	101.4	119.6
- Dec	131.92	125.81	134.34	113.78	95.4	93.7	110.6
2010							
- Jul	149.09	144.29	150.60	137.42	96.8	95.8	105.0
- Dec	139.44	133.66	149.40	126.26	95.9	89.5	105.9
2011 - Jul projection	**157.03**	**158.44**	**160.83**	**141.49**	**100.9**	**98.5**	**112.0**

Table 21. Market prices of pigs in the EU (EUR/100 kg of carcass weight) and prices in Poland expressed as a% of those prices (July and December of 2007-2010 and projection for 2011); *Source: Institute of Agricultural and Food Economics, Meat Market 2010.*

Years H1	Population over 1 year old	Livestock production in thousand tonnes	Changes (%%) as compared to the previous year
2008	**x**	**2 483**	**-10.5**
H1	4 061	1 337	-7.9
H2	4 260	1 146	-13.4
2009	**x**	**2 202**	**-11.3**
H1	4 179	1 115	-16.6
H2	4 228	1 087	-5.1
2010	**x**	**2 388**	**8.4**
H1	4 171	1 185	6.2
H2	4 267	1 203	10.7
2011 projection	**x**	**2 391**	**0**
H1	4 173	1 266	6.8
H2	4 288	1 125	-7.0

Table 22. Cattle population and livestock production in Poland; *Source: Institute of Agricultural and Food Economics, Meat Market 2011.*

Specification	2007	2008	2009	2010	2011 projection
Commercial slaughter, of which:	**2 221.8**	**2 000.4**	**1 859.5**	**2 023.0**	**2 020.0**
pigs	1 859.0	1 822.6	1 453.0	1 617.9	1 610.0
cattle and calves	350.6	367.8	383.9	390.1	405.0
Meat industry output	**1 451.5**	**1 214.5**	**1 101.0**	**1 148.0**	**1 136.0**
Slaughter pigs	1 221.4	1 019.7	909.3	923.8	910.0
Slaughter cattle and calves	229.3	194.1	187.6	218.7	225.0
Production of meat products	**1 134.9**	**1 116.0**	**1 026.2**	**1 168.0**	**1 200.0**
Output of large and medium-sized companies, of which:					
pig slaughter	953.1	873.6	814.6	844.9	835.0
cured meat production	754.9	708.7	623.5	684.2	720.0

Table 23. Processing of meat from slaughter animals (in thousand tonnes); *Source: Institute of Agricultural and Food Economics, Meat Market 2011.*

Specification	2009	2010	2009=100
Output in reference prices	28 578	27 523	96.3
Net profit	505	1 029	203.8
Share capital	5 804	6 153	106.0
Free own funds	691	834	120.7
Long-term debt	1 521	1 451	95.4
Investments	610	769	126.0

Table 24. Financial condition of the meat industry (in PLN millions); *Source: Institute of Agricultural and Food Economics, Meat Market 2011.*

Cattle population and beef production

According to data of the Central Statistical Office, in December 2010 the cattle population amounted to 5,559,500 and was lower by 30,700 (0.5%) than a year ago and lower by 164,500 (2.9%) than in June 2010. Compared to December 2009, the number of cows decreased by 42,700 (1.6%) to the level of 2,635,500 and compared with June 2010, it decreased by 20,200 (0.8%).

The slight decrease in the cattle population is due to lower number of cows and calves. The population of young cattle aged 1-2, higher than in the previous year, proves that farmers remain interested in livestock production. As stated by the Central Statistical Office, the number of suckler cows in increasing which proves that the decisions on the part of some agricultural holdings to produce live cattle are being reinforced. In December 2010, the herds of suckler cows increased by 14.1%.

In the first half of 2011, livestock production reached 376,000 tonnes and was 9% higher than in the analogous period of the previous year. It is projected that in the entire 2011 live cattle production would be higher than in 2010 by 3.9%.

In 2010, global production of beef was 57.3 million tonnes and was virtually the same as in 2009. The USDA projects that the global beef production in 2011 would be at a similar level (57.4 million tonnes). Projections of the European Commission for 2011 assume a decline in beef production in EU-27 by 2%. Beef production is also expected to decrease in the United States (by 1%), Argentina (by 4%) and China (by 2%). It is due to increasing prices of feed on global markets. An increase in beef production is only expected in Brazil (by 3%). *Table 22.*

The increase in beef production in 2010 in Poland resulted in considerably higher exports that translated into higher purchasing prices and consequently improvement in rearing profitability.

In 2010, the average purchasing price for cattle was PLN 4.56/kg and was 0.8% higher than in 2009. After 2009 when the price increase was 12.2%, it was another year when prices increased after several years of stagnation and profitability of rearing cattle for slaughter increased, in spite of higher prices of cereals and feed. In the first half of 2011, the average purchasing price of cattle was 21% higher than in the analogous period of 2010. In the light of the projected price developments in the European Union, the Institute of Agricultural and Food Economics prognoses that in the second half of 2011 cattle purchasing prices would be 30% higher than in the second half of 2010. It is a stimulus to keeping calves.

Meat processing

In red meat processing, 2010 was a year of revival. The number of slaughtered animals increased by 4.2% and production of meat products by 16.5% as compared to 2009. Industrial slaughter of pigs increased by 11.3% and in industrial companies by 2%. Taking into account the worse economic situation in the production of live pigs from autumn 2010 and the current changes in output of small and medium-sized enterprises, it is projected that in 2011 the level of industrial slaughter would be similar or slightly lower than in 2010 (by 1-2%). The increasing trend in industrial slaughter of cattle and in production of all major types of meat products will continue. *Table 23.*

The financial results of the meat industry in 2010 were positive and on the safe side. Its net profit increased (from PLN 505 to 1,029 million), share capital increased (from PLN 5.8 to 6.1 billion) and own working capital also increased (from PLN 0.7 to 0.8 billion) as compared to 2009. In the first half of 2011, 71% of companies from the sector posted a profit and their share in turnover was 84%. The financial results ensure maintaining a safe level of liquidity and low level of long-term debt. In 2011, companies continue to increase the value of free own funds. The financial condition of the entire sector in 2011 is not a threat to continuation of companies' operation and further development. It shows that the majority of companies are able to generate more profit. *Table 24.*

Poultry and egg market

In 2010, poultry meat production amounted to 1.4 million tonnes and was 10% higher than in 2009. Imports increased by 19% to reach the level of 82,000 tonnes, while exports increased by 30%, i.e. to the level of 444,000 tonnes. Total supply of poultry meat amounted to 1,456,000 tonnes and in-

creased by 10.5% compared to the previous year. 1,012,000 tonnes were left for domestic consumption, i.e. 3.7% more than in 2009. The share of exports in poultry meat production increased to 32%, while in 2009 the share was 27%. The increase in poultry production was even in the first and the second half of 2010, while the increase in exports was much higher in the first half-year. In 2010, the average price of fodder declined by 3.5% (from PLN 1.13 to 1.09/kg), but it did not result in improved production profitability. The relation of livestock/feed prices, which is decisive to rearing profitability, worsened due to the decrease in the purchasing prices of live poultry. The average price for chickens was PLN 3.18/kg or 5.1% less than in the previous year. The less favourable relation between the prices of livestock and feed in 2010 did not worsen the profitability of rearing to a considerable extent and it continued to ensure high production profitability. In 2010, average prices of broiler chicks were 4.6% higher than in the previous year. It proves that the interest of poultry keepers in the development of livestock production is not withering away. *Table 25.*

Between 2008 and 2010, annual purchasing prices of broiler chicks and turkeys fluctuated. The highest annual prices of both were posted in 2009. The purchasing prices of chickens was then PLN 3.33/kg and of turkeys it was PLN 4.82/kg.

In July 2011, the purchasing price of chickens was PLN 3.62/kg and in the case of turkeys the price was PLN 6.01/kg. The increase was by PLN 0.28/kg (+8.4%) and by PLN 1.40/kg (+30.4%), respectively, compared to July 2010.

In 2010, poultry meat was less expensive than other products containing animal protein. The average level of its retail prices was 4% lower than in 2009.

Period	Production	Imports	Supply	Exports	Domestic consumption
2008	1 165	68	1 233	295	938
2009	1 248	69	1 317	341	976
2010	1 374	82	1 456	444	1 012
2011 projection	1 470	85	1 555	500	1 055

Table 25. Poultry meat balance (in thousand tonnes); *Source: Institute of Agricultural and Food Economics – National Research Institute, Poultry and Egg Market 2010.*

Years	Poultry meat	Cured meat	Tinned meat	Cured meat products
2008	1 413	104.5	33.1	38.5
2009	1 426	103.7	34.8	43.3
2010	1 550	104.0	36.0	46.0
2011 projection	1 640	104.5	37.5	48.5

Table 26. Industrial production of poultry meat and selected meat products (in thousand tonnes); *Source: Institute of Agricultural and Food Economics, Poultry Market 2011.*

Processing

Industrial production of poultry meat increased by 8.7% in 2010. The growth rate was over twice as high as in 2008 that was a good year in this respect. Industrial production of poultry meat fluctuated strongly in particular months of 2010. The share of chicken meat in the structure of poultry meat production was close to 75%. Production of the main ranges of processed poultry products (cured meat, canned meat and cured meat products) increased by 2.3% in 2010. It is anticipated that in 2011, poultry processing companies would produce 1,640,000 tonnes of meat, i.e. 6% more than in 2010. Production of cured meat products will be 2.4% higher than in the previous year. The highest increase is pro-

jected for the production of cured meat products (by 5.4%) and the lowest for cured meat (by 0.5%). *Table 26.*

The average financial results of the poultry industry in 2010 were very good. After 2009, it was the second period of significant improvement in the economic condition of poultry companies. The return on sales before and after tax improved. Gross profit-to-earnings ratio increased in 2009 to 2.02 from 1.84, and net profit-to-earnings ratio was the highest in the entire five-year period and amounted to 1.75, against 1.49 in the previous year. The average level of investment measured in terms of capital expenditures in relation to depreciation also improved in 2010.

Egg market

Egg production in Poland displays a rising trend. In the past three years, the increase was several percent annually. Domestic production of eggs in 2009 (consumption and hatching eggs) amounted to 10.9 billion and increased by 4 million (4%) compared to 2008, when it was 10.5 billion. The increase in domestic production of eggs was associated primarily with an increase in the number of eggs from one laying hen (by 4.1%) to 226 eggs in 2009, with the increase in annual average growth in the population of laying hens by 39.6 thousand, i.e. by 0.1%.

According to preliminary estimates, total egg production in 2010 amounted to 630 thousand tonnes (11.2 billion) and was 2.4% (15 thousand tonnes) higher than in the previous year. Production of table eggs increased by 3.6% (20 thousand tonnes) to the level of 575 thousand tonnes (10.2 billion). This growth was achieved mainly by improving the laying capacity of hens, which increased by over 4%, while the production stock of hens (about

48 million) stood at the level from 2009. The increase in production was stimulated by growing exports of eggs and egg products. *Table 27.*

The level of egg production in 2011 is estimated at 520 thousand tonnes. As pointed out by the Institute of Agricultural and Food Economics, it will be the result of a lower number of hatched chicks of laying hens for commodity production and a reduction in the number of hatching eggs for laying husbandry.

Due to high egg production across the EU and the relatively high prices of eggs in Poland, egg import in 2011 may be higher than in 2010, while export is likely to stabilise at the level from 2010.

In 2010, a strong upward trend in retail prices of eggs, that started in mid-2007, continued. Compared to the previous year, the average increase in the prices of eggs was 5.4% or two times higher than the increase in the prices of all foods. In the years 2007-2010 (2006 = 100), the prices of eggs increased by 34.5%, with an increase in the prices of all food by 14.6%. In the first quarter of 2011, retail prices of eggs, however, showed a downward trend. In March, they were 4.8% lower than in the corresponding period of 2010. The downward trend in the consumption of eggs observed between 2006 and 2008 was halted in 2009, when consumption amounted to 7.8 billion eggs (206 eggs/person). In 2010, the consumption of eggs increased to 208 per capita, and it was about 1% (2 eggs) higher than the previous year.

Export is the main factor stimulating the development of production. Otherwise, egg production in Poland would be lower. It is also evidenced by the high level of self-sufficiency in production, which in 2010 amounted to 136%. This means that the production volume exceeds consumption of eggs in Poland by 36%.

The upward trend in production of egg products was initiated in 2004. The reason for the high growth in production dynamics was the increasing foreign demand for Polish products and increasing exports that followed in the footsteps of demand. In 2009, exports of processed eggs increased by 17%. The upward trend was inhibited due to high prices of eggs. Purchase prices of eggs for industrial processing declined since the second quarter of 2009, but it did not result in a noticeable increase in demand from the processing industry. It is estimated that in 2010, the volume of egg products was 6.7% lower than in the previous year, with a 2% increase in the value of sales.

Specification	2008	2009	2010	2011
Total production	**590**	**615**	**623**	**575**
- of which table eggs	534	555	559	520
Table egg imports	20	29	28	25
Table egg exports	133	150	171	160
Domestic consumption	421	434	416	385
Self-reliance (%)	127	129	136	136

Table 27. Egg balance (in thousands); *Source: Institute of Agricultural and Food Economics, Poultry and Egg Market 2011.*

Milk market

Milk production in Poland is one of the most important branches of agricultural production. According to data of the Central Statistical Office, in 2009 the value of commodity milk production amounted to PLN 9.3 billion and account-

ed for more than 16% of the total value of commercial agricultural production. Total milk production in Poland in 2010 amounted to 12.28 million tonnes and was 0.1% lower than in 2009. However, the milk yield of cows is constantly improving. In 2010, the average productivity of milk cows in Poland amounted to 4,674 l/cow, an increase of 1.7% compared to 2009. At the end of 2010, the number of milk cows decreased by 2.2% to 2.529 million in comparison with the end of 2009. It was the result of a decrease in the number of milk producers in Poland. The number of milk cows covered by the evaluation of use value is increasing – at the end of 2009 the assessment covered almost 24% of the population of milk cows and their average milk yield reached the level of 6,980 kg.

Commercial production of milk is pursued by approx. 185,000 suppliers, of which 177,000 wholesale suppliers and ca. 15,000 direct suppliers. Since the introduction of the milk quota system in Poland, the number of milk suppliers decreased considerably, primarily due to abandoning this profile 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. The process is also stimulated by EU subsidies to investment projects related to modernisation of agricultural holdings.

Thanks to the changes in the structure of holdings and an increase in the number of holdings producing on a larger scale, the marketability of milk production is improving on an annual basis and thus the milk quota assigned to Poland under the milk quota system can be utilised to a considerable extent. In quota year 2009/2010, 9.11 billion kg of milk were purchased – this means that wholesale providers used ca. 95% of the quota which they were granted.

As at August 2011, a total of 290 entities were involved in purchasing milk, 200 out of which also pursued milk processing. The figure has been gradually decreasing since quota year 2004/2005 – so far it has decreased by ca. 18.5%.

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 stabilise 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 pay a fine. In quota year 2009/2010, Poland was assigned national quota of 9.76 billion kg, of which ca. 9.6 billion kg for wholesale supplies and ca. 160 million kg for direct sales. Those quotas were not exceeded. In the current quota year 2011/2012, the national quota will be 1% higher and thus it will amount to ca. 9.86 billion kg.

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 storage of butter and aid for the consumption of milk and milk products in educational establishments. The decision to launch other support mechanisms, i.e. aid for skimmed milk powder used for the production of casein and caseinates, aid for skimmed milk powder used for the production of feed and export refunds for milk products is made by the European Commission based on the price situation on the milk market.

"Aid for consumption of milk and milk products in educational establishments"

The mechanism was introduced at the time of Poland's accession to the European Union. It is implemented by the 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 EU budget;
- Additional financing from the Milk Promotion Fund introduced in kindergartens and lower secondary schools in 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 primary schools free of charge.

Educational establishments, suppliers (dairies, intermediaries), gmina offices and social organisations are all eligible beneficiaries of aid. In the school year 2010/2011, over 2.38 million pupils were covered by the programme of co-financing the consumption of milk and milk products in educational establishments. According to initial data, a total of ca. 37,400 tonnes of milk and dairy products were delivered to schools in that period.

Processing

In 2010, production of processed liquid milk increased to 2,809,500 tonnes, of which milk for processing (sold to other diary plants for further processing) to 1,339,000 tonnes. The production of the majority of milk products also increased, with the exception of condensed milk and cream (a decrease by 1,800 tonnes), milk powder (by 24,200 tonnes), maturing cheeses, processed cheese, cream and butter. Production of yoghurts and other fermented milk drinks increases dynamically year by year: in 2010 it increased by over 7% and amounted to 723,000 tonnes. The trend is confirmed by the results from the first half of 2011, when the production of yoghurts and fermented milk drinks increased by another 5.7% as a result of increasing domestic demand and developing exports.

The consumption of milk together with the milk intended for dairy products (without the milk processed into butter) reached 190 l per citizen. In the structure of dairy product consumption, the consumption of maturing cheeses, curd and dairy drinks remains stable. After a period of relative stabilisation, there was another decrease in butter consumption.

In 2010, the financial condition of companies processing milk deteriorated slightly. In comparison with 2009, the value of sales increased, employment declined by nearly 2% and restructuring processes are underway. Nevertheless, there was a decline in the gross and net profitability indicators. The traditionally high liquidity improved and the current liquidity ratio increased from 1.49 to 1.51. The rate of investment also increased, which may promote the dairy industry's adjustment to function after the elimination of milk quotas. 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 the CAP reform. The number of entities authorised to sell milk on the single European market decreased from 316 in 2010 to 313 in September 2011. The number of entities buying milk in decreased from 279 in 2010 to 274 in July 2011. *Table 28.*

Specification	2008	2009	2010
Number of dairy plants	224	214	205
Employment (No of people)	35 818	35 574	34 870
Sales (PLN billion)	20.9	20.9	23.1
Profitability ratio (%)			
- gross	1.08	3.85	2.68
- net	0.58	3.36	2.21
- capital formation	3.29	6.19	4.86
Current liquidity	1.47	1.49	1.51
Investment rate	1.30	1.03	1.34

Table 28. Economic and financial results in the milk processing sector; *Source: Institute of Agricultural and Food Economics, Milk Market.*

Honey market

According to data from the Central Statistical Office, honey production in Poland in 2010 amounted to 12,500 tonnes, i.e. below average production (14,500 tonnes) for the last 10 years. Slightly over 16% of honey produced in Poland was sold to purchasing centres. The remaining honey produced was allocated for direct sale where beekeepers obtain the highest prices. Poland has recorded imports of honey exceeding exports for many years, similarly to other EU Member States. In 2010, imports exceeded exports by 6,500 tonnes. Poland imports the largest quantities of honey from Ukraine, China and Germany.

The demand for bee honey sold straight from apiary (direct sales) rose dynamically and prices of honey increased. Average price of honey sold directly in 2010 amounted to PLN 21.7 per kg. Beekeepers sold rape honey and polyfloral honey for PLN 16-17 per kg. The price of acacia, linden, buckwheat and honeydew honey from broadleaved forests amounted to 20 PLN/kg or slightly more. The price of the most expensive heather honey and honeydew honey from coniferous forests was 30 PLN/kg and 26.9 PLN/kg, respectively.

The Ministry prepares **national apiculture support programmes** (financed in 50% from the state budget and in 50% by the EU), pursuant to Council Regulation (EC) No 1234/2007 of 22 October 2007 establishing a common organisation of agricultural markets and on specific provisions for certain agricultural products (Single CMO Regulation) (OJ L 299, 16.11.2007, p. 1, as amended) and Commission Regulation (EC) No 917/2004 of 29 April 2004 on detailed rules to implement Council Regulation (EC) No 797/2004 on actions in the field of beekeeping.

The first programme was implemented in the years 2004/05-2006/07 – the budget of the programme was EUR **11.7 million**.

The second programme was implemented in the years 2007/08-2009/10 – the budget of the programme: EUR **13.3 million**.

The third programme for the years 2010/11-2012/13 is currently implemented – the budget of the programme: EUR **15.1 million**.

During the three years of the programme's implementation (2007/08-2009/10), the group of its beneficiaries included beekeepers owning in total over 1 million of bee colonies out of the 1.1 million registered by Poviat Veterinary Officers. Over 90% of funds available under the programme were used, out of which almost 90% was allocated for refunding anti-varroatosis products and the purchase of bees.

In the years 2010/11 – 2012/13, pursuant to the ***Conditions of applying for the refund of the costs incurred during the implementation of the mechanism: Support for the market of beekeeping products***, published by the Ag-

ricultural Market Agency, the following net costs (net of VAT) are refunded:

- beekeeping training, courses and conferences (100% refund);
- purchase of anti-varroatosis medicines (100% refund);
- purchase of trailers (platform trailers) for transporting beehives (refund of up to 60% of unit price);
- analyses of physicochemical properties and pollen analysis of honey (100% refund);
- purchase of queen bees with known use value, purchase of packages and nucleus bee colonies (refund of up to 70% of unit price);
- purchase of new beekeeping equipment (refund of up to 60% of unit price);
- purchase of laboratory equipment (refund of up to 60% of unit price).

Beekeepers who are independent or dependent owners of holdings with the economic size equal or exceeding 4 ESU (European Size Unit)* cannot use the aid for purchase of beekeeping equipment.

Fish market

The supply of fish and sea fruit to the domestic market in 2010 amounted to 507 000 tonnes and was slightly higher than in 2009. A significant reduction in domestic catches (by 17%) was more than compensated by an increased import of raw materials (by 5%), only slightly contributing to a decline in exports (by 2%).

Fish catches in the Baltic Sea amounted to 110 000 tonnes in 2010, which marks a fall of over 16% compared to the previous year. Sprat catches dropped by 30%, while landings of species of the greatest economic importance for the domestic market, i.e. herring and cod, increased. The changes in catches resulted from rotational system of fishing for cod and the beginning of another stage of scrapping of vessels. The use of available catch limit was lower again and amounted to approximately 60%. Deep sea fish catches were lower than in 2009 (by 25%) and amounted to 61 000 tonnes. In total, sea catches were lower by 45 000 tonnes in 2010 as compared to the previous year.

The situation of domestic inland fisheries was unfavourable. As a result of poor weather conditions, excessive fish mortality, damages caused by flood, problems with water quality and diseases, production and catches of freshwater fish declined to 48 400 tonnes. The share of aquaculture in total freshwater fish production dropped by 1.1 percentage point to 66%.

The *table 29* presents the most important data concerning fishing in 2010.

Specification	2006	2007	2008	2009	2010
Sea catches including:	125.6	133.4	126.0	211.6	170.8
Baltic catches	104.9	107.8	94.6	130.9	110.1
Deep-sea	20.7	25.6	31.5	80.7	60.7
Freshwater catches and aquaculture	54.1	52.4	53.6	51.7	48.4
Total domestic catches	179.7	185.8	179.6	263.3	219.2
Import	587.7	642.0	730.7	692.2	770.2
Exports	296.8	345.6	387.9	452.3	482.8
Supply of fish for consumption on the domestic market	470.6	482.2	522.4	503.2	506.6

Table 29. Fish and seafood balance in Poland (by live weight in thousands of tonnes); *Source: Fish Market, Institute of Agricultural and Food Economics.*

Foreign trade in fish, fish products and seafood, both in terms of imports and exports, exceeded EUR 1 billion in 2010. Those products accounted for a major share in foreign trade in agri-food products. The reduction of domestic catches and a subsequent significant decline in national catches and the resulting decrease in the so-called direct exports from vessels, which was compensated with exports of other product groups and record prices of salmon on the world markets.

In 2010, the catches of sprat amounted to 58 800 tonnes, i.e. approx. 26 000 tonnes less than in the previous year. Catches of herring increased in yet another year. The main determinants of the increase in catches include an improvement of profitability as a result of a 10% growth of prices paid to fishers and an increased interest of vessels excluded from fishing for cod (due to the so-called fishing rotation) in other fish species. *Table 30.*

The sales of freshwater fish for consumption by fish farms decreased by 9% in 2010, i.e. to 34 200 tonnes, out of which 28 100 tonnes were sold on the domestic market and 6 100 tonnes exported. The supply on the domestic market was supplemented with imports of over 90 000 tonnes of freshwater fish, including 57 500 tonnes of panga.

The consumption of fish, fish products and seafood amounted to 13.26 kg in 2010, which marks a growth of 1% compared to the previous year. The consumption of seafood increased, while the demand for sea fish was stable and the consumption of freshwater fish declined. Three species, namely Alaska pollock, herring and panga, account for a half of total fish consumption in Poland.

Processing

The data on total production of large fish processing plants point to a good condition of fish processing in Poland in 2010. Therefore, it seems that the global economic crisis did not have an adverse impact on this industry.

Overall production of the processing plants grew by 40 200 tonnes, i.e. by 14.2% compared to the previous year. In terms of quantity, the highest increase was recorded for marinades (by 33.4%) and smoked fish (by 26.5%), compared to the previous year. *Table 31.*

The net financial result of the fish processing industry in 2010 was almost 50% lower than in the previous year, but still exceeded its level from earlier years. The decrease in the net profit resulted from a decline in revenues from sales (by 5.6%), despite the higher direct exports by processors (by 12.7%). The share of exports in revenues from sales of products increased by 8 percentage points, to 59%, compared to the previous year.

Investment activity of fish processors has been lower for two years. Investment outlays in 2009 were by over 33% lower than the average for 2004-2008, but in 2010 they increased to almost PLN 200 million.

FOOD CONSUMPTION

The individual consumption increased by 3.2% in 2010, against 2.1% in 2009. Consumption demand was still affected by adverse circumstances, which nevertheless have improved gradually over the year. The average employment in the enterprise sector increased by 0.8% in 2010. However, the unemployment rate grew from 12.1% in December 2009 to 12.3% at the end of 2010. The average real salary in the enterprise sector increased by 0.8%. The adjustment of social benefits for inflation contributed to the growth of Individual consumption. The purchasing power of retirement and disability pensions increased by 3.6%.The strengthening of consumption demand was reflected in the growth of retails sales by 3.1% in 2010 as compared to the previous year, in fixed prices. The sold foodstuffs production grew by 6.7% in 2010 The accelerated economic growth was accompanied by a lower growth rate of prices of consumer goods and services, which amounted to average 2.6% during the year, compared to 3.5% in the previous year. Prices increased by 3.1% between December 2009 and December 2010, with the food prices growing by 4.5%.

As a result of an increase in production and a decrease in prices of pigs for slaughter, retail prices of meat products followed a downward trend in 2010. In December 2010, total retail prices of meat, offal and meat products were 1.2% lower than in December 2009. Prices of

Species	2009	2010	2010/2009
Sprat	84 625	58 843	69.5
Herring	22 528	24 747	109.8
Cod	11 178	12 191	109.1
Flounder	9 656	11 228	116.3
Sea trout, Atlantic salmon	414	420	101.4

Table 30. Baltic catches of major fish species (in tonnes); *Source: Fish Market, Institute of Agricultural and Food Economics.*

Specification	2009	2010	2010/2009
Frozen fish	15 138	15 304	101.1
Fresh fillets	8 357	10 516	125.8
Frozen fillets	24 719	26 031	105.3
Smoked fish	67 064	84 819	126.5
Canned fish products and preserves	47 691	58 034	121.7
Marinades	58 195	77 630	133.4

Table 31. Production of the fish processing sector by selected product groups (in tonnes); *Source: Fish Market, Institute of Agricultural and Food Economics.*

pork fell by 3.5%, while prices of beef and poultry grew by 1.7% and 0.6%, respectively. Retail prices of offal declined by 5,5%, of meat products by 0.9%, including the prices of high quality cured meats by 1.5% and canned meat products and sausages by 1.0%. Prices of cured poultrymeats increased by 0.8% and of poultry offal products by 0.4%. The decline in average prices of meat, offal and meat products in 2010 amounted to 1.4% compared to 2009, with the increase in prices of consumer goods and services by 2.6%. The decrease in prices of meat and meat products was accompanied by an increase in prices of all other animal protein products, i.e. fish and fish products (by 3.8%), eggs (by 5.4%) and dairy products (by 1.9%). In 2010, consumers paid less for pork (by 4.7%) and poultry (by 4%). Beef was more expensive than in 2009 (by 3.7%), as were meat products and cured meats (by 0.4%).

A decline in retail prices of pork did not revive the internal demand. According to the estimates of the Central Statistical Office, the consumption of pork in 2010 was similar to that in 2009 and amounted to 42.2 kg per capita. The consumption of beef fell by 0.6 kg (from 3.6 to 3.0 kg), i.e. by 17%, while the consumption of poultry increased from 24 to 25 kg, i.e. by 4.2%. Due to growing prices, the consumption of meat and offal amounted to 74.6 kg per capita in 2010 and was by 0.4 kg, i.e. by 0.5%, lower than in 2009.

According to forecasts, the consumption of meat in 2011 will drop to 42 kg, i.e. by 0.5%, as a result of a decrease in pig production. The consumption of beef is also expected to decline (by 0.3%) and amount to 2.9 kg, while the consumption of poultry will grow by approx. 1 kg, i.e. by 4%. The increase in the consumption of poultry will compensate for a decrease in the consumption of red meat. As a result, the total consumption of meat and offal will amount to approx. 75 kg per capita and will be by 0.4 kg, i.e. 0.5%, higher than in 2010.

The year 2010 saw the continuation of a downward trend (that started in 2002) in consumption of cereals and cereal products, with a marked decline in consumption of flour and mixed grain bread and a surge in consumption of pastry (biscuits and pastries). Due to the growing prices of cereal products, the expenditure on them remains high despite the decline in their consumption. In 2010, the decrease in cereal products consumption concerned all groups of households. As in the previous years, the consumption of cereal products was the highest in 1-2-person households (8-9 kg per person) and the lowest in 4-person households (below 6 kg per person). The consumption of cereal products is higher in households consisting of more than 5 people. Due to still high prices of flour and bread and low prices of potatoes, the decline in consumption of cereal products is expected to continue in 2011, but its scale will be lower than in 2010. The consumption of bread and flour will decrease, while consumption of pastries and pasta will fall at a lower rate. As regards the structure of cereal products consumption in 2010, the share of bread decreased and yielded to pastries, pasta and flour.

The year 2010 saw the continuation of an upward trend in dairy products consumption, which has been recorded since 2006. The consumption of milk together with the milk for dairy products (without the milk processed into butter) reached 191 l per capita (an increase by 2.1%). The growth of consumption

resulted from increased supply and a relative decrease in dairy products' prices. The consumption of butter fell by approx. 5%. The growth of dairy products consumption in 2010 stemmed from an increase in consumption of yoghurt (by 13.9%), milk beverages (by 11.1%), curd cheese (by 5.8%) and condensed milk and milk powder (by 20%). A decline was recorded in the consumption of cream (by 5.0%), maturing cheese and processed cheese (by 2.5%).

The upward trend in dairy products consumption is expected to continue in 2011. The total production of milk is expected to amount to 193-194 l per capita and increase by 1.0 to 1.5% as compared to 2010.

According to the estimates of the Central Statistical Office, the consumption of fruit in 2010 amounted to 45 kg per capita, compared to 55.5 kg in 2009. The consumption of vegetables amounted to 108 kg per capita in 2010, as compared to 116 kg in the previous year. Retail prices of fruit grew by 9.2% and fresh vegetables by 18.0% in 2010, while the prices of vegetable products were 3.2% higher than in the previous year. Price increases were mainly due to adverse agrometeorological conditions, poor harvest and low reserves of field-grown vegetables from the previous year. As regards the structure of fresh vegetable consumption, the share of tomatoes and onions increased at the expense of consumption of cauliflower vegetables, beetroot, cabbage and carrots.

According to estimates, the consumption of fruit and fruit products was by 5.0% lower in the 2010/2011 season than in the previous one. The decline was the most marked in the case of pears, plums, cherries and apples. The consumption of berries, fruit juices, fruit and vegetable juices, jams, marmalades and dried fruit recorded only a slight decline, while the consumption of other fruit (pineapples, pomegranates, kiwi, figs, dates, etc.), citrus fruit, bananas and fruit products increased.

The total consumption of fruit and fruit products in 2011 is expected to increase by 4-5% compared to the previous year, as is the consumption of vegetables.

The upward trend in prices of eggs started in 2007 continued in 2010. The increase amounted to 5.4% in 2010 and was lower than in 2009 (8.9%). The prices of eggs grew markedly faster in the first (by 10%) than in the second half of 2010 (by 0.9%). The total consumption of eggs in 2010 increased by 0.5% (to 207 eggs per capita) as compared to the previous year. As in 2009, also in 2010 the growth of consumption resulted from an increased use of eggs in food industry and catering services.

According to forecasts, eggs consumption in 2011 may decrease due to the expected decline in production. *Table 32.*

Specification	2005	2006	2007	2008	2009	2010
Grain of 4 cereals intended for processing	119	117	114	112	111	110
Potatoes	126	121	121	118	116	112
Vegetables	110	109	115	115	115	108
Fruit	54.1	54.4	41.0	55.0	55.0	45.0
Meat and offal	71.2	74.3	77.0	75.3	75.0	74.3
of which: meat	66.8	70.0	72.2	71.2	71.0	x
Edible animal fats	6.6	6.1	6.4	6.4	6.1	x
Butter	4.2	4.3	4.2	4.3	4.7	4.4
Milk	173	176	178	182	187	191
Chicken eggs	215	214	209	205	206	207
Sugar	40.1	35.3	39.7	38.4	38.8	37.0

Table 32. Consumption of selected foodstuffs per capita (kg/litres/products); *Source: Institute of Agricultural and Food Economics - National Research Institute, 2011.*

Promotion activities and quality support policy – the Discover Great Food Programme

Support of information and promotion activities on the market of selected agricultural products is the task entrusted to the Agricultural Market Agency. The mechanism offers an opportunity 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 unique Polish products among the customers. Agricultural products can be promoted under this mechanism both on the internal EU market and on external markets. As a part of activities carried out in 2010, the Agency participated in the implementation of both the continued and the newly started programmes, such as "Organic farming", "Meat and meat products – tradition and taste", "Table full of flavours", "Life sweetened with honey", "I choose milk and milk products", "Vegetables and fruit 5 times a day". (***Detailed information on expenditures are provided in the chapter on the Agricultural Market Agency***).

Product quality has become an important distinctive feature on the competitive global market. Food products are, however, 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 at each stage of food production, processing or distribution. Food quality is not only a marketing feature, but mainly an integral element of the food safety evaluation, combining aspects of health safety and public health. To ensure food safety 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 awareness of the society, requires an adjustment of the food safety standards. The process is continuous, since food products have to meet the growing expectations of consumers. They concern to an equal extent commercial, price and sensory attractiveness, as well as health safety. The above is evidenced by research on consumers' preferences carried out by various organisations. The research shows that products attractive in terms of their sensory features are preferred, but also those with particular health benefits. However, consumers do not see the real possibility to influence the quality of the food they eat. Therefore, it is necessary to undertake education-

al actions informing the consumers about their rights, and making producers and distributors aware of their responsibility for the quality and safety of food they place on the market. Identification of producers and food products observing established, high quality standards and informing consumers about them may be a way to motivate to participate in various programmes of high quality food promotion. Programmes implementing these objectives are carried out in many countries of the world, 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 consumers 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 include the Discover Great Food programme, Integrated Production, Q Quality Mark and the mark of compliance with the Polish Standard.

DISCOVER GREAT FOOD PROGRAMME

The Discover Great Food Programme is the programme used by the Minister of Agriculture and Rural Development since 2004 to promote high quality agri-food products. The aim of the Programme is also to motivate producers and processors operating on the European Union market to increase the quality of their products and thus to extend the diversity of food in Poland and the entire EU. The DGF label is also a chance to promote products and companies, both in the country and abroad, by improving the reputation of companies and products.

The DGF Programme also helps consumers choose food products. The DGF label granted to a product by the Minister of Agriculture and Rural Development is an award for the product and its producer and thus a certificate of the high and stable product quality. The label also informs the consumers that the production methods applied ensure food safety.

Procedure of the Discover Great Food Programme

The DGF label may be granted to agri-food product producers and processors, regardless of their size and form of ownership. One of the requirements for participation in the Programme is to conduct economic activity in the European Union. A producer interested in obtaining a DGF label for its product may apply to the Minister of Agriculture and Rural Development at any time for initiating the procedure resulting in awarding the DGF label. Any number of products may be included in an application. The DGF label is awarded only to products, which meet the criteria of the DGF Programme and obtain a positive recommendation of the Scientific Committee for the Quality of Food Products of the Discover Great Food Programme, appointed by the Minister of Agriculture and Rural Development. The Scientific Committee consists of experts in the fields of food, nutrition, medicine, plant breeding, animal breeding, law and economics.

The Discover Great Food label is awarded to the following groups of products:

1. meat and meat products;
2. milk and milk products;
3. fish, seafood and their products;
4. eggs and egg products;
5. honey;
6. edible fats;
7. cereal, leguminous, bulb and root plant products;
8. fruit, vegetables, mushrooms and their products;
9. confectionary and pastry products;
10. herbs and spices;
11. foodstuffs intended for particular nutritional uses;
12. mixed and processed products based on the abovementioned products;
13. waters and non-alcoholic beverages;
14. alcoholic beverages;
15. other.

In order to maintain a constant high quality of labelled agri-food products, the Minister of Agriculture and Rural Development awards the Discover Great Food label for 3 years.

The Discover Great Food Programme also involved the promotional activity of the Ministry of Agriculture and Rural Development aimed at popularising knowledge about the Programme, rules governing the participation in the Programme and the products with the DGF label. The promotional activities under the Programme also involve providing the customers with information about the conditions for acquiring raw materials, production technologies and systems of supervision over food quality and safety and the rules of appropriate product labelling.

As a part of promotion of the Discover Great Food programme, the Ministry of Agriculture and Rural Development actively participate in numerous exhibitions and fairs taking place all over the world. The Programme was presented at the largest exhibitions and fairs taking place in the Czech Republic, Ireland, Greece, Spain, Germany, China, Japan, USA, South Korea, Israel, United Kingdom, Canada, Indonesia, Slovakia, France, Hungary and the United Arab Emirates. The promotional activities of the DGF Programme include also the forms of promotion, which increase the label awareness and popularize the DGF labelled products, such as promotions in retail networks, advertisements in the press, radio and TV, as well as mass open air events.

The applications for including products in the Programme and the list of annexes required for evaluation are available at the website of the Ministry of Agriculture and Rural Development, under Discover Great Food. For more information, please contact:

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DISCOVER GREAT FOOD Programme
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REGIONAL AND TRADITIONAL PRODUCTS

The regions of Poland are a treasury of products whose history is interwoven with Polish tradition and specific character of their areas of origin. These products stand out on the market due to their unique, specific quality resulting from the place they originate from, non-industrial methods of crop cultivation and animal breeding, traditional production methods and observing the highest quality standards.

Production, protection and promotion of high quality food become increasingly important in the European Union Member States. One of the basic means of the EU quality policy implementation is labelling agri-food products with marks, confirming their high quality, origin, as well as tradi-

tional production method. The system of regional and traditional products protection is based on two Regulations providing rules for their registration and protection, namely, the Council Regulation No 510/2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs and the Council Regulation No 509/2006 on agricultural products and foodstuffs as traditional specialities guaranteed. The Regulations were transposed to 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.

By mid July 2010, 17 Polish products have been covered by this protection scheme in the European Union. They include mountain cheese related to 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 covers also mead such as ***półtorak, dwójniak, trójniak*** and ***czwórniak***, which have been produced in Poland for a thousand years.

Both Polish producers and local administration begin to see the advantages of registration of regional specialities. The products with registered names are characterised by unique, specific quality owing to their place of origin or the traditional method of production. The products are manufactured in strictly specified climate conditions, using production methods handed down for centuries from generation to generation, to which they owe their unique taste. They are often inseparably connected with the regional folk culture. Upon registration the unique character of the products is confirmed by the EU symbols, their names are protected and their producers may receive financial support.

Possibilities of promotion of traditional and regional products

The protection system offers great 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 to the European Commission for registration and the increasing popularity enjoyed by the national List of Traditional Products. One of the main purposes of this list is to promote regional specialities in Poland to subsequently promote them at the international level. The product may be included on the List of Traditional Products only if the established tradition of its production is at least 25 years long. Products applying for registration should also be an element of local community's identity and belong to the cultural heritage of the region they originate from. The indirect purpose of the list is also to prepare the producers to register the names of the products it contains at the EU level. There are already over 750 products registered in the List of Traditional Products and the Ministry of Agriculture and Rural Development still receives applications for registration.

The names of products are registered as Protected Designations of Origin, Protected Geographical Indications and Traditional Specialities Guaranteed.

Protected Designation of Origin – when the name is directly or indirectly related to the region, specific place or, in exceptional cases, country where the product is produced, the entire technological process takes place in the area referred to by the name of the product, and characteristics and quality of the product are explicitly 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 due to, or attributable to, its geographical origin. The quality of a product may also result from the geographical area (e.g. the climate, the flora, land formation), 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 is specific in itself or it expresses a specific nature of agricultural product or foodstuff, the product itself is specific, i.e. it has a characteristic or a set of characteristics that distinguish it from other products of the same category, and has a traditional character which may be reflected in using traditional raw materials, a traditional composition or production method.

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 culinary heritage contributes to the development of new, alternative income sources in rural areas. It is particularly important in less-favoured areas, which are becoming depopulated and sink into economic oblivion.

INTEGRATED AGRICULTURAL PRODUCTION

Integrated production (IP) is a farming system where the producer grows plants using balanced technical and biological methods of plant cultivation, protection and fertilization, placing a special emphasis on environmental protection and human health. Integrated production allows to obtain agricultural products of the highest biological and nutritional value, which are safe for human health.

In Poland, integrated production is regulated by the Act of 18 December 2003 on plant protection (Dz. U. of 2008 No 133, item 849, as amended) and 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 certification of IP belong to the tasks of the State 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 recognized as the national food quality system by the decision of the Minister of Agriculture and Rural Development.

Agricultural producers interested in obtaining an official IP certificate should notify his intention to start crop cultivation to the Voivodeship Inspector of Plant Health and Seed Inspection. Based on the first application, the producer receives an individual number and is entered into the register. The producer now has the obligation to conduct agricultural production using methods approved by the Main Inspector of Plant Health and Seed Inspection, available at the website of the Main Inspectorate at http://www.piorin.gov.pl/. All activities related to IP farming have to be documented in the ***Integrated Production Notebook***, the template of which is provided in the Ordinance on integrated production.

Before finishing the production, the producer must apply for a certificate to a local unit of the Inspection which is competent for the place of crop cultivation. The certificates are awarded when the inspections do not reveal any irregularities and the producers lodged a correct application for a certificate, completed an IP training, carried out the production according to specific methods approved by the Main Inspector and properly documented the activities related to integrated production in the Notebook on a regular basis.

The producers awarded with official certification have the right to use the certificate and to label their products with the protected integrated protection mark.

INTEGROWANA PRODUKCJA

The participation in the IP system allows producers to receive reimbursement of a part of costs they incur thanks to the financial support under the Rural Development Programme 2007-2013.

The producers awarded with integrated production certificates, benefitting from the measure ***Participation of farmers in food quality schemes***, may apply for reimbursement of costs, for 5 years, in the amount of up to PLN 2750 a year, incurred to obtain an integrated production certificate and the related certificates confirming that the acceptable levels of residues of plant

protection products, heavy metals, nitrates and other harmful elements and substances in plants and plant products have not been exceeded. The reimbursement may be granted also for costs of measures which were necessary directly due to integrated production methods and are related to sampling soil and leaves, performing analyses of nutrient content and determining the plants' needs in terms of fertilization. Furthermore, the producer may apply for refund of contributions paid to producer groups and the costs of purchase of publications on crop cultivation in line with integrated production principles and the costs of pheromone traps and glue traps.

The measure ***Information and promotion activities*** guarantees support for producer groups implementing projects related to information about and promotion of products covered by the food quality schemes. The support consists in reimbursement of 70% of eligible costs, which were actually incurred for approved promotion activities.

In 2010, the State Plant Health and Seed Inspection began its seventh year of supervising the Integrated Production system. The applications for entry into the IP system were lodged by 1 405 agricultural producers and concerned 1768 crops, which means that some producers declared that they cultivate more than one plant variety. Fruit and vegetable crops accounted for 85.58% and 10.75% of all crops notified to the system, respectively, with apples accounting for 60.86% of all notifications. The largest number of crops was registered in the Mazowieckie, Lubelskie and Łódzkie voivodeship, i.e. 35.7%, 17.6% and 11.6% of all notifications.

In the seventh year of the Inspection's supervision of Integrated Production, 1068 certificates were issued, including 747 for apple producers (69.9% of issued certificates). The year 2010 saw a 27.7% growth of the number of certificates issued, as compared to the previous year. The total number of certificates issued for fruit was 911 (85.3%) and for vegetables - 112 (10.5%).

PROTECTION OF PLANT GENETIC RESOURCES IN POLAND

The number of collections of cultivated plant genetic resources in the world exceeds 1 600. They include over 7.4 million genotypes. The resources are independent property of countries, according to international agreements. The rational access to and use of such a large group of items in line with the interest of the parties requires international cooperation. Poland stores one percent of the global plant genetic resources.

The accession of Poland to the Convention on Biological Diversity and the International Treaty on Plant Genetic Resources for Food and Agriculture confirms Poland's will and formalizes its obligation to implement the provisions of those two international agreements on the protection of genetic resources of cultivated plants with direct or potential value for cultivation, research and other purposes of importance for the national economy. Another international treaty that Poland plans to ratify is the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of

Benefits Arising from their Utilization (the so-called Nagoya Protocol - ABS). Its scope is much wider that the scope of the Treaty and includes all plant, animal and microbial genetic resources, their derivatives and the related traditional knowledge of local communities.

The protection programme for cultivated plant genetic resources in Poland is implemented under the auspices of the Minister of Agriculture and Rural Development by a number of cooperating institutions responsible for individual leading collections of cultivated plants. **The collections create the Polish gene bank, whose task is to preserve ex situ genetic resources of cultivated plants.** The collected materials are provided for utilisation in cultivation and for other practical and scientific purposes. The protection programme for cultivated plant genetic resources is coordinated by the National Centre for Plant Genetic Resources of the Plant Breeding and Acclimatization Institute (IHAR) in Radzików. The institutions cooperating with IHAR in the programme implementation include sectoral institutes, higher education institutions, botanical gardens and arboreta and breeding companies.

The tasks of the gene bank include:

- collecting genotypes of plants at risk of genetic erosion;
- evaluation of collected genotypes;
- long-term storage of collected materials in viable state and making them available to breeders, scientists and other interested parties;
- documentation of collections and dissemination of data.

Following the completion of research on individual items from the collection, the materials and the data are transferred to the central preservation facility. The long-term preservation facility of the IHAR's gene bank in Radzików contains approx. 75 000 samples of seeds, representing 219 botanical types and 245 species. *Table 33.*

Plant group	Number of samples	Percentage share
Cereals	28 762	36.8
Grasses	18 247	23.3
Vegetables	9 054	11.6
Fine-grained papilionaceous	7 002	8.9
Fruit trees	4 500	5.7
Oil and industrial plants	4 260	5.4
Medicinal and spice plants	1 510	2
Legumes	1 500	1.9
Potatoes	1 405	1.8
Fruit bushes	1 032	1.3
Ornamental	1 018	1.3
TOTAL	78 290	100

Table 33. Genetic resources covered by the programme, by individual collections.

A genetic material of some plant groups is also stored outside the long-term preservation facility of IHAR. Collections of orchard plants, hop, potato and garlic have the form of plantations, due to the vegetative method of their reproduction. At the IHAR Branch in Bonin, potato clones are also stored ***in vitro*** in an air-conditioned chamber, at the temperature of 8-10°C. The method bound to become more popular in future is deep freezing in liquid nitrogen. Cryopreservation techniques are very important for preserving isolated tissues of woody plants, e.g. techniques of cryopreservation of apple tree scions were developed. Such techniques are applied at the Polish Academy of Sciences Botanical Garden -

Center for Biological Diversity Conservation in Powsin. According to estimations, such conditions will allow to preserve seeds and tissues for several hundred years. The gene bank is used mainly by the Polish breeders who use the materials for hybridization in order to create new, improved varieties, resistant to diseases, pests or difficult weather conditions. Materials in the bank gene are also used by higher education institutions and other research and educational institutions. The collections from the gene bank help users carry out new tasks, such as breeding new varieties of crops adjusted to the changing environment, by means of providing access to a wide range of crop genetic resources. Breeders are interested in having an adequate number of genotypes with characteristics needed for ongoing breeding programmes. Each new task requires using the materials collected at the gene bank.

Active protection of plant genetic resources is the basis for food security of the country and diversity of diets of the population. It also contributes to sustainable development of agricultural areas and allows to prevent the consequences of climate change at the regional and national level.

The importance of genetic resources has increased recently, as a result of the development of breeding techniques enabling an efficient utilisation and transfer of genes between species, which opens new prospects in improving the crop varieties. Plant genetic resources currently have a market value. Therefore, all countries undertake measures aimed at protecting and using the existing biological diversity. The preservation of the genetic base for plant, animal and fish production is one of the objectives of the current Strategy for Sustainable Development of Rural Areas, Agriculture and Fisheries.

Biofuels

The main biocomponents used in liquid fuels and liquid biofuels include bioethanol and rapeseed oil esters. Increasing quantities of biocomponents produced from national agricultural raw materials are currently used to accomplish the National Indicative Target. The market develops gradually, but its growth rate fails to meet the expectations of agricultural producers and biocomponent manufacturers.

The development of this market is one of the key elements of the European Union's climate policy. Pursuant 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 and thus also Poland must implement regulations by 2020 to ensure that 10% of energy used in transport will come from renewable sources. The Minister of Economy is responsible for implementing the policy, but the achievement of this objective requires close cooperation also with the agricultural sector, since it is agriculture that provides raw materials for production of biocomponents and biofuels.

The market of biofuels and biocomponents in Poland is regulated by the Act of 25 August 2006 ***on biocomponents and liquid biofuels***. The Act served as the basis for drafting the ***Multiannual programme for promotion of biofuels or other renewable fuels for 2008-1014***, adopted by the Council of Ministers on 24 July 2007. The ***Programme*** provides for a number of mechanisms supporting the development of the biofuel market.

Based of periodical analyses, the Ministry of Agriculture is critical of the development of the biofuel and biocomponent market so far. The opinion is due to the lack of accomplishment of economic and social objectives. Therefore, on the initiative of the Minister of Agriculture and Rural Development and based on available materials presenting the situation on the market, the Council of Ministers performed a comprehensive evaluation of the mechanisms of the ***Multiannual programme for promotion of biofuels or other renewable fuels for 2008-1014***. The effect of the evaluation is the decision of the Council of Ministers imposing an obligation on competent ministers to perform analyses and reviews of the binding legislation. The changes will be implemented by amending the relevant legal acts regulating or influencing the market of liquid biofuels and biocomponents. *Table 34.*

Demand for	2008	2010	2020
Bioethanol (thousands of m^3)	288.77	463.37	805.75
Cereals (80% share) in thousands of tonnes	688.24	1 112.09	1 933.80
Esters (for diesel, total consumption) in thousands of m^3	356.16	648.46	1 127.76
Rapeseed (75 % of demand) in thousands of tonnes	747.94	1 361.77	2 368.30

Table 34. Projected demand for agricultural raw materials for production of biocomponents; *Source: Calculations and data of the Ministry of Agriculture and Rural Development.*

The above table presents the current and projected demand for individual raw materials for biocomponent production and for biocomponents. According to the estimations of the Ministry of Agriculture and Rural Development, the accomplishment of targets set by the European Union for 2020 will require almost 2 million tonnes of cereal (900 000 ha, with assumed yield of 2.66 t/ha) and approx. 2.4 million tonnes of rapeseed (800 000 ha, with assumed yield of 3.08 t/ha).

Agricultural biogas

Agricultural production may be an important source of raw materials for renewable energy generation. Taking into account the main goal of agriculture, i.e. meeting the demand for food, the Minister of Agriculture and Rural Development attaches particular importance to the use of the following materials for energy purposes:

- co-products and residues from agriculture;
- co-products and residues from the agri-food industry;
- liquid and solid animal excrements;
- energy crops.

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

The production of energy from agricultural biogas may offer numerous benefits, i.a. for rural areas, including:

- improvement of energy security;
- supply of a major part of gas and electrical energy from numerous local biogas plants;
- meeting of international obligations, set forth in adopted environmental and climate targets, using the locally available raw materials;
- generation of substantial quantities of energy from raw materials that are not competitive for the food market, such as agricultural co-products, liquid and solid animal excrements and residues from the agri-food industry which do not require thermal treatment or disposal;
- increase in agricultural incomes thanks to using products, which have not been regarded as commodities so far, and selling the surplus energy;
- obtaining environment-friendly digestate that can be used in agriculture,
- using organic residues and waste, which emit greenhouse gases to the environment as a result of uncontrolled decomposition, for energy purposes.

According to the research of the Institute of Technology and Life Sciences, the actual available potential of raw materials for biogas production, contained in agricultural by-products and residues from the agri-food industry, amounts annually to:

- about 1 540 million m^3 from agricultural by-products;
- about 100 million m^3 from agri-food processing by-products.

Permanent grassland can also be a significant source of raw materials for biogas production. The Institute of Technology and Life Sciences 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 sward of permanent grassland and the possibilities of using them to produce biogas are therefore significant (about 1.1–1.7 billion m^3/year in total).

Animal excrements are also an important raw material for biogas production. It is estimated that 35-38 million m^3 of slurry is produced annually in Polish agricultural holdings, at least 20% of which could be used for biogas production. Manure is also a good substrate.

Energy potential of the domestic agriculture is therefore quite substantial and ultimately, when complemented by 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.

Seeing the potential of the national agriculture, the Minister of Agriculture and Rural Development prepared the ***Assumptions of the programme for development of agricultural biogas plants in Poland***, which served as the basis for drawing up the ***Directions of development of agricultural biogas plants in Poland for 2010-2020*** by the Ministry of Economy. The document was adopted by the Council of Ministers on 13 July 2010. The implementation of the ***Directions*** is expected to result in an increased interest in investment in agricultural biogas plants.

The mechanisms provided for in the document include the information and promotion measures and the elimination of legislative barriers to facilitate investment process. The work on amending the Energy Law had been initiated and completed before the government adopted the ***Directions***. The amendments introduced support for agricultural biogas in the form of certificate of origin for agricultural biogas, purified to achieve the natural gas quality and introduced to the distribution network, specified the conditions of connecting agricultural biogas plants to the energy grid and released the agricultural biogas producers from the obligation to have a license for generating electrical energy from biogas, introducing instead the obligation of entry into the register of agricultural biogas producers.

The work on amending legal acts, for which the Ministry of Agriculture and Rural Development is responsible and which will facilitate the agricultural use of digestate, is underway.

The Minister of Agriculture and Rural Development attaches particular importance to the development of agricultural biogas plants as dispersed, small sources of renewable energy generation. Therefore, in his activities he

stresses the need to offer particular support to small, agricultural installations with the capacity below 500 kW. The size of installation determines not only its costs, but also demand for raw materials. *Table 35.*

The above table presents information on the demand for silage and area necessary for its production, as well as the 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) with110 kW electric power requires approx. 31 ha of utilised agricultural area only for the production of silage, apart from the necessity to meet feed needs of the animals (176 livestock units) producing excrements that can be used in the biogas plant. Only such an amount of substrate would ensure production adequate to the power of the plant, i.e. 365 000 m^3 of agricultural biogas. In the information provided to potential investors, the Ministry 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; the solutions applied by developed countries with regard to amount and technology of obtaining agricultural biogas and the increase in competitiveness of agricultural holdings and their incomes as a result of savings on costs of substrate disposal or storage, obtaining disposable certificates of origin or the sale of surplus energy to the grid. The ministry also informs the interested parties that each investment decision should be preceded by a detailed analysis of availability of raw materials ensuring the maintenance of ecological and economic effect throughout the entire biogas production cycle, i.a. by means of estimating the distance for which the substrate and digestate will be transported.

Power installed	Demand for biogas [m^3]	Silage makes up 100% of the substrate		Silage makes up 70% of the substrate, the remaining 30% is slurry			
		Demand for silage		Demand for silage		Demand for slurry	
		tonnes	ha	tonnes	ha	tonnes	LU (livestock units)
1 MWe	3 650 000	21 000	440	14 700	308	40 556	1 763
500 kWe	1 825 000	10 500	220	7 350	154	20 278	882
300 kWe	1 095 000	6 300	132	4 410	92	12 167	529
200 kWe	730 000	4 200	88	2 940	62	8 111	353
100 kWe	365 000	2 100	44	1 470	30	4 056	176
50 kWe	182 500	1 050	22	735	15	2 028	88
30 kWe	110 606	636	13	445	9	1 229	53
20 kWe	73 000	420	8	294	6	811	35
10 kWe	36 500	210	4	147	3	406	18
5 kWe	18 250	105	2	74	1	203	9

Table 35. Demand for substrate for an 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 the MARD based on operating data (L.Ciurzyński) and of the Institute for Building, Mechanization and Electrification of Agriculture.*

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, out of which 0.09 ha per person in the cities and 1.97 ha in the countryside.

There are 53 000 rural localities, with average population of 278 each. The most populated rural localities are encountered in Małopolskie (844 people per village), Podkarpackie (746 people) and Śląskie (767 people) voivodeship, while the voivodeships with the least populated localities include 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 population obtains 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, account for a significant share of the rural 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 moves to rural areas. The role of the Internet has increased as it allows to work at home.

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

Rural population

Since 2001, the population in rural areas has been increasing and by the end of 2010 has reached the level of 14.9 million people, i.e. 0.3 million more than in 2000 and 0.2 million more than in 2005, as well as 46 500 more than in 2009. Women represented 50.3% of the rural population; while in towns-cities the percentage of women was higher and amounted to 52.6%.

In Poland, the population density for 1 km^2 is 122 people: 109 in towns/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 years.

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

According to the forecast of the Central Statistical Office concerning the population in rural areas, it will slightly decrease by 2035, as a result of the

falling number of births accompanied by a positive balance of internal migration. Migration is often caused by a better use of work in agriculture and decreases the agricultural overpopulation. Migration, however, poses the risks related to the selective nature of this mechanism. Migration decisions are usually taken by young, well-educated and resourceful people. It can be expected, however, that some of them would come back with higher qualifications, experience and financial resources, which may contribute to an improvement in living conditions in rural areas or an increase in investments in agricultural holdings.

Rural women

The role of women in agriculture stems from specific functions performed by farmer families, which are a community in terms of both consumption and production, and a special link between households and agricultural workplaces. The specific characteristic of women in agriculture is the diversity of their family and professional roles. They often combine work in an agricultural holding with an additional work or non-agricultural activity, as well as work for their community.

If women are to remain in agriculture, an appropriate social security system for farmers must be in place. The social security scheme for farmers in Poland treats the spouse of a farmer as a farmer, unless the spouse does not work in the agricultural holding or household directly related to the agricultural holding. Such an approach allows women, who work only in the household directly related to an agricultural holding, to obtain appropriate social security benefits, if they become unable to work due to illness or old age.

Women have been increasingly active in public activity since the 1990s. The percentage of women among rural gmina councillors increased from 9.2% in 1990 to 20.8% in 2006 (in urban gminas it grew from 16.5% to 23.3% within the same period) and the share of women in the total number of mayors of the municipalities in 2006 amounted to 8.2%. Women are increasingly active in village administrations, where they account for approx. 30% of the heads of village administration.

Rural women in Poland actively participate in transforming their environment. Their social and citizen activity is greatly diversified. It includes both formal membership in various organisations and informal activity. The Country Women's Circles remain the main women's organisation in rural areas, but an increasing number of women act for the benefit of local communities in various associations, foundations and agricultural self-government.

Thanks to the variety of roles that rural women perform, they are particularly well-prepared to make a significant contribution to progress and innovation and to an increase in the quality of life in rural areas.

Women in rural areas have higher educational aspirations, commit themselves to acting for local community and, when faced with difficulties

on the local labour market, they more often than men seek employment outside agriculture or set up their own companies. Therefore, rural women are better prepared to act as a catalyst for social, cultural and economic transformations in rural areas. Women conduct economic activity in various areas, including handicraft, craftwork, agri-tourism, processing and sale of agricultural products. Such a nature of work is particularly attractive for women, since it allows to combine work with household chores and taking care of children. Combing work in agriculture and non-agricultural activity allows to conduct less profitable farms and prevents the depopulation of some regions and thus their economic and social degradation.

Labour force participation and human capital in rural areas

The labour force participation of the population aged 15 years and more and the employment ratio in rural areas in higher than in towns/cities. The basic criterion applied in the "Labour Force Survey" (BAEL) conducted by the Central Statistical Office include an individual in the labour force was employment for a specific period during the analysed period, taking into account sickness, leaves, breaks in economic activity or periods of unemployment or active job-seeking. *Table 37.*

Higher labour force participation rate and employment rate in rural areas results from the fact that the respondents in rural areas declare that they work in agricultural holdings, even if only for one hour in a reference week, thanks to which they meet the requirement for being classified among labour force and the working population.

According to the BAEL survey, unemployment rate in rural areas is lower than in urban areas, but exhibits a similar upward trend. *Table 38.*

Unemployment is increasing in all age groups and categories. In 2009, the unemployment among the labour force increased from 7.8% in Q1 to 8.2% in Q4 in rural areas (and from 8.5% to 8.6% in urban areas). The unemployment rate according to BAEL amounted to 10.6% in Q1 2010 and increased by 2.1% within the quarter and by 2.3% within a year. The rate was higher in urban areas (10.7%) than in rural areas (10.4%). The unemployment rate among women (10.7%) still exceeded the unemployment rate among men (10.6%), both in urban and in rural areas.

Specification	1995	2000	2005	2006	2008 Q4	2009 Q4
Total labour force participation ratio	**58.4**	**56.4**	**54.9**	**54.0**	**54.7**	**55.1**
Urban areas	57.2	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 37. Labour force participation of the population aged 15 years and more (%); *Source: Statistical Bulletin 2010, Central Statistical Office.*

Specification	2002	2005	2006	2008 Q4	2009 Q4
Unemployment rate	19.7	17.7	13.8	6.7	8.5
- urban areas	21.3	18.7	14.4	6.9	8.6
- rural areas	17.2	16.1	13.0	6.4	8.2

Table 38. Unemployment rate according to BAEL (% of active population); *Source: Statistical Bulletin 2010, Central Statistical Office.*

Agriculture in the EU Member States is diversified in terms of qualifications and age structure of the employed. The analysis of the support for measures financed by the EAFRD reveals that the funds for human capital in agriculture are relatively low. In 2007-2013, the average support for human capital measured in all the EU Member States is slightly less than 7% and direct support is even smaller – 2%. Poland is definitely the country with the highest support for human capital, as 17% of the funds are allocated for this very purpose. The new Member States allocate the same amount of funds as the EU15 for human capital. The average intensity of aid for human capital is approx. 6% in both cases. *Table 39.*

Among new EU Member States, Lithuania and Cyprus spend a relatively large share of funds from EAFRD on human capital (12 and 9% respectively). In Lithuania, this results from problems related to the ageing of farmers' population and unfavourable area structure, while in Cyprus the funds are allocated for early retirement and support for young farmers (as in Poland).

Rural infrastructure

Rural areas are characterised by lower availability of basic technical infrastructure facilities when compared to urban areas, but, at the same time, funds allocated for this purpose increase rapidly.

The adequate technical infrastructure in rural areas is of fundamental importance, and at the same time, it is difficult to ensure due to its specific character, since rural infrastructure, as opposed to urban infrastructure, is:

- poorly concentrated;
- not intensive;
- often lacking spatial continuity;
- capital-intensive (due to long distances);
- poorly integrated.

Appropriate water supply and sewage infrastructure in rural areas is of utmost importance, and at the same time, difficult to ensure due to its specific character, since rural infrastructure, as opposed to urban infrastructure, is poorly concentrated, not intensive, often lacking spatial continuity, capital-intensive (due to long distances) and poorly integrated.

At the end of 2010, the water supply network in Poland was 222 323.78 km long, of which 6 079.79 km were built in 2010. The sewage network was 60 445.57 km long of which 7 686.94 km were built in 2010. The water supply network is the longest in the Mazowieckie Voivodeship (32 672.48 km), and the shortest is in the

Specification	Agricultural qualifications in %	Direct aid intensity rate	Human capital aid intensity rate
EU-15	21.8	2.0	6.5
EU-27	20.0	2.1	6.0
of which Poland	38.5	2.2	17.0

Table 39. Human capital in agriculture and aid intensity rate.
* The index covers managers of agricultural holdings 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 2005-2009], Institute of Agricultural and Food Economics - National Research Institute.

Lubuskie Voivodeship (4 778.44 km). The Podkarpackie Voivodeship has the longest sewage network, i.e. 10 249.71 km, while in the Podlaskie Voivodeship this network is only 1 195.83 km long.

Taking account of the varying size of voivodeships in Poland and regional environmental determinants, the length of water supply and sewage network does not allow to clearly state to what extent the existing infrastructure meets the needs of the rural population. The indexes describing the coverage of rural areas with water supply and sewage network are definitely a better way to present the current situation.

At the end of 2010, the water supply network coverage, calculated as a ratio of the number of residential buildings connected to the water supply system to the total number of residential buildings (in%), was 79.7%, while the sewage system coverage, expressed as a ratio of the number of residential buildings connected to the sewage system to the total number of residential buildings amounted to 25.29%.

The *table 40* presents the coverage of water supply and sewage system by voivodeship.

The above data show that only in four voivodeships (Kujawsko-Pomorskie, Łódzkie, Opolskie, Wielkopolskie) more than 90% of residential buildings are connected to the water supply network, while the figure for the Małopolskie Voivodeship only slightly exceeds 60%. The situation looks definitely worse in the case of access to sewage infrastructure. The highest coverage rate of the sewage system is only 43.66% (Podkarpackie Voivodeship), while in five voivodeships it does not exceed 20%.

Voivodeship	Total number of residential buildings	Water supply network		Sewage system	
		Number of residential buildings connected to water supply network	Water supply network coverage rate	Number of residential buildings connected to sewage system	Sewage system coverage rate
	units	units	%	units	%
POLAND	3 446.794	2 747 141	79.70	871 737	25.29
Dolnośląskie	186 837	157 313	84.20	54 986	29.43
kujawsko-pomorskie	178 570	161 718	90.56	47 681	26.70
Lubelskie	67 578	51 757	76.59	12 574	18.61
Lubuskie	78 325	69 891	89.23	18 364	23.45
łódzkie	274 189	248 853	90.76	39 278	14.33
Małopolskie	440 692	270 239	61.32	102 818	23.33
Mazowieckie	538 194	420 296	78.09	95 341	17.71
Opolskie	122 605	115 424	94.14	37 674	30.73
Podkarpackie	312 228	206 958	66.28	136 333	43.66
Podlaskie	141 794	109 242	77.04	21 252	14.99
Pomorskie	160 567	132 836	82.73	65 058	40.52
Śląskie	276 705	226 037	81.69	70 576	25.51
Świętokrzyskie	203 830	164 444	80.68	33 151	16.26
warmińsko-mazurskie	113 842	92 897	81.60	28 318	24.87
Wielkopolskie	337 557	308 175	91.30	103 477	30.65
zachodniopomorskie	13 281	11 061	83.28	4 856	36.56

Table 40. The coverage of rural areas with water supply network and sewage system, by voivodeship, at the end of 2010, according to a report by RRW-2 on investment in water supply network and sanitation of rural areas in 2010.

The poor access to public utilities in rural areas is determined by a number of factors. Each region of Poland should be treated individually, adjusting the projects concerning water supply system and sewage system to conditions in individual regions. Network infrastructure cannot be built everywhere and often it is not the best solutions for both technological and economic reasons.

The above data reveal a marked disproportion between the availability of the collective water supply network and the sewage system. One of the reasons for such situation is the fact that the development of the water supply network is a higher priority among the rural population. Moreover, investments in the sewage system and wastewater treatment plants require more funds and are perceived by a part of local community as additional financial burden and not an element improving the living standard and limiting the degradation of the environment.

The collective sewage system is supplemented by individual onsite wastewater treatment plants. In 2010, 15 687 of such plants were put into operation.

The expenditure for investment in water supply network and sewage system in rural areas amounted to approx. PLN 4 754 million. The majority of funds (PLN 1 998 024 100) came from the European Union funds, followed by local governments (PLN 1 689 440 400), environmental protection funds (PLN 624 626 600), other sources (PLN 256 961 100), inhabitants (PLN 123 799 000) and state budget (PLN 61 243 200). In addition, the projects were also financed from funds coming from water supply and sewage companies, associations and companies.

The needs for development of infrastructure in rural areas are still significant. The development of IT infrastructure requires particular support. *Table 41.*

The progress in the improvement of Internet access which has been made since 2005 is significant; however, it is still insufficient and requires intensified activity and involvement of local governments.

Development of economic activity and agri-tourism in rural areas

The number of economic operators in rural areas has increased significantly in recent years. According to the data of the Central Statistical Office for 2009, the REGOM register included 3.7 million legal persons, organisational units without legal personality and natural persons conducting economic activity, out of which 25% (i.e. 935 300) registered their economic activity in rural areas. As compared to 2001, the number of national economy entities registered in rural areas increased by over 230 000 (i.e.

Specification	Urban areas		Rural areas	
	2005	2007	2005	2007
Internet users	49.6	59.7	29.5	39.3
- within the last 3 months	42.0	51.7	23.3	31.2
Persons never using the Internet	50.4	40.3	70.5	60.7

Table 41. Internet users by place of residence, 2005-2007 (%); *Source: Institute of Agricultural and Food Economics – National Research Institute.*

by 24.5%). At the same time, the entrepreneurship index, calculated as the number of entities per 1000 inhabitants, is still almost twice lower than in urban areas (63 in rural areas, 121 in urban areas).

The spatial analysis of national economy entities conducting economic activity in rural areas reveals significant disproportions between the regions. The majority of entities entered into the REGON register is located in the Mazowieckie (13.3%), Małopolskie and Wielkopolskie (11.5% each) voivodeships, while their number is the smallest in the Podlaskie (2.4%), Lubuskie (2.6%) and Warmińsko-Mazurskie (3.2%) voivodeships.

In terms of type of conducted activity in rural areas in 2009, the largest share belonged to the entities involved in trade, repairs of vehicles, transport and storage, accommodation and catering, information and communication (40%), as well as industry and construction (28%). *Fig. 13.*

The structure of national economy entities by legal form in rural areas was dominated by natural persons conducting economic activity (81.6%), followed by partnerships (8.7%) and associations and social organisations (3.5%).

Over 96% of all national economy entities conducting economic activity in rural areas in 2009 belonged to the private sector.

The increasing significance of non-agricultural activity in rural areas is further demonstrated by the fact that 97 800 new national economy entities were entered in the REGON register in 2009, which constituted 28% of all newly registered entities in Poland. As compared to the previous year, there was an increase by 6 000 of newly registered economic operators in rural areas.

The development of economic activity in rural areas is the subject of numerous, both national and EU, strategic and programming documents. The National Development Strategy 2007 – 2015 states that "Rural areas should become a competitive place for living and conducting economic activity for the inhabitants of Poland." The Strategy emphasized that the state policy in respect of rural areas must take into account both agricultural and non-agricultural aspects of rural areas.

The state rural development policy covers a number of measures aimed at developing entrepreneurship, among others in the area of upgrading qualifications, facilitating access to the labour market and providing financial support. The Rural Development Programme 2007-2013 offers support for entrepreneurship and economic competitiveness under the fol-

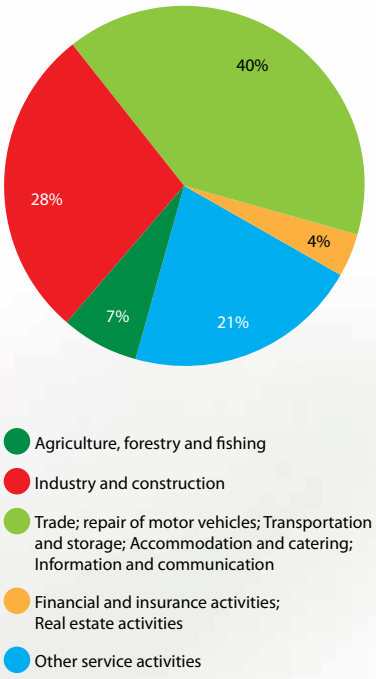

Fig. 13. The structure of economic entities registered Company by type of activity in 2009; *Source: Central Statistical Office, Statistical Studies and Analyses, Rural Areas in Poland, Warsaw 2011.*

lowing measures: Increasing the added value of basic agricultural and forestry production (Measure 123), Information and promotion activities (Measure 133), Agricultural producer groups (Measure 142), Differentiating towards non-agricultural activities (Measure 311) and Creation and development of micro-enterprises (Measure 312). The aggregate value of funds allocated for the support of entrepreneurship under RDP 2007-2013 exceeds EUR 10 billion.

The recent 10-20 years saw a dynamic development of rural tourism, including also agri-tourism, as a form of active leisure in rural areas, regarded to be an important factor of multifunctional transformations in rural areas.

The offer of agri-tourism products often includes various additional services, recreation and cultural activities, such as horse riding, hippotherapy, sleigh ride, hikes and cycling trips, angling, mushroom and berry picking, lease of boats and other equipment, sightseeing tours to local attractions, as well as participation in various local events, ceremonies, feasts and folk festivals.

According to the public statistics, in 2010 the agri-tourism accommodation offer in the entire Poland consisted of 7 600 facilities with 81 800 places of accommodation (date concern places which gminas enter on the list of so-called other facilities where hotel services are provided). *Table 42.*

The statistical data reveal that accommodation available all year round prevails, as it accounts for 75% of all resources. One facility consisted of 10 beds and 5 rooms on average. The agri-tourism base is the largest in Małopolskie and Podkarpackie voivodeships, followed by Pomorskie, Warmińsko-Mazurskie and Dolnośląskie voivodeships. Polish agri-tourism farms offer mainly (in 70-80%) accommodation in guest rooms, but also in separate flats and houses, as well as campsites, as opposed to the offer of Western countries where holiday apartments and houses prevail. Measures for tourism and rural development, undertaken by numerous institutions, play an important role for the development of rural tourism, including agri-tourism. The most important institution in this sector is the Polish Federation of Rural Tourism "Gospodarstwa Gościnne" (Hospitable Farms), a non-profit organisation founded in 1996 which consists of 45 local and regional associations. The Federation is the owner of the system for categorization of the Rural Accommodation Facilities. Other institutions supporting the rural tourism development include: Agricultural Advisory Centre, Voivodeship Agricultural Advisory Centres, associations of agri-tourism farm owners, including the Suwałki Chamber of Agriculture and Tourism (founded in 1991), as well as the Local

Years	Agri-tourism accommodation	
	Facilities	Accommodation places in thousand
2000	5 790	51.6
2002	6 060	53.2
2005	6 550	64.1
2006	7 450	72.2
2007	8 790	87.1
2009*	5 473	57.1
2010**	7 692	82.7

Table 42. Agri-tourism base in Poland, 2000-2010; *Source: Rural tourism in 2010 and assumptions for its development, Institute of Tourism, Warsaw 2010; Tourism in 2009, Central Statistical Office 2010.*
*Since 2009, city/town and gmina offices have an obligation to provide information about accommodation in an electronic form via an application called the Register of Tourist Facilities. However, part of gminas, particularly those of typical tourist nature where several hundred such facilities are located, has not finished the recording of data in paper form, which is why the presented figures may be underestimated.
** Data published by the Central Statistical Office, as of 31 October 2010.

and Regional Tourism Organisations, Local Action Groups (LAG) and Regional Secretariats of the National Rural Network. Agri-tourism sector organises the AGROTRAVEL fair which takes place in Kielce.

Rural tourism, including agri-tourism, has excellent development prospects in Poland. Poland is the only country in Central and Eastern Europe where agriculture is dominated by individual farms (small and medium-sized) and abundant in material cultural resources, authentic folklore, customs and traditions handed over from generation to generation. Rural tourism constantly expands its offer, which is adjusted to the needs of various 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.

Discussion on the Common Agricultural Policy after 2013

On 18 November 2010, the European Commission adopted the ***Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future*** (COM(2010)672). The publication of the document constitutes the first step in the process of interinstitutional consultation on the reform of the Common Agricultural Policy which will serve the Commission as the basis for preparing relevant legislative proposals. Based on the results of discussions on the CAP after 2013 on the EU forum (Council, European Parliament, European Economic and Social Committee, Committee of the Regions and extensive public debate carried out by the Commission in the first half of 2010), the Communication sets forth the challenges faced by the reform with regard to food security, the environment, climate change and territorial balance. The aforementioned challenges are to be addressed by relevant objectives and instruments of the reformed CAP.

The Communication also outlines the possible options of CAP changes. All the options under consideration assume a review of current CAP instruments.

The Commission clearly declares that CAP is to remain a strong EU policy based on two pillars which will face up to the challenges of the EU agriculture and rural areas and which will contribute to the implementation of ***Europe 2020 strategy*** in the area of smart, sustainable and inclusive growth.

The reply of Poland to the aforementioned Communication is the Position of the Government of the Republic of Poland, adopted by the Committee for European Affairs on 4 February 2011. The Position calls for maintaining at least the current CAP budget, simplification of CAP, changing the criteria of allocation of funds for direct payments between Member States (abandoning the current criteria, coupled with historic production), possibility to continue the use of the single area payment scheme and maintaining the current rules of allocation with regard to the second pillar of CAP.

Support for agriculture and fisheries

Direct payments

Poland, as the majority of new EU Member States, applies the Single Area Payment Scheme (SAPS), as well as the Complementary National Direct Payments (CNDP) amounting to 30% of payments in the EU-15 countries as of 30 April 2004, which have the form of complementary payments, decoupled payment for hop, coupled and decoupled payments in the potato starch sector, decoupled payment for tobacco and payment for animals.

Furthermore, Polish farmers can receive other payments, i.e. payment for sugar, payment for tomatoes, payment for soft fruit, and from 2010 also specific support in the form of payments for cattle, sheep and a specific payment for leguminous vegetables and fine-grained papilionaceous plants.

The level of payments increases each year, in line with the negotiated timetable of reaching the level of payments applied in the EU-15 as of 30 April 2004 (phasing-in principle).Therefore, payments increase each year until they reach 100% (in 2013). The maximum level of support from the national and EU funds in individual years is presented in the following figure. *Fig. 14.*

Complementary payments from the national budget are at the maximum level allowed by the EU law each year. The approach continued in 2010, when direct payments amounted to 100% of support obtained by farmers in the EU-15 (70% from the EU + 30% complementary national payments). Such an approach is to be maintained also in 2011+2013, which means that also in that period Polish farmers will receive 100% of support obtained by farmers in the EU-15.

Since the accession to the European Union, Polish farmers have received over **PLN 64 billion**, both in the form of payments financed by the EU and complementary national payments, out of which **over PLN 12.5 billion** in 2010. *Fig. 15.*

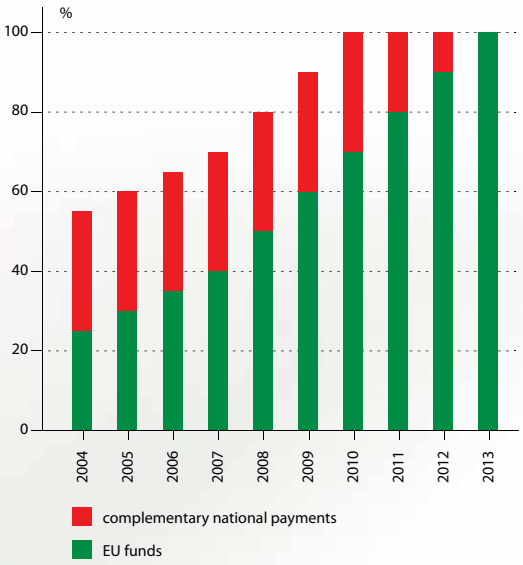

Fig. 14. The overall level of direct support in the years 2004-2013

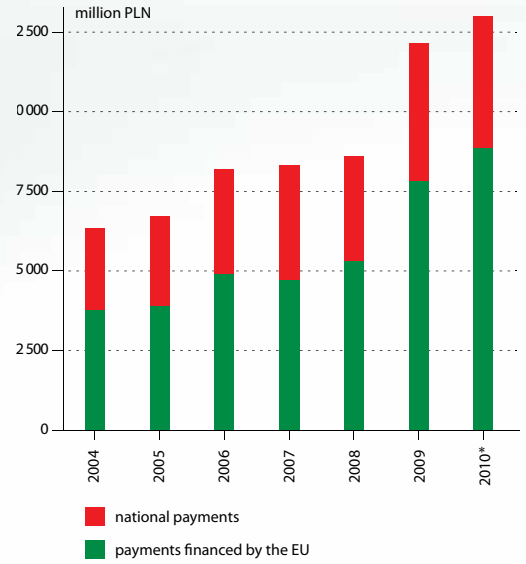

Fig. 15. The information about the amount of payments made to farmers as direct support between 2004 and 2010 is presented on the following figure.
** Payments made by the ARMA as of 1 July 2011.*

It should be emphasized that since direct payments are financed mainly by the European Union, they are originally set in EUR, i.e. the common currency. Then they are converted into PLN using the exchange rates published in the Official Journal of the European Union. The exchange rate applied is the last exchange rate determined by the European Central Bank before 1 October of the year for which the support is granted. Rates of individual types of payments are presented in the table below. *Table 43.*

SUPPORT FOR RURAL AREAS

Rural Development Plan 2004-2006 (RDP)

The Rural Development Plan 2004-2006 addressed social, economic and environmental aspects of rural development and complemented the measures undertaken under the cohesion policy and Common Agricultural Policy, implementing the following strategic objectives:

1. Improvement of the agri-food sector competitiveness (measures: Early retirement, Support for semi-subsistence farm and Agricultural producer groups).

2. Sustainable development of rural areas (measures: Support for farming in less-favoured areas (LFAs), Supporting agri-environmental actions and

Type of payment	Unit	2004	2005	2006	2007	2008	2009	2010
Single Area Payment	PLN/ha	210.53	225	276.28	301.54	339.31	506.98	562.09
Complementary payment – sector I	PLN/ha	292.78	282.35	313.45	294.91	269.32	356.47	327.28
Payments for hop	coupled PLN/ha	1 013.81	870.02	962.75	452.76	407.60	507.54	-
	decoupled PLN/ha	-	-	-	526.01	591.50	861.32	1 420.07
Payment for animals	PLN/ha	-	-	-	438.76	379.55	502.62	439.03
Payment for sugar	PLN/t	-	-	33.26	37.15	39.45	53.47	50.42
Payment for soft fruit	PLN/ha	-	-	-	-	1 358.68	1 691.80	1 593.87
Payment for tomatoes	PLN/t	-	-	-	-	133.65	166.82	157.16
Payment for energy crops	PLN/ha	-	217.32[1)]	276.28[1)]	169.79[2)]	152.85	190.33	-
Specific area payment	PLN/ha	-	-	-	-	-	-	207.28
Payment for cattle	PLN/unit	-	-	-	-	-	-	346.43
Payment for sheep	PLN/unit	-	-	-	-	-	-	105.91

Table 43. Direct payments paid out by the Agency for Restructuring and Modernization of Agriculture in 2004-2010
[1)] *In the years 2005 - 2006, payment for energy crops was made from national funds (willow and multiflora rose).*
[2)] *Since the reference area was exceeded in 2007, the reduction ratio of 0.7 was applied.*

increasing animal welfare, Afforestation of agricultural land and Adjusting agricultural holdings to the EU standards).

Furthermore, the RDP provides for funds (over 20% of the whole budget) for complementing direct payments, implementation of projects under the pre-accession SAPARD programme and technical assistance.

The total RDP budget amounted to EUR 3 592.4 million (including EUR 2 866 million from the Guarantee Section of the European Agricultural Guidance and Guarantee Fund) and has been used in 99.98%. *Table 44.*

SOP Restructuring and Modernisation of the Food Sector and Rural Development, 2004-2006

The Sectoral Operational Programme ***"Restructuring and modernization of food sector and rural development, 2004-2006"*** was a document specifying the scope and form of support for rural areas in Poland during the 2004-2006 programming period, implementing the objectives of EU cohesion policy.

The programme was one of the elements of implementing the social and economic development strategy specified in the National Development Plan for 2004-2006 (NDP).

The Sectoral Operational Programme "Restructuring and Modernization of Food Sector and Rural Development, 2004-2006" was financed from the EU budget (Guidance Section of the European Agricultural Guidance and Guarantee Fund - EAGGF), the national public funds (state budget, local government funds) and own funds of beneficiaries.

Between 2004 and 2006, Polish rural areas received support amounting to EUR 1 787 812 868 under the Programme, of which EUR 1 192 689 238 from the European Union funds and EUR 595 123 630 from the national budget.

Applications under the Programme were submitted from the second half of 2004 to the second quarter of 2007 (except for technical assistance and measures implemented by voivodeship governments). Since the Programme was launched, 80 709 applications for assistance were submitted for the amount of PLN 11.6 billion, which constitutes 176.12% of the financial limit for the years 2004-2006. 50 305 contracts were signed for approx. PLN 6.8 billion, i.e. 99.87% of the limit. *Table 45.*

Specification	Number of applications submitted	Number of decisions granting aid	Amount of payment made in PLN million
Early retirement	58 341	54 014	2 083.7
Support for semi-subsistence farms	172 728	157 656	1 316.6
Support for farming in less-favoured areas (LFAs)	2 052 698	2 007 334	3 708.3
Support for agri-environmental actions	75 500	70 600	814.9
Afforestation of agricultural land	10513	9 006	384.5
Adjusting agricultural holdings to the EU standards	72 591	71 385	2415.2
Agricultural producer 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	1 218	467.7
Total	6 694 199	6 579 753	14 190.3

Table 44. Implementation of the Rural Development Plan as of 31 December 2008.

Specification	Limit of funds for 2004-2006 PLN million	Applications submitted		Agreements concluded		Payments made	
		Number	Amount in PLN million	Number	Amount in PLN million	Amount in PLN million	% of limit used
Investments in agricultural holdings	2 183.3	42 582	4 573.4	24 230	2 490.9	2 418.5	110.77
Setting-up of young farmers	709.9	18 858	942.9	14 151	707.6	707.6	99.67
Trainings	75.2	660	309.6	182	78.2	73.5	97.77
Agriculture advisory and extension service support	164.5	56	214.7	33	167.8	161.8	98.30
Improvement of processing and marketing of agricultural products	1 962.3	1 646	2 928.4	1 114	1 801.6	1 702.3	86.75
Restoring forestry production potential	51.7	57	82.3	39	52.1	51.6	99.80
Land reparcelling [1]	67.2	46	129.3	32	64.5	62.8	93.49
Rural renewal and the preservation and protection of cultural heritage [1]	327.2	3 425	687.0	2 036	404.6	395.9	121.00
Diversification of agricultural activities and similar activities	315.2	7 170	524.8	4 106	296.8	282.0	89.48
Agricultural water resources management [1]	371.2	308	606.5	255	375.6	373.0	100.49
Development and improvement of technical infrastructure in agriculture	161.1	4 953	261.0	3 394	153.8	146.7	91.04
LEADER+ Pilot Programme	114.3	435	151.8	316	118.6	115.5	101.04
Support for the Project management and implementation system	54.2	220	79.5	180	50.6	44.8	82.65
Institutional development	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:	6 600.3[2]	80 710	11 644.9	50 319	6 827.4	6 592.3	99.87

Table 45. Implementation of SOP "Restructuring and Modernisation of the Food Sector and Rural Development, 2004-2006". Source: Implementing Authorities.

[1] *The amounts presented under measures: Land reparcelling, Rural renewal and the preservation and protection of cultural heritage and Agricultural water resources management apply only to the EU funds. The amounts do not include the national co-financing; therefore, the use of the limit has been presented as a percentage of the used EU allocation part for the above mentioned measures.*

[2] *Financial limits applicable from 16 June 2009 to 30 June 2009 were converted according to 4.4910 exchange rate (European Central Bank rate on the penultimate working day of the European Commission in the month preceding the month for which the limit on EU funds allocation is calculated).*

Since the Programme started, the majority of funds have been allocated to support investments in agricultural holdings and improvement of processing and marketing of agricultural products. Over 88% of tasks implemented as support for investments in agricultural holdings involved the purchase of equipment and movable equipment. As far as the "Improving processing and marketing of agricultural products" is concerned, the activities focused on improvement and control of health conditions (26%), as well as quality improvement and control (22%) and new technologies application (18%).

Rural Development Programme 2007-2013 RDP 2007-2013)

Europejski Fundusz Rolny
na rzecz Rozwoju Obszarów Wiejskich

The Rural Development Programme 2007–2013 (RDP 2007-2013) is a document specifying the scope and form of support for rural areas in Poland in the next programme period, i.e. 2007-2013. Many measures provided for in the Programme are 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 the EU cohesion policy.

The RDP 2007-2013 was adopted on 24 July 2007 at the meeting of the Rural Development Committee of the European Commission and approved for implementation on 7 September 2007 by the decision No CCI2007PL-06RPO001 of the Commission of the European Communities.

The Rural Development Programme 2007–2013- is financed both from the EU budget (European Agricultural Fund for Rural Development – EAFRD) and from the national public funds. The total public funding under the Programme amounts to approx. EUR 17.4 billion. The EU funds allocation exceeds EUR 13.2 billion. The share of national public funds will total approx. EUR 4 billion. The funds to be distributed amount to approx. EUR 14 billion, since nearly 3 billion are the commitments from 2004-2006, taken under the Rural Development Programme 2004-2006.

Applications have been collected for measures from all axes, as well as under the "Technical assistance". *Fig. 16, Table 46.*

According to the data from **12 August 2011**, since the beginning of the Programme implementation the payments made amounted to approx. **PLN 25.33 billion**, including PLN 19.32 billion from the European Agricultural Fund for Rural Development (EAFRD), i.e. **36.23%** of the EAFRD allocation for the RDP 2007-2013. The payments made were the largest under measure *"Support for farming in mountain areas and other less favoured areas (LFAs)"* (approx. **21.38%** of all payments made), *„Early retirement"* (approx. **18.52%** of all payments made), *"Modernisation of agricultural holdings"* (approx. **15.71%** of all payments made) and *„Agri-environmental programme"* (approx. **14.38%** of all payments made).

Evaluation of RDP 2007-2013

Pursuant to the EU regulations, all EU Member States had an obligation to carry out a mid-term evaluation of rural development programmes for 2007-2013 in 2010.

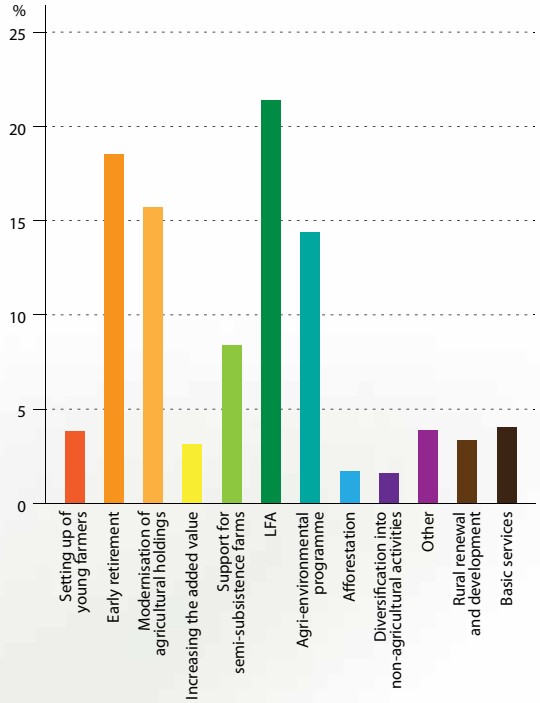

Fig. 16. Payments from public funds made to the beneficiaries of measures implemented under RDP 2007-2013 (as of 12 August 2011). *Source: Prepared in the Rural Development Department of the Ministry of Agriculture and Rural Development on the basis of the ARMA's monthly reports.*

Specification	Number of applications submitted	Number of decisions issued/ agreements concluded	Payments made in PLN million
Vocational training for persons employed in agriculture and forestry	346	69	8.58
Setting-up of young farmers	29 279	16 977	966.70
Early retirement	28 528	19 429	4 692.01
Advisory services for farmers and forest owners	23 539	17 628	14.43
Modernisation of agricultural holdings	77 911	36 403	3 978.80
Increasing the added value to basic agricultural and forestry production	2 614	1 088	803.48
Improvement and development of infrastructure related to the development and adjustment of agriculture and forestry 1/	445	326	118.49
Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments	3 108	1 626	22.08
Participation of farmers in food quality schemes	18 075	14 548	4.55
Information and publicity	11	4	0.23
Support for semi-subsistence farms – commitments from 2004-2006	-	-	2 128.56
Agricultural producer groups	598	578	188.40
Support of farming in mountain areas and in less-favoured areas (LFA) (2007, 2008, 2009 and 2010 campaigns)	3 726 032	2 952 466	5 415.37
Agri-environmental programme	482 051	357 380	3 642.80
Afforestation of agricultural land and non-agricultural land	13 993	8 370	434.62
Restoring forestry production potential damaged by natural disasters and introducing appropriate prevention instruments	276	153	28.92
Diversification into non-agricultural activities	16 704	8 710	410.21
Establishment and development of micro-enterprises	15 523	4 745	238.59
Basic services for the economy and rural population	2 887	2 148	1 022.76
Rural renewal and development	6 615	4 424	847.66
Implementation of Local Development Strategies	22 068	7 228	115.68
Implementation of cooperation projects	259	138	0.42
Running the Local Action Group	1 018	995	127.81
Technical assistance	1 101	691	120.31
TOTAL	4 472 981	3 456 124	25 331.48

Table 46. Processing of applications submitted under RDP 2007-2013. *Source: Agency for Restructuring and Modernisation of Agriculture (as of 12 August 2011).*

The purpose of the evaluation in Poland was to sum up the implementation of the Rural Development Programme 2007-2013 (RDP 2007-2013) at the end of 2009, as well as to present and evaluate the results of implementation of individual measures and the programme as a whole.

The evaluation consisted of four research modules and employed 15 research and analytical methods. It was performed by the research team consisting of 39 persons and supported by 31 external experts.

An important element of the evaluation was the assessment of the expected social and economic impact of the RDP 2007-2013. In included the analysis of such social and economic impact indicators as economic growth, job creation and labour productivity.

Due to the low level of the Programme implementation at the end of 2009, its macroeconomic effects so far were evaluated as insignificant, particularly before 2009. However, according to estimations, the implementation of the RDP 2007-2013 resulted in a growth of GDP by 0.22% and an increase in the number of employed persons by 0.28% between 2007 and

2009. Therefore, the target indicators of the Programme's impact were achieved in almost 50% already in the years 2007-2009.

According to the evaluator, the target indicators will be significantly exceeded in the coming years (i.e. 2010-2015). The impact of the RDP 2007-2013 on economic growth is to amount to 1.5% and on employment growth to approx. 1.7%.

FISHERIES

The Polish fisheries sector benefited from the financial support under Sectoral Operational Programme "Fisheries and Fish Processing 2004-2006" and Operational Programme "Sustainable Development of the Fisheries Sector and Coastal Fishing Areas 2007-2013" (OP FISHERIES 2007-2013) that 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 allowed continuation of modernisation of the fish processing industry thanks to Sectoral Operational Programme "Fisheries and Fish Processing 2004-2006."

The Programme's Measure 3.4 **"Fish processing and fishery market" consisted of four operations:**

3.4.1. Increase in the production capacity (construction of processing plants or investments in the existing processing plants).

3.4.2. Modernisation of existing processing plants without increasing their production capacity.

3.4.3. Construction of premises for fish product wholesale.

3.4.4. Modernisation of existing premises for fish product wholesale.

Financial aid for the implementation of projects in fish processing and trade in fish products was granted to applicants to cover up to 40% of the project's eligible costs. In the case of projects encompassing devices reducing negative environmental impact or technologies aimed at reducing negative environmental impact, financial aid would cover up to 70% of the project's eligible costs. From the onset of the SOP, enterprises dealing in fish processing or wholesale of fish and fish products were the fish market participants that made the most effective use of EU funds. Throughout the programming period, companies from the fish sector from all over Poland filed 304 applications for subsidies whose total amount was PLN 386 million. As a result of verification of the applications, 233 agreements were signed for the total amount of PLN 247 million. As a result of implemented projects, the Agency for Restructuring and Modernisation of Agriculture paid out over PLN 234 million to beneficiaries. The amount earmarked for the measure was absorbed in 93%. The majority of projects (75 projects for the total amount of PLN 97.7 million) were implemented in Pomorskie Voivodeship. The beneficiaries' own contribution was PLN 139.4 million. Zachodniopomorskie Voivodeship ranked second in terms of the number of implemented projects: 58 projects were implemented for the total amount of PLN 71.9 million with beneficiaries' own contributions of PLN 106.9 million. The largest project was also implemented in Zachodniopomorskie Voivodeship. The beneficiary was Koszalin-based and the project consisted in purchasing a production building and adapting it to fish processing. The total cost of the project's implementation was PLN 57 million, of which the amount of the subsidy was PLN 22.8 million. The investment projects implemented were very different: buying means of external and internal transport, buying entire technology lines, such as canned fish production lines, installations for fish drying and smoking, fish product packaging lines, installations for freezing and de-freezing fish, process line to process production waste and to manufacture fish products for direct consumption. In the framework of buying and assembling additional equipment, enterprises purchased inter alia electronic scales, high-pressure washers

as well as water, gas and heating installations. Significant investments also included measures to improve plants' environmental impact. Such projects were granted additional funds – beneficiaries were reimbursed 70% of eligible costs instead of the regular 40%.

Examples of the most frequent investments:

Among the implemented projects, 136 concerned buying machines and providing processing plants with state-of-the-art production equipment (packing machines, forklift trucks, eviscerating machines, additional equipment for production lines), 57 projects envisaged buying means of external and internal transport, 38 projects consisted in construction works (building renovation, construction of warehouses, sanitary facilities and cold stores), 25 projects were conducive to environmental protection and reducing a negative environmental impact (lower use of energy and fossil fuels, reduction in CO2 emission, construction of a waste water treatment plant, mounting solar installations). The production capacity of 48 companies increased and 73 plants had their infrastructure modernised while not improving their capacity.

Five new fish wholesale companies were set up and 19 were modernised. Estimations by the National Marine Fisheries Research Institute show that final production of fish processing companies increased from 301,900 tonnes in 2004 to 380,000 tonnes in 2009. The value of final production was PLN 2.850 billion in 2004 and PLN 4.374 billion in 2009. By the end of 2009, the register of the Main Veterinary Inspectorate (GIW) included 248 processing plants authorised to trade in fish products in the EU. The number of plants authorised to sell directly to Polish local markets also increased. By the end of 2009, the register of the Main Veterinary Inspectorate (GIW) included 211 enterprises, compared to 56 entities in 2006.

The trend to modernise and updating the production chain and trade is continued under Measure 2.5 "Investments in processing and marketing" under 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, support for the industry continues under Operational Programme "Sustainable Development of the Fisheries Sector and Coastal Fishing Areas 2007–2013" in the framework of Priority Axis 2 as Measure 2.5 "Investments in processing and marketing." Under the new financial perspective, PLN 438 million were earmarked for the measure. At least 50% of the amount was earmarked for micro and small enterprises. The percentage of financing of completed investments increased for those entities from 40% under the SOP to 60%.

Modernisation of the processing sector continues under the Operational Programme by achieving the following objectives: improving the potential of the fish processing and trade industry, mitigating the negative environmental impact of fish processing plants and trade in fish products, improving the quality and competitiveness of fish products processed and marketed, maintaining or enhancing employment in fish processing and trade.

The most frequently implemented projects under the measure:

- Building new or renovating old buildings that serve fish processing or trading in fish products,
- Buying or replacing equipment that serves fish processing or trading in fish products,
- Buying means of external (refrigerator trucks) and internal transport (forklift trucks),
- Building or renovating social facilities for employees.

Examples of investment projects:

- Equipping a smoking house, equipping a processing line manufacturing fish salads,
- Extending storage space for fish storage,
- Building a storage cold store,
- Buying a process line,
- Buying a freezing tunnel,
- Construction of an effluent pre-treatment plant.

Under the measure, trade in fish products is also supported with a view to providing the market with high-quality food and ensuring product safety. To that end, the Agency for Restructuring and Modernisation of Agriculture grants aid for the construction, modernisation and investments in equipment for wholesale companies placing fish products on the market.

Under Measure 2.5, 362 applications for financing were filed for the total amount of PLN 993 million, which accounts for 238% of the limit of funds earmarked for Measure 2.5. Due to the extremely high interest among possible beneficiaries, the call for proposals was closed. By the end of July 2011, 216 agreements were signed for the total amount of ca. PLN 338 million. During verification, 141 applications for PLN 589 million in total received a negative opinion and were rejected.

Thanks to progress in technology in recent years, increasing expectations of consumers and adaptation to EU norms, the Polish fish processing industry is becoming a modern and competitive branch of the food industry. EU funds are conducive to modernising the industry branch in such a short time.

Discussion on the Common Agricultural Policy after 2013

On 18 November 2010, the European Commission adopted the ***Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future*** (COM(2010)672). The publication of the document constitutes the first step in the process of interinstitutional consultation on the reform of the Common Agricultural Policy which will serve the Commission as the basis for preparing relevant legislative proposals.

Based on the results of discussions on the CAP after 2013 at the EU forum (Council, European Parliament, European Economic and Social Committee, Committee of the Regions and extensive public debate carried out by the Commission in the first half of 2010), the Communication sets forth the challenges faced by the reform with regard to food security, the environment, climate change and territorial balance. The aforementioned challenges are to be addressed by relevant objectives and instruments of the reformed CAP.

The Communication also outlines the possible options of CAP changes. All the options under consideration assume a review of current CAP instruments. The Commission clearly declares that CAP is to remain a strong EU policy based on two pillars which will face up to the challenges encountered by the EU agriculture and rural areas and which will contribute to the implementation of Europe 2020 strategy in terms of smart, sustainable and inclusive growth.

The reply of Poland to the aforementioned Communication is the Position of the Government of the Republic of Poland, adopted by the Committee for European Affairs on 4 February 2011. The Position calls for maintaining at least the current CAP budget, simplification of the CAP, changing the criteria of allocation of funds for direct payments between Member States (resignation from the current criteria, coupled with historic production), possibility to continue the use of the single area payment scheme (SAPS) and maintaining the current rules of allocation with regard to the second pillar of CAP.

The Communication from the Commission was discussed mainly at the meetings of the Agriculture and Fisheries Council on 29-30 November 2010, 13-14 December 2010, 24 January 2011 and 17 March 2011, where the final discussion on draft Council Conclusions on the subject, drawn up by the Hungarian Presidency, took place. A vast majority of the Member States

supported the document prepared by the Hungarian Presidency, although unanimity was not reached. Therefore, the adopted document obtained the status of the Presidency Conclusions. Upon request of Poland, the document includes a provision on gradual elimination of historical criteria in the distribution of direct payments. The Conclusions also include other provisions, which are consistent with the Position of the Government of the Republic of Poland on the Communication from the Commission, and concern i.a. simplification of CAP, continuation of SAPS beyond 2014 or improvement in the functioning of the food supply chain. The Conclusions call for maintaining a strong CAP, with the budget commensurate with its objectives, and are an important step in the discussion on the direct payment scheme after 2013, in which Poland consistently calls for specifying the future financial allocations based on objective criteria, reflecting the current CAP objectives.

On 25 May 2011, the Committee on Agriculture and Rural Development (AGRI) of the European Parliament passed the draft ***European Parliament resolution on the CAP towards 2020: meeting the food, natural resources and territorial challenges of the future***, which is a reaction to the Communication from the Commission on CAP towards 2020. On 23 June 2011, the draft resolution was adopted at the plenary session of the European Parliament. The Resolution calls for continuation of a strong and sustainable CAP and maintaining at least the current CAP budget, as well as retaining the two-pillar CAP structure and for simplification of the CAP. The Resolution coincides in many aspects with the Position of the Government of the Republic of Poland on the Communication from the Commission.

The activity of Poland on the EU forum with regard to the post-2013 CAP consists not only in presenting the Polish position at the meetings of the Agriculture and Fisheries Council and in numerous bilateral contacts of the Minister of Agriculture and Rural Development Marek Sawicki with other Member States, but also in the participation of the Minister in numerous international conferences on the subject and the organisation of such conferences in Poland.

On 16 June 2011, an international high-level conference ***"Direct payments under the CAP 2020"***, organised by the Ministry of Agriculture and Rural Development, was held in Warsaw. The Minister of Agriculture invited the representatives of the government administrations of the EU Member States, the European Parliament and the European Commission to participate in the conference. Other participants included the representatives of the Polish parliament, academic circles, agricultural associations and organisations belonging to COPA-COGECA, as well as the state administration cooperating with the Ministry of Agriculture and Rural Development on CAP. The aim of the discussion was to compare and bring closer the positions of the Member States on the future direct payments under the post-2013 CAP.

The discussion confirmed that the positions of Member States vary widely and present diversified approaches and arguments on setting objective criteria for distribution of direct payments. The area of agricultural land was indicated as the only or at least the key criterion for payment alloca-

tion. The conference enabled better understanding and bringing closer the positions of both the Member States and other participants of the decision-making process, i.e. the European Commission, which will draft legislative proposals, and the European Parliament, which, since the entry into force of the Treaty of Lisbon, co-decides along with the Council of the EU on adopting legal solutions concerning the Common Agricultural Policy.

On 1 July 2011, Poland took over the EU Presidency for six months. The ***Programme of the Polish Presidency of the Council of the European Union*** sets forth three strategic priorities: ***European integration as the source of growth, Secure Europe - food, energy, defence*** and ***Europe benefitting from openness***. Since agriculture plays a vital role in ensuring food security for European citizens, the issues related to agriculture and rural areas were included under the priority of ***Secure Europe - food, energy, defence***. The reform of the Common Agricultural Policy will be one of the major issues for Poland. In October 2011, the Commission was to present a package of legislative proposals concerning i.a. the direct payments scheme, rural development and market regulation. Poland was to begin discussions on the presented Commission's proposals and lay the foundations for preparing a joint position of Member States, as well as conduct efficient negotiations between the Council and the European Parliament, with the subsequent trio countries, i.e. Denmark and Cyprus. The reformed CAP is to enter into force on 1 January 2014.

The key issue for the Polish Presidency is to create the basis for reaching an agreement on the new direct payments scheme, based on objective and not historical criteria. The work on agreement concerning a strong second pillar is equally important. Other issues of importance for the Polish Presidency include the development of renewable energy sources in rural areas, future of the milk and milk product market, work on legislative package concerning the agricultural product quality policy and the CAP simplification.

50 Years of Common Agricultural Policy

On 12 October 2011 the European Commission published proposals for legislative acts concerning the Common Agricultural Policy (CAP) in the period 2014-2020. These acts shall amend the current rules of the EU support for agriculture and rural areas. The Commission's proposals are a result of several months of negotiations on the EU forum and, pursuant to the provisions of the Lisbon Treaty, their final form will be jointly decided by the Council and the European Parliament. For the first time ever Poland will participate in such comprehensive and cross-cutting changes of this important EU policy which in 2012 will mark the 50th anniversary of its existence.

In accordance with the Commission's objectives, the future Common Agricultural Policy should be "meeting the food, natural resources and territorial challenges of the future". Looking back at the CAP, there are many indications that in terms of its assumptions the policy remains up-to-date, but its instruments have changed.

Beginnings of the Common Agricultural Policy

The CAP was established by the Rome Treaty in 1957. The Treaty included agriculture in the so-called common market formed by six European Economic Community member states, i.e. Belgium, France, the Netherlands, Luxembourg, Italy and Germany (in 1993 the EEC became the European Community and later the European Union). These countries established common economic, political and legal institutions in order to create sustainable economic growth, economic cohesion and to increase the standard of living of their citizens. The underlying premise of these aspirations was the need to ensure broadly defined security and growth, having their foundations in i.a. agriculture and the Common Agricultural Policy, which has been officially in force since 1962 (i.e. after the transition period stipulated in Article 40 of the Rome Treaty expired).

In Europe, a continent ravaged by war, there was a general agreement that agriculture should be treated as a special sector of economy. The CAP's objectives, which were laid down in Article 39 of the Rome Treaty, provided for increasing productivity, ensuring the availability of food supplies for consumers at reasonable prices, stabilising the markets and ensuring a fair standard of living for the agricultural community. The accomplishment of these objec-

tives was based on three overriding principles: market unity, Community preference and financial solidarity. At the same time, the Treaty stipulated that the CAP should take account of the particular nature of agricultural activity, structural and natural disparities between the various agricultural regions and the links between agriculture and the economy as a whole.

Former CAP

The EEC countries introduced high administrative prices and customs protection. Farmers received income support and were encouraged to increase their production, while the EEC gradually achieved food self-sufficiency. However, it was not long before a problem of overproduction occurred and consumers started to bemoan high prices on the internal market. Food surpluses were 'eliminated' from the market by intervention purchases, storage and exports of agri-food products.

This lead to an increase in spending on export subsidies (differences between internal market prices and world market prices were offset to exporters by these subsidies). The budgetary costs were rising, which in turn caused dissatisfaction among tax payers. What is more, export subsidies met with heavy criticism of the international community, which objected to distorting competition on the global market. The Common Agricultural Policy had to be reformed.

Reforms – a difficult path

The Community (which was joined by three new members: the United Kingdom, Ireland and Denmark) reacted to this crisis and to the growing criticism of the public by gradually reducing the production surpluses (introducing milk quotas in 1983, freezing agricultural products prices in 1984, voluntary set aside). Such changes to the CAP were also meant to reduce budgetary costs. However, persistent disproportions in incomes (in the 1980s incomes of farmers were 50% lower than incomes of persons working in non-agricultural sectors of economy) posed difficulties.

In order to enable the then Community to join the Uruguay Round Agreement on Agriculture in 1994, the reform implemented by Commissioner McSharry in the mid-1990s significantly reduced the amount of support prices (in the period 1995-1999) and compensated the difference with compensatory payments whose amount depended chiefly on the level of cattle and cereal production but within the limits corresponding to the levels of historic production.

The next reform, the so-called Agenda 2000, focused also on environment friendly agriculture and introduced structural programmes for the agricultural sector and rural development. These programmes laid the foundations for the rural development policy.

Reorientation and new priorities

The Common Agricultural Policy in its present shape is a result of introducing a package of comprehensive reforms (Agenda 2000 from 1999 and its later review of 2003 – 'the Luxembourg reforms') which draw on the so-called European agriculture model (Treaty of Amsterdam). The reforms stressed the need for increasing the competitiveness of the European agriculture. The price support was replaced by direct payments which were decoupled from agricultural production in the form of a single area rate in a region or in the form of an amount corresponding to the support which a farm received in the past. New Member States could use the Single Area Payment Scheme (SAPS). At the same time, these decoupled payments were made for farmers on condition that they comply with a number of Community requirements and with the so-called good agricultural and environmental conditions within the framework of cross-compliance. A 'second pillar' of the CAP, which supported rural development and the multifunctionality of agricultural activity, was established.

Current CAP

The Common Agricultural Policy, which has been in force in Poland for 8 years, differs significantly from the policy known to countries which joined the EU earlier. External conditions have changed, new environmental, economic and social challenges emerged. The current CAP is crucial not only in ensuring food security for EU citizens. By favouring stable and harmonious growth of Europe and its individual Member States, especially in the context of climate, energy and economic, social and territorial cohesion, it also serves as an instrument for creating sustainable development of agriculture and rural areas. The CAP caters for public good and is conducive to economic growth. It ensures the EU's strong competitive position on the global market and it satisfies the expectations of millions of consumers without violating international trade competition rules.

Work on the CAP 2014-2020

During its 50 years of existence, the Common Agricultural Policy evolved to become a policy readily reacting to the changing conditions and answering the needs and expectations of the EU societies. Supplementing CAP's objectives with new challenges encountered by the EU and at the same time retaining most objectives that have been implemented so far, requires innovative solutions, especially when financial resources are insufficient.

When in July 2011 Poland took, for the first time in the history, the Presidency of the Council of the European Union, it launched work on legislative proposals for the CAP 2014-2020 submitted by the Commission on 12 Oc-

tober 2011. The circumstances in which the work had to be carried out were difficult. The formal negotiations took off in an atmosphere of strong external pressure exerted by global players (pressure on trade liberalization, recovery of economic growth, need to increase global food security, maintaining environmental balance) and in the face of internal problems caused by the recession and financial difficulties. The Polish Presidency wanted the work to unfold in an atmosphere of responsibility and deep reflection, an atmosphere which helps to reach a compromise.

During the Polish Presidency...

...the activities of the Ministry of Agriculture and Rural Development were focused mainly on launching the work on CAP 2020 package on all levels of the Council's structure. The Commission's proposals contain new instruments which are different from those currently functioning in the EU. This calls for a political debate and for in-depth analyses on the possibility of their implementation. Also, it will be necessary to conduct expert analyses of economic and social impact of these instruments. To this end, the first technical analysis of proposals for regulations was carried out by the Polish Presidency (in working groups of the Council), while the talks on direct payments and rural development were took place on the ministerial level. What is important, the Polish Presidency initiated a series of open European debates with the participation of representatives of the European Parliament and of agricultural, non-governmental, environmental and academic organizations, thus intensifying the cooperation between the Council and the Parliament already at the beginning of the decision-making process on the CAP reform, since both those institutions must reach an agreement and adopt final versions of legislative acts.

What comes next

In 2012, intensive work on legislative proposals of the European Commission will continue. This year may prove to be crucial for the future of the CAP if final decisions concerning the UE budget and the shape of the CAP 2014-2020 are made. Just as it has done so far, Poland will continue to actively participate in negotiations striving to create a fully EU, fair and simple CAP after 2013. The CAP should continue to ensure the development of European agriculture and rural areas, integrating the EU and improving its international competitiveness as well as respecting the sustainable growth principles. The reformed CAP shall enter into force in 2014.

Prepared by the CAP Reform Team
Department of the European Union and International Cooperation, Ministry of Agriculture and Rural Development

Agricultural institutions

Agency for Restructuring and Modernisation of Agriculture

Agencja Restrukturyzacji i Modernizacji Rolnictwa

The Agency has been operating for 17 years now. It has become the largest and the most efficient paying agency in the European Union. As at the end of June 2011, it has paid out over PLN 130 billion to farmers, fishermen, food processors and other beneficiaries and the amount keeps increasing by at least PLN 115 million every day.

The Agency for Restructuring and Modernisation of Agriculture was set up under the Act of 29 December 1993 (Dz. U. [Journal of Laws] of 1994, No 12, item 22) to support the development and modernisation of agriculture and rural areas. In the initial period of its operation, ARMA provided support mainly from domestic funds as subsidies for the interest on investment and working capital loans. After Poland's accession to the EU, the Agency's scope of operations extended significantly to include handling instruments of the common agricultural policy and structural funds. The aid to the agricultural and fisheries sector increased significantly: during the first ten years of its operations, ARMA paid out a total of PLN 18.4 billion to beneficiaries, while such amounts are now paid out a year. *Fig. 17.*

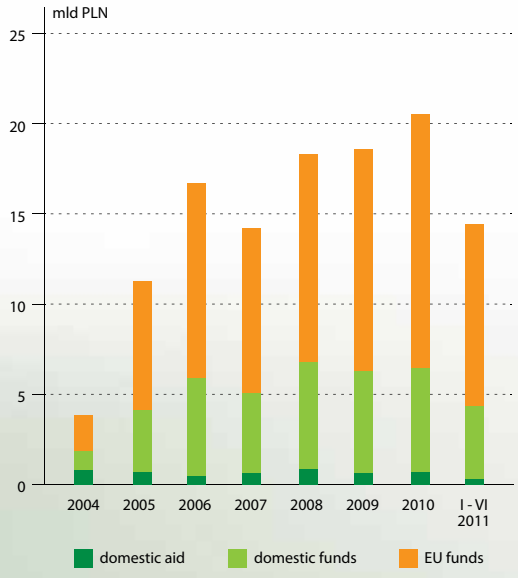

Fig. 17. Funds paid out annually by ARMA between 2004 and 2011 (PLN billion) (as at 30 June 2011)

From 2007, when the new financial perspective started in the EU, the Agency has been responsible for two major programmes implementing the objectives of the EU rural development policy and fisheries policy in Poland: Rural Development Programme for 2007-2013 and Operational Programme "Sustainable Development of the Fisheries Sector and Coastal Fishing Areas 2007–2013." It plays the role of the following:

- Paying agency for common agricultural policy instruments (RDP, direct payments);
- Implementing entity of the Rural Development Programme for 2007-2013;
- Intermediary institution of Operational Programme "Sustainable Development of the Fisheries Sector and Coastal Fishing Areas 2007-2013;"
- Body managing domestic aid instruments.

From the beginning of its operations until 30 June 2011, the Agency paid out PLN 130.7 billion to beneficiaries for aid programmes for agriculture and rural areas. The amount comprised the following:

Direct support systems	PLN 62.80 billion
RDP 2007-2013	PLN 24.59 billion
Domestic support	PLN 17.57 billion
RDP 2004-2006	PLN 10.88 billion
SOP Restructuring ... 2004-2006	PLN 6.56 billion
SAPARD	PLN 4.51 billion
Common organisation of the market in fruits and vegetables	PLN 1.69 billion
OP Sustainable development of the fisheries sector ... 2007-2013	PLN 1.08 billion
SOP Fisheries ... 2004-2006	PLN 1.00 billion
Common fisheries policy	PLN 0.001 billion

Fig. 18.

The Agency for Restructuring and Modernisation of Agriculture supports the development of the Polish agriculture, food economy and rural areas; it also disburses large sums for the restructuring and modernisation of the fisheries sector. ARMA serves the largest group of beneficiaries in the European Union. Its electronic database includes over 33 million land parcels for the majority of which the Agency annually calculates and pays out area payments. Moreover, it is very efficient at that. In recent years, over 95% of applicants (and Poland has the largest number of applicants in the EU) received direct payments by the end of March (i.e. three months prior to the deadline). In this regard, Poland is the European leader.

ARMA has also been the most efficient among EU Member States to implement the Rural Development Programme for 2007-2013. The RDP is the most important source of financing for investments to achieve im-

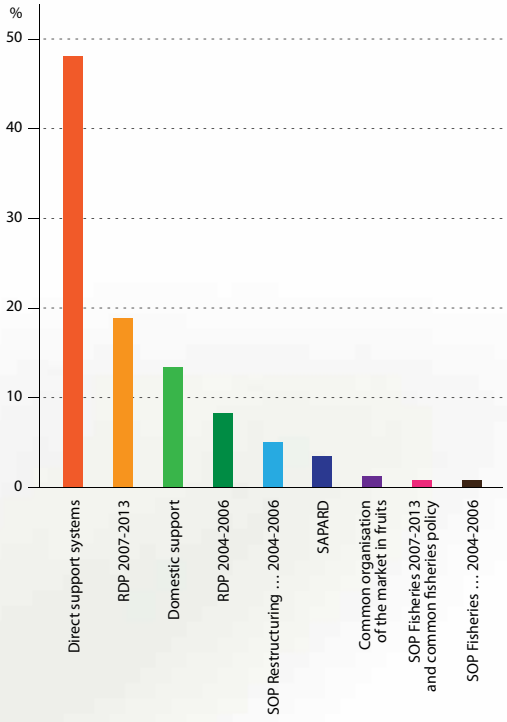

Fig. 18. Percentage structure of funds paid out by ARMA from its beginnings to the end of June 2011

provement in area of great importance, such as competitiveness of holdings and processing plants, creating new jobs in rural areas, development of organic and environmentally-friendly farming methods, developing rural infrastructure in a wide sense, e.g. construction of roads, water supply systems, sewage systems, expanding tourist infrastructure and modernisation of cultural centres.

Operational Programme "Sustainable Development of the Fisheries Sector and Coastal Fishing Areas 2007-2013" that has been implemented for three years arouses great interest of ship-owners, fishermen, local governments, scientific centres and companies that process and trade in fish. Approx. EUR 1 billion was earmarked for the Programme, while for measures implemented by ARMA it was EUR 616 million.

The system of supporting farmers from the state budget, established by the Agency, is also functioning well. In the framework of providing such aid, ARMA pays a considerable part of interest on loans taken out by farmers. Tens of thousands of farmers used such support a year. The total amount of investment loans they received was PLN 2.4 billion. Subsidies for the interest on the so-called natural disaster loans, i.e. loans intended to re-start production by holdings damaged due to natural disasters, are an important element of support offered by ARMA. The interest on such a loan paid by the farmer is only 0.1%, if the holding was adequately insured. The rest of the interest due to the bank is covered by the Agency. The total value of such loans was nearly PLN 500 million in 2010. At present, the Agency is handling close to 300,000 such loans. The national budget also supports, through ARMA, the costs of rendering dead farm animals such as: cattle, sheep, goats, pigs and horses.

More information on all kinds of aid, both from EU programmes and domestic funds, is available from ARMA's website at www.arimr.gov.pl. You are also invited to visit ARMA's Regional Branches and Poviat Offices where you can receive expert advice on the support offered by the Agency. There is also a free hotline: 0 800 380 084 – it is open seven days a week between 7 am and 9 pm.

Agricultural Market Agency

ARR 20 lat 1990-2010 Agencja Rynku Rolnego

From Poland's accession to the European Union, the Agricultural Market Agency has been operating according to EU and national legislation as an accredited paying agency administrating the mechanisms of the common agricultural policy (CAP). The Agency finances its operations from the EU and national budgets, as well as from funds to promote agri-food products. AMA's operations are conducive to stabilising the situation on the agri-food

market and improving competitiveness of agri-food products. They are focused on agricultural producers, processors, exporters and increasingly also on consumers. In 2010, the Agency's expenses were: 59% – payments for agricultural producers, 21% of funds were used to support consumers, and 20% went to enterprises operating in the sectors of agri-food processing and foreign trade in such products.

AMA's operations cover over 50 support mechanisms intended for agricultural market participants. Eighteen of the mechanisms are not directly linked with payments of funds to beneficiaries. The Agency develops and improves measures supporting eating good Polish food that are focused directly at consumers. The AMA also manages programmes aimed at shaping proper dietary habits among children and youth (such as "Glass of milk" and "School Fruit Scheme"). It continues the implementation of measures promoting Polish agri-food products: regional, traditional, organic and those covered by quality schemes. Thanks to support from AMA, sectoral groups and organisations are able to carry out effective promotional and informational campaigns not only in the EU, but also in third countries.

The statutory tasks of the Agricultural Market Agency involve:

- Paying out funds to participants of particular CAP and national mechanisms;
- Issuing individual decisions concerning the beneficiaries of such mechanisms;
- Carrying out controls concerning the confirmation of entitlements to the funds paid out;
- Providing the European Commission with information concerning CAP mechanisms implemented by AMA;
- Informing the actors of the mechanisms of decisions taken at the EU level with reference to CAP mechanisms implemented by AMA (i.a. by informational campaigns and publishing);
- Collecting, analysing, processing and providing information concerning the agricultural and foodstuff markets in Poland and abroad, as well as preparing forecasts concerning the situation on these markets.

Support granted by the AMA to beneficiaries from Poland's EU accession until the end of the first half of 2011 was over PLN 10.9 billion (of which PLN 1.6 billion was the value of ready foodstuffs distributed as food aid and PLN 0.1 billion were the expenses from funds promoting agri-food products).

In 2010, support granted by the AMA amounted to PLN 1.6 billion (of which PLN 0.7 billion was paid for the mechanisms financed from the national budget, PLN 0.5 billion was paid under pre-financing from the European Agricultural Guarantee Fund (EAGF), and ca. PLN 0.4 billion was the value of ready food products provided to the most deprived in the EU).

Financial support for beneficiaries is a measurable effect of the tasks implemented by the Agency, but not the only one. Payments of funds are accompanied by a wide range of administrative measures connected, ***inter alia***, with milk quotas, technical controls, granting authorisations to ware-

houses and processing plants, issuing decisions and permits as well as monitoring and controlling production and agri-food processing.

The entities participating in the mechanisms administrated by the Agency must register at the Central Register of Entrepreneurs run by the Agency. From Poland's accession to the EU to the end of June 2011, there were 579,000 beneficiaries registered therein. In 2010, the number of administrative decisions and agreements prepared by the AMA Head Office and Field Branches was over 392,000 against 362,000 in 2009.

In 2010, the tasks performed by the Agency, divided into groups, were as follows:

1. Intervention buy-in of agricultural products and processed agricultural products – PLN 170.7 million were spent for purchasing, storing and transporting cereals in 2010. The Agency continued intervention buy-in of barley and wheat from the 2009 harvest and in the 2009/2010 season took in 366,000 tonnes of cereals for reserves, of which 99.8% was barley. Intervention cereal reserves collected in economic season 2008/2009 were distributed in 2010 in the framework of the mechanism "Provision of food surplus to the most deprived in the European Union." Between February and June 2010, intervention warehouses located in Poland issued 79,200 tonnes of barley and 1,400 tonnes of wheat for that purpose. In 2010, due to high market prices compared to intervention prices of skimmed milk powder and butter, EU enterprises were not interested in selling these products for intervention reserves during the intervention buy-in period. The AMA spent PLN 4.8 million for the storage of the above dairy products purchased in 2009. Between May and the end of September 2010, the Agency distributed a part of the skimmed milk powder purchased in 2009 (i.e. close to 18,000 tonnes) and 1,900 tonnes of butter from intervention warehouses as food aid. In exchange for stocks collected, enterprises were to provide finished food to charity organisations. Controls of compliance with the authorisation conditions of warehouses and production plants were carried out.

2. Supporting consumption – the activity of the Agency focused on socially beneficial actions intended, *inter alia*, to stimulate the consumption of agri-food products and shaping proper dietary habits of children and youth is developed on an annual basis.

"Glass of milk" programme – the basic assumption of the programme is to promote a healthy diet and to stimulate the consumption of milk and dairy products among children and students. In 2010, the Agency made payments to consumption of milk and dairy products in primary schools (financed by the state budget) of PLN 102.9 million and payments to consumption of milk and dairy products in educational establishments (financed by the EU budget) of PLN 46 million. In addition, financing for the programme from the Milk Promotion Fund (administrated by the Agency) was PLN 4.6 million. Under the programme, children and students were provided 62,000 tonnes of milk and dairy products in 2010.

The interest of students in the "Glass of milk" programme is increasing systematically. In school year 2009/2010, over 2.4 million children and stu-

dents were covered by the programme. It was 31,000 more that in the previous school year and 3.8 times more than in school year 2004/2005 (initial year of the programme). The attended over 14,600 educational establishments whose number was 3% higher than in school year 2008/2009 and nearly 3.4 times higher than in school year 2004/2005.

"School Fruit Scheme" – the aim of the Scheme launched in school year 2009/2010 is to shape the dietary habits of children by increasing the share of fruit and vegetables in their daily diet as well as to promote a healthy diet by means of educational activities at primary schools. Under the programme, students from primary school grades 1-3 receive free fruits (apples, pears, strawberries) and vegetables (carrots, sweet peppers, radishes), as well as fruit, vegetable and fruit and vegetable juices. The number of children and primary schools covered by the "School Fruit Scheme" increases every semester. In the second semester of school year 2010/2011 agreements with 99 approved suppliers were signed by 8,600 primary schools (close to 6% more than in the first semester of the school year) and five schools purchased and provided vegetables on their own. The number of children covered by the programme in the second semester of school year 2010/2011 was 792,000. They comprised nearly 68% of the target group of students covered by the programme. The Agency paid out PLN 31.9 million for the implementation of the School Fruit Scheme in 2010, out of which EU funds accounted for PLN 23.9 million and state budget funds for PLN 8.0 million.

Provision of food surplus to the most deprived in the European Union – the Agricultural Market Agency provides food to the most deprived on an annual basis through charity organisations, such as: Federation of Polish Food Banks, Caritas Polska, Polish Red Cross and the Polish Social Assistance Committee. Under the programme, the Agency took over products (cereals, skimmed milk powder, butter and sugar) from EU intervention stocks in 2010. The enterprises participating in the programme in 2010 provided 38.5 million litres of UHT milk and 93,000 tonnes of ready-made foodstuffs to 4 million people in need. 10,000 supplies of food to 149 warehouses located all around Poland were made. The food was distributed to the most deprived through 7,700 local charity organisations. In 2010, the Agency spent PLN 77.5 million for aid to the most deprived (advances paid to enterprises for purchasing foodstuffs on the market, the costs of transporting finished food products to the warehouses of charity organisations and administrative costs of charity organisations). In the framework of food aid, the Agency provided ready-made foodstuffs whose value was PLN 390 million to the most deprived in 2010.

In the framework of support to the poorest in the EU, those in need received 600,000 tonnes of ready-made food products between 2004 and 2010.

3. Producer support programmes/mechanisms

Subsidies to seed material – the Agricultural Market Agency has acted to increase the quantity of high-quality seed material used by agricultural holdings by reimbursing farmers for a part of the costs of buying elite or certified seed material from 2007. The Agency provided financial support in the

framework of de minimis aid in agriculture, i.e. support whose amount does not result in distortions on the Single European Market. In 2010, 56,000 agricultural producers received subsidies to seed material from the Agency. The expenses for providing financial support for buying high-quality seed material amounted to PLN 77.1 million in the framework of ***de minimis*** aid in agriculture (28% more than such support in the previous year). The financial support provided by the Agency results in higher interest of farmers in using certified seed material. Compared to 2009, the number of applications filed to the Agency increased by 31% in 2010.

As a considerable part of Poland suffered the effects of the 2010 flood, the Council of Ministers adopted Resolution No 87/2010 of 1 June 2010 on aid for farming families whose agricultural holdings or special sectors of agricultural production suffered damages due to flood, landslide or hurricane.

Farmers who bought and sown elite or certified seed material and filed applications for subsidies to the Agency between 15 July 2010 and 1 June 2011 are eligible for financial aid from the Agency in 2011. The payments will not be treated as ***de minimis*** aid in agriculture.

Special measures to support the milk market – in the framework of special measures to support the milk market granted to Poland, the Agency paid out PLN 83 million to over 91,600 Polish milk producers who suffered considerable losses due to the economic and financial crisis still before the deadline falling on 30 June 2010.

Support for the bee products market – under the National Apiculture Programme, the Agricultural Market Agency paid out PLN 16.4 million to authorised entities, i.e. beekeeping unions, associations and cooperatives, in 2010. The majority of funds were spent for buying bees and medicines for warrosis (91% of the total funds). Subsidies were also offered for trainings, honey analyses, buying laboratory equipment and renting platform trailers for transporting beehives.

Restructuring of the sugar industry – restructuring aid was financed from the Provisional Restructuring Fund established using restructuring contributions paid by sugar and isoglucose producers manufacturing in the EU. Sugar and isoglucose producers paid the restructuring contributions, which added up to PLN 2.5 billion from the time of accession. The AMA passed the contributions on to the state budget. The restructuring system assumed restructuring aid for sugar producers who were under the obligation to pass on a part of the aid to sugar beet planters and for entities providing services for planters using specialised farming machinery. In June 2009, the AMA paid out restructuring aid for sugar producers in the amount of PLN 1.29 billion. Sugar producers passed on the due part of the aid to 26,600 planters (PLN 477 million) and 94 service providers.

Sugar industry diversification – in 2010, in the framework of performing the tasks resulting from the National Restructuring Programme, the Agency paid out a total of PLN 30.6 million, of which PLN 30.4 million went to co-finance buying machines and equipment under Measure "Modernisation of agricultural holdings" and PLN 0.2 million were spent to support invest-

ments connected with processing agricultural products for energy purposes. The deadline for investment projects under the Programme is 30 September 2011 and aid for diversification is paid out until 30 September 2012.

4. Export support – in the framework of administering trade with third countries, in 2010 the Agricultural Market Agency issued 3,800 permits for import and export of agri-food products, of which the majority were permits for beef and veal (1,900), poultry and eggs (700) and cereals (300). Exporters of good to third countries were paid export refunds of PLN 44.9 million for 58,800 tonnes of agri-food products. The majority of refunds were paid for export of: red meat (PLN 25.8 million), milk and dairy products (PLN 12.6 million) and non-Annex I processed products (PLN 2.9 million). The major sale markets for the agri-food products covered by export refunds were countries of the Commonwealth of Independent States (mainly Russian and Ukraine). Polish exporters sold their products also to North America, Africa and Asia.

5. Payments for raw tobacco producers and starch potato planters – according to the system of supplementary direct payments adopted by Poland, the Agency made coupled and decoupled payments in the starch and tobacco sector in 2010. Agricultural producers received the largest support since the accession, namely PLN 507.5 million in 2010, of which raw tobacco producers received PLN 471.3 million and starch potato planters were granted PLN 36.2 million. It was over 43% more than in 2009.

6. Production and processing subsidies – in 2010 the Agricultural Market Agency paid starch producers subsidies of PLN 9.1 million for 99,000 tonnes of potato starch under starch production quota, subsidies of PLN 0.5 million for 3,600 tonnes of dry fodder and PLN 0.4 million for the processing of 1,000 tonnes of flax and hemp fibre.

7. Production capping systems – the Agency grants producer manufacturing rights in the framework of limits and monitors their use on the milk and potato starch markets. Production quotas on the sugar market are granted by the Ministry of Agriculture and Rural Development. Potato starch producers, whose participation in the quota system is voluntary, receive support in the form of production subsidies.

The AMA manages the milk production quota system under which it currently handles 186,000 wholesale and direct suppliers and conducts a number of measures, such as: registering applications and issuing decisions on granting or revoking individual milk quotas, monitoring buy-in volumes by suppliers in a given quota year and the degree of using production limits, handling transfers and conversions of individual quotas, monitoring the number of wholesale and direct suppliers, controlling the quantity of milk marketed in a given quota year, monitoring fat content in purchased milk, registration of entities purchasing milk and dividing the national reserve of the national reference quantity. In the framework of the above, the Agency issued ca. 150,000 administrative decisions in 2010.

In quota year 2009/2010, the use of the national quota was 95%, of which the use of the national delivery quota was 95.6% and the use of the national direct sales quota was 58.3%.

8. Administrative measures for the monitoring and control of production, processing and trade with third countries

Apart from making payments to beneficiaries of CAP mechanisms and national funds and from measures connected with capping production of certain agri-food products (quota), the tasks of the Agency include actions not directly connected with payments that are essential to correct functioning of monitoring mechanisms and measures required by EU regulations for certain markets. They include:

- Administrating the distribution of fruits and vegetables not intended for sale,
- Administrating the mechanisms of trade with third countries,
- Administrating the grapevine and wine production potential in Poland,
- Issuing quality certificates for butter and skimmed milk powder to be used under CAP mechanisms in other EU Member States,
- Monitoring sugar and isoglucose production,
- Monitoring and controlling the use of non-quota sugar and non-quota isoglucose in the framework of supplies to peripheral regions of the EU and export outside the EU,
- Monitoring and controlling the use of industrial sugar,
- Monitoring and controlling the refining of cane sugar,
- Exercising supervision of the processing of energy crops that were covered with cultivation subsidies into final energy products, i.e. liquid biofuels, electricity or heat,
- Monitoring the market of biocomponents and liquid biofuels manufactured by farmers for their own use, including keeping the register of manufacturers and a register of farmers, performing controls of the entities entered to those registers,
- Monitoring economic activity in respect of agricultural biogas production or generating electricity from agricultural biogas,
- Issuing permits for the use of casein and caseinates to manufacture cheese.

Other measures administrated by the Agency are: in the area of foreign trade on the sugar market – exporting non-quota sugar (from October 2009) and importing sugar for refining (from June 2010), as well as monitoring agricultural biogas production. In December 2010, energy companies pursuing economic activity in the area of producing agricultural biogas or generating electricity from agricultural biogas could apply to the Agency for entering them into a register. At the end of the first half of 2011, the register included 11 agricultural biogas plants owned by six power companies.

9. Promotional and informational measures

Support to promotional and informational measures on the markets of selected agricultural products – the mechanism administrated by the Agricultural Market Agency provides an opportunity to obtain funds that allow enterprises to compete on the global market more effectively. Sectoral promotional and informational programmes are also intended to make con-

sumers aware of and remember the qualities of Polish products. Agricultural products can be promoted under this EU mechanism both on the internal EU market and on external markets. As a part of activities carried out in 2010, the Agency participated in the implementation of both the continued and the newly started promotional and informational programmes, such as: "Table full of flavours," "I choose milk and dairy products," "European table – tradition, modernity, quality," "Vegetables and fruits 5 times a day" and "Ecology." The Agency spent PLN 17.4 million for those programmes in 2010.

From 2011, the Agency has been implementing measures in the framework of the "Informational campaign on pork (fresh, chilled or frozen) manufactured in accordance with the national Pork Quality System (PQS)." Also, in June 2011 the European Commission approved another three Poland's promotional and informational campaigns: "Fall in love with rapeseed oil," "New quality in poultry husbandry" and "Vegetables, fruits or juice 5 times a day" whose total budget is EUR 9.5 million.

Handling funds to promote agri-food products – pursuant to the Act on the agri-food product promotion funds, the Agency has been administrating nine separate funds to promote agri-food products established on 1 July 2009: for milk, pork, beef, horsemeat, sheep meat, poultry meat, cereals and cereal products, fruits and vegetables as well as fish. Measures carried out under these funds are to stimulate the consumption and promote agri-food products both on national and foreign markets. Particular promotion funds receive quarterly payments from ca. 8,000 entities producing, purchasing and processing agricultural products. In 2010, 150 promotional and informational projects were launched that were financed or co-financed from promotion funds and received PLN 22 million.

Promotional and informational measures under RDP 2007-2013 – the Agency participates in tasks delegated in the framework of promotional and informational measures under RDP 2007-2013 acting as the implementing authority. The AMA accepts and examines applications for measures promoting products manufactured in the framework of high-quality food schemes, such as: "Community system for the certification of regional and traditional products" (that covers "Protected Designations of Origin," "Protected Geographical Indications" and "Traditional Specialities Guaranteed"), "Organic Farming," "Integrated Production" and "Quality and Tradition." Under the above measures, beneficiaries can apply for the reimbursement of up to 70% of the costs incurred for promotional campaigns.

Other aspects of AMA's operations

The Agency's technical control services located throughout Poland allow ensuring an appropriate level of verification of beneficiaries' eligibility to receive financing. The services perform checks and verifications at the beneficiary's registered office or in places where production or processing takes place. Between Poland's EU accession and the end of June 2011, AMA controllers conducted close to 147,000 controls, of which 17,400 in 2010 alone.

The Agricultural Market Agency carried out informational measures that allowed extensive access to information on the mechanisms admin-

istrated by the Agency, the conditions of participation in the mechanisms and the situation on the agri-food market. The measures serve to prepare beneficiaries for using EU and national funds as best as possible. In addition, the Agency collects, processes and shares market data on agricultural and food products, inter alia by way of publications (brochures and AMA's Information Bulletin), market reports as well as analytical and projection studies presenting the situation on the agricultural market in terms of supply and demand.

The Agricultural Market Agency is an active and visible partner of international projects and ventures that entail inter-institutional cooperation. It implements aid programmes for third countries (e.g. providing expert knowledge for agricultural segment institutions from Croatia, Serbia, Moldova and Ukraine) and carries out a number of measures aimed at supporting Polish enterprises from the agri-food sector in the area of foreign trade. The information the Agency gathers on the opportunities to develop trade and investment cooperation from foreign entities, including on preferential export conditions, are provided to Polish enterprises on an ongoing basis via the Agency's website www.arr.gov.pl (bookmark "Information on support for foreign trade") and distributed to producer and processor associations and unions by e-mail (eksporter@arr.gov.pl).

The Phone Information Point plays an important role in the Agency's informational activities (tel. 22-661-72-72).

To ensure the highest quality of its operations, the Agricultural Market Agency implemented and certified a Quality Management System based on PN-EN ISO 9001. In 2010, the Agency underwent an audit of supervision of the Quality Management System as a result of which its certification was extended to include all offices of the Headquarters and Field Branches. By the end of 2010, the Agency also certified the Corruption Threat Prevention System (CTPS) and in December 2010 it received a certificate confirming the System's implementation from Polskie Centrum Badań i Certyfikacji S.A. As a result of receiving both the certificates, the Agency merged the two systems into a single Management System. The system in place at the Agency facilitates cooperation on the organisational level; it is conducive to reducing the administrative burden on beneficiaries and improving the quality of tasks carried out.

In 2010, the Agency underwent controls from, inter alia, the European Commission, European Court of Auditors, Supreme Audit Office (NIK), Ministry of Finance and Ministry of Agriculture and Rural Development. Domestic controls and EU audits confirmed that the Agency performed its tasks in a reliable, efficient, timely and correct manner and that it applied high beneficiary service standards.

Agricultural Property Agency

The Agricultural Property Agency is an institution representing the State Treasury towards state property in agriculture for 20 years now. Until mid-July 2003, it operated under the name Agricultural Property Agency of the State Treasury. It was established in October 1991. The property taken over by the Agency, mainly from the liquidated state agricultural holdings and the State Land Fund make up the Agricultural Property Stock of the State Treasury.

The Agency is self-financing, i.e. does not receive budget allocations for its maintenance and operations. The costs of including property of the State Treasury in the Agricultural Property Stock, restructuring thereof, preparation to disposal (e.g. land surveying, setting up land and mortgage registers, procurement announcements), securing buildings of historical value, maintenance of non-production property (e.g. a large part of the housing facilities), etc. as well as of the Agency's operations are financed fully from the income obtained in the course of performing its tasks as defined in its statutes. Moreover, in 2005 the Agency started to supply the state budget with the amounts of the difference between its income obtained as a result of management of the Property Stock in a given economic year and the funds spent on the implementation of its statutory tasks. Between 2005 and the end of June 2011, the Agency supplied the state budget with over PLN 6 billion. In addition, the Agency was obliged to contribute the revenues from selling Stock property to the Compensation Fund that pays out compensations for Zabużanie (former residents of eastern Poland who were resettled after the territory was handed over to the Soviet Union in 1945) for leaving property behind outside the current borders of Poland. Between 2006 and the end of the first half of 2011, the Agency paid over PLN 2.7 billion to the Compensation Fund. Between 2005 and the end of June 2011, the Agency's contributions to the state budget and the Compensation Fund totalled PLN 8.7 billion.

Executing statutory provisions and other laws, the Agency implements tasks relating to:

1. Creation and improvement of the area structure of family run holdings;
2. Creation of conditions facilitating the rational usage of the production capacity of the Agricultural Property Stock of the State Treasury;
3. Restructuring and privatization of the State Treasury property used for agricultural purposes;
4. Trade in real property and other items 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. Initiating furnishing and agricultural works on land owned by the State Treasury and support for setting up private agricultural holdings in the above mentioned areas.

The Agency included 4.7 million ha of land in the Agricultural Property Stock of the State Treasury. Apart from land, other property (mainly from the former state agricultural holdings), with a book value of PLN 8.6 billion, was taken over. The Agency also assumed the liabilities of the former state agricultural holdings towards ca. 30 thousand entities, amounting in total to PLN 2 billion. The above mentioned obligations were fully settled with the use of the funds acquired through privatisation. Data as at the end of June 2011 show that the Agricultural Property Stock of the State Treasury covered 2.043 million ha of land.

The material structure of the property taken over by the Agency included 336,200 apartments with infrastructure (boiler rooms, hydrophore plants, waste water treatment plants, etc.), agri-processing industry facilities, as well as trade and service facilities, such as: 858 distilleries, wineries and breweries, 269 meat processing plants and slaughterhouses, 898 grain and green crop driers, 717 fodder mixing facilities, 31 mills and groats plants, 75 refrigeration plants, as well as 415 shops, 147 hotels, inns, restaurants and bars, 672 establishments of a social, cultural or sports character.

The predominant method in which the property included in the Agricultural Property Stock is distributed consists in sales and leasing, organised mainly through unrestricted tenders. From the beginnings of the Agency's existence until the end of June 2011, the Agency held over a million tenders for the sale of land. In that period, the Agency sold over 2 million ha of land, mainly in the following voivodeships: Warmińsko-Mazurskie, Zachodniopomorskie, Pomorskie, Dolnośląskie and Lubuskie; this is a result of the territorial distribution of the Agricultural Property Stock.

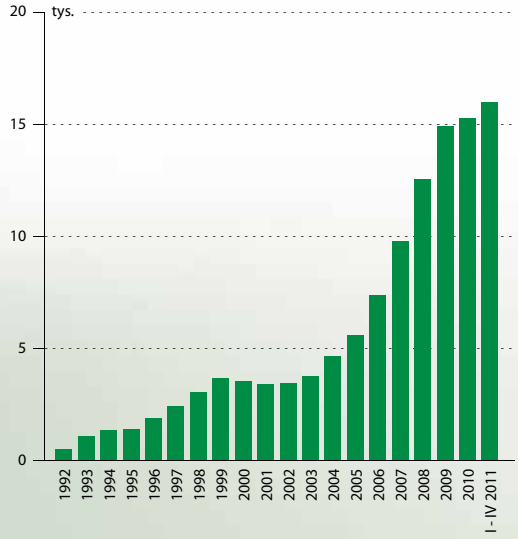

Fig. 19. Prices of land owned by the APA in PLN per ha.
Source: APA data.

As concerns the transactions consisting in selling land by the Agency, it should be noted that the prices increased at a fast pace after Poland's accession to the EU (cf. Fig. 1). The highest increase was posted in 2007 (by 33% yoy). For the past three years, the growth rate of prices of agricultural land from the Stock has been decelerating. Last year, the increase was only 1.3% as compared to the previous year. *Fig. 19.*

Irrespective of the sales, by the end of 2010 the Agency permanently transferred ca. 563 thousand ha, of which: 152,160 ha to the State Forests, 52,080 ha to local governments, ca. 84,650 ha to legal persons established by the authorities of various denominations, 172,340 ha to regional water management boards (lands located at lakes with running water) and almost 23,770 ha were transferred to companies as contributions. A Total of 78,390 ha were distributed among other entitled entities and in other transfer forms (converting perpetual usufruct into ownership, merging and exchange of land, removal of co-ownership, etc.).

Leasehold is another form of transferring land owned by the Stock. At present, 1.550 million ha or 75% of the land held by the Stock is under leasehold. The vastest areas under leasehold are located in field branches of the Agency in: Wrocław, Szczecin, Poznań and Olsztyn. Yet in the process of land disposal the significance of leasehold is decreasing systematically, as confirmed by the fact that last year only 17,000 ha were leased and in the first half of the recent year the figure was only 5 939 ha.

The majority of leasehold agreements express rent in decitonnes (DT) of wheat per hectare. In the first quarter of 2011, the rent was 8.3 dt/ha for new agreements. In 2010, average leasehold rent was 7.7 dt of wheat per hectare and was visibly higher than in 2009, when it was 5.8 dt/ha and slightly higher than in 2007 and 2008 when it was 6.7 dt/ha and 6.9 dt/ha, respectively. For comparison: the rent under the same agreements in 2006 was 0.4 dt/ha and in the years 2005 and 2004 it was 3.8 dt/ha and 3.5 dt/ha, respectively. The average leasehold rent for all valid agreements remains low and is approx. 2.9 dt/ha (cf. Fig. 2). *Fig. 20.*

Apart from agricultural land, the Agricultural Property Agency also owns ca. 100,000 ha of non-agricultural land (investment land and historical buildings), including ca. 69,000 ha located within administrative borders of cities. The parcels are intended for industrial, commercial, housing as well as sport and leisure facilities. They are characterised by attractive locations, regulated legal status and clear purchasing procedures. In 2010, the Agency sold over 1,600 such parcels for the total amount of PLN 287 million.

The APA exercises supervision of 49 companies breeding plants and animals of particular importance to the national economy. The companies pursue creative and conservation breeding, they also collect the most valuable plant and animal genetic material that is essential to biological progress. These companies play the leading role in plant breeding as they hold a 50.8% share in agricultural plant varieties and 60.5% share in vegetable varie-

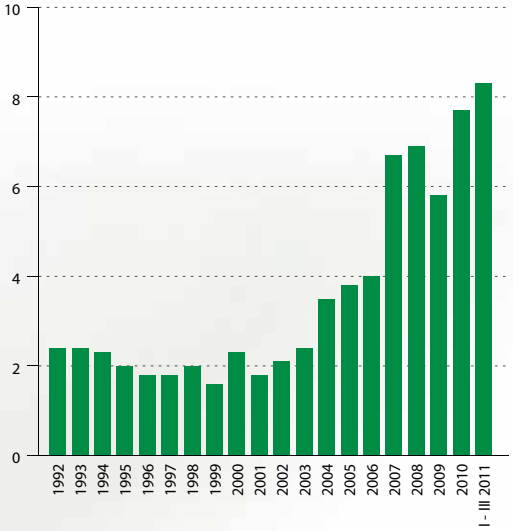

Fig. 20. Average lease rent on agricultural land for agreements concluded by the APA between 1992 and Q1 of 2011 in dt of wheat per 1 ha; *Source: APA data.*

ties from domestic breeding entered into the Register of Varieties. Animal breeding companies mainly breed cattle, but also pigs and sheep to a lesser extent. Apart from their main activity that consists in horse breeding, Horse Studs and Stallion Studs also engage in cattle breeding and milk production. The purpose is to maintain economic security and obtain funds for horse breeding. Companies of the Agricultural Property Agency have a genetic stock of domestic animal breeds adapted to local soil and climatic conditions.

As already mentioned, the Agency is a task-based institution. Its main task is to privatise state property in agriculture and to rationally manage the property it was entrusted until that time. Although the Agency has already permanently transferred over 50% of the area of State Treasury property taken over by the Resource, it remains an important tool supporting the agricultural policy, e.g. in shaping the agrarian system and achieving important public objectives. It should be noted that due to reducing the area of land owned by the Stock, the focus shifts from "making land available" for different purposes to "financial support" for attaining the purposes. It forces intensification of selling Stock land.

In the last two years, the Agency's activities were targeted on accelerating the process of Stock assets' privatisation. In the years 2009-2010, the Agency introduced many by-laws to ensure improved effectiveness and transparency of its activities as well as acceleration of performing its tasks. Some significant changes were introduced ***inter alia*** in the area of the rules of leasing Stock properties that are supposed to be conducive to the intensification of sale.

Agricultural Social Insurance Fund

Pursuant to the Act of 20 December 1990 on farmers' social insurance (Dz. U. [Journal of Laws] of 2008, No 50, item 291, as amended), the Agricultural Social Insurance Fund is an institution for social insurance providing farmers with a social insurance scheme that is separate from the national scheme. The President of the Fund is a central government administration authority subject to of the minister in charge of rural development. Tasks of the Fund include the following:

- Providing services to with farmers and persons cooperating with farmers in the framework of agricultural activity (spouses and household members) in relation to inclusion in the social insurance scheme and payment of contributions for the insurance;
- Granting and paying financial benefits from the insurance;

- Issuing medical opinions in order to determine entitlement 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 entitled to Fund benefits with total incapacity to 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 2010, around 1.53 million people were covered by the farmers' social security scheme and around 1.37 million people received pensions from the insurance.

Moreover, the Fund fulfils a number of other tasks it was entrusted with gradually by the State on the basis of separate provisions. These tasks include ***inter alia*** the following:

- Servicing 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 people entitled to farmers' social insurance (financed from the State budget) and for agricultural pensioners to the National Health Fund (NFZ). In 2011, the annual amount of health insurance contributions financed from the State budget will amount to PLN 1.86 billion;
- Payment of civic financial benefits that is, ***inter alia***: benefits for war veterans, lump sums for energy, benefits for former miners-soldiers, benefits for secret teaching and for victims of repressions from the Third Reich and the USSR.

Since 2004, the Fund has been participating in the implementation of tasks concerning the coordination of social insurance systems in EU Member States (EEA and Switzerland) resulting currently from Regulations No 883/2004 and 987/2009 of the European Parliament and of the Council.

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

The Pension Fund serves to finance pension benefits and health insurance contributions for farmers. The Pension Fund is made up of pension insurance contributions paid by farmers and budgetary allocations. In 2011, the allocation will amount to approx. PLN 15.12 billion.

The Fund for Prevention and Rehabilitation is designed to finance Agricultural Social Insurance Fund's activities in the area of accident prevention and therapeutic rehabilitation. The Fund is made up of a deduction from the Contribution Fund and budgetary allocations. In 2010, the allocation will amount to PLN 1 million.

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

The social insurance of the farmers is effected 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 each. Altogether, the Agricultural Social Insurance Fund has ca. 270 organisational units throughout Poland.

The Fund is a member of the largest international associations bringing together social security institutions globally, such as: ISSA (International Social Security Association, bringing together social security institutions from more than 130 countries) from 1992 and IAAMRH (International Association of Agricultural Medicine and Rural Health) concerned with agricultural medicine. Henryk Smolarz, the current President of the Agricultural Social Insurance Fund, has been the Chairperson of ISSA Section on Prevention in Agriculture from September 2009.

Agricultural consultancy

The fundamental institutions providing agricultural consultancy services in Poland are the 16 Voivodeship Agricultural Advisory Centres (AAC). The Centres operate pursuant to the Act of 22 October 2004 on agricultural advisory units (Dz. U. [Journal of Laws] No 251, item 2507, as amended). According to data of the Central Statistical Office, Centres provide advisory services to 630,000 farmers out of the total of 680,000 farmers who use advisory services. The Act stipulates that AACs have legal personality and from 1 August 2009 they have been self-government legal persons subject to competent voivodeship Sejmiks. In 2010, AACs employed 4,484 advisors. The Centres' objective is to achieve sustainable development of agriculture and rural areas. The most important tasks include educational, informational and disseminating activity among farmers and the rural population. AACs organise trainings for farmers and other people living in rural areas to improve their professional skills, provide advice on managing holdings with the possibilities offered by the European Union, provide advice on improving the competitiveness and profitability of holdings, prepare market analyses and variety experimentation in the framework of post-registration variety experimentation. Each of the 16 AACs publishes its own newspaper (monthly) for farmers. Pursuant to the said Act, AACs can render their services to farmers free of charge and for a consideration.

In addition, pursuant to the above-mentioned Act, there is the Agricultural Advisory Centre (AAC) in Brwinów subject to the Minister of Agriculture and Rural Development. Apart from the Brwinów-based headquarters, AACs have branches in Krakow, Poznań and Radom. The Centre mainly pro-

vides services in professional training of agricultural consultants. It also certifies advisors and keeps lists of certified advisors (agricultural, forestry, agri-environmental and environmental experts) who are authorised to provide advice relating to Rural Development Programme for 2007-2013. As at July 2011, the list of agricultural advisors comprised 3,600 people, the list of agri-environmental advisors included 2,025 people, the list of forestry advisors covered 326 and the list of environmental advisors was populated with 282 names. The AAC and the Polish Association of Agricultural and Agribusiness Economists issue a quarterly intended for advisors and agricultural consultancy scientists entitled "Zagadnienia doradztwa rolniczego" [Issues in Agricultural Consultancy].

Apart from public agricultural consultancy units, services in agricultural consultancy are also provided by agricultural chambers and economic operators operating based on an entry into the economic activity register or the National Court Register. Private consultancy entities wishing to provide consultancy services to farmers are receive subsidies under Measure "Advisory services for farmers and forest owners" under Rural Development Programme for 2007-2013 must have an accreditation from the Minister of Agriculture and Rural Development. The requirements of obtaining an accreditation are: employing certified advisors who have been entered into the list kept by the AAC, experience in consultancy activities for farmers as well as having an appropriate office and administrative background and equipment. At present, accreditations in the area of agriculture have been granted to 128 entities that employ a total of 269 advisors, while accreditations in the area of forestry have been granted to 270 entities (mainly forest inspectorates) that employ in all 324 forestry advisors.

The European Union requires all Member States to provide farmers with agricultural consultancy services, primarily in the area of adapting an agricultural holding to cross-compliance requirements. Thanks to funds from Measure "Advisory services for farmers and forest owners" under Rural Development Programme for 2007-2013, it is possible to include private consultancy entities in the process of providing services in the area and improving the availability of consultancy services. Yet, farmers must participate in the costs of the services they receive under the measure – they pay 20% of the services' value.

The Polish agricultural consultancy system guarantees the possibility of using advisory services to all interested farmers.

Agricultural schools

Public agricultural schools are run by local self-government units (mainly at the level of poviats) and by the Minister of Agriculture and Rural Development. The Ministry of Agriculture supervises 45 School Complexes – Agricultural Education Centres attended by ca. 12,000 students and employing approx. 1,700 teachers. The teaching base for practical education are school

workshops, laboratories for practical classes, school agricultural holdings, agricultural holdings of individual farmers, agricultural advisory centres, food processing plants, catering and hotel establishments, R&D units and universities. The schools run by the Ministry offer education in 28 occupations, in fields such as: agricultural production, horticulture, agricultural technology, agricultural processing, agribusiness, landscape development, agricultural tourism, catering services, inland fisheries, veterinary medicine, environmental engineering and melioration.

Running agricultural schools, the Minister of Agriculture and Rural Development has the opportunity to directly influence the quality and effectiveness of agricultural education, and thus to create the personnel policy for the agri-food sector. Agricultural schools are to equip their graduates with knowledge and occupational skills enabling them to take up employment in the agricultural service sector and effectively compete on the free market, as well as continuously increase and improve their occupational qualifications. In order to implement these assumptions, the Ministry takes up activities in the following fields: modification of educational areas and curricula with the aim of adjusting to the changing conditions of production and life in rural areas; promotion of module education; education and in-service trainings for teachers of vocational subjects (the main role is played by the National Centre of Agricultural Education in Brwinów subject to MARD); and ensuring an appropriate teaching base for practical training at agricultural schools.

The agricultural school run by the Ministry become agricultural training centres with good didactic equipment and adequately prepared teaching staff. By organising different forms of education targeted at young adults and adults from rural areas, as well as cooperation with other entities working for the agri-food sector, they will influence the development of rural areas.

R&D potential

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

- 12 research institutes reporting to the Minister of Agriculture and Rural Development, including seven National Research Institutes:
  - Institute of Agricultural and Food Economics – National Research Institute in Warsaw;
  - Institute of Soil Science and Plant Cultivation – National Research Institute in Puławy;
  - National Veterinary Research Institute – National Research Institute in Puławy;
  - Institute of Zootechnics – National Research Institute in Balice near Krakow;
  - Institute of Plant Protection – National Research Institute in Poznań;

- Plant Breeding and Acclimatization Institute – National Research Institute in Radzików;
- Sea Fisheries Institute – National Research Institute in Gdynia;

- Universities (consisting of 47 faculties) reporting to the Minister of Science and Higher Education;
- Nine scientific institutions reporting to the Polish Academy of Sciences; and, in part, institutions reporting to other ministries (Ministry of the Environment, Ministry of Economy and Ministry of Health). The organisational structure of supervision of the operations of R&D institutions, as defined in their statutes, in the area of agriculture, agricultural markets, fisheries and rural development, as well as the conditions of basic financing is presented in *Fig. 21.*

Funds for R&D in agriculture are obtained from budget subsidies of the Ministry of Science and Higher Education. The Ministry of Agriculture and Rural Development provides funds from its budget to research institutes for the implementation of multi-annual programmes. Due to gradual reduction of funds from the budget of the Ministry of Science and Higher Education for activities defined in its statutes, R&D institutions, particularly research institutes, obtain funds thanks to: their participation in international scientific and technical cooperation, for services rendered to economic operators and scientific entities in the framework of activities as defined in their statutes, and from other legally viable sources, such as leasing unnecessary assets, interest on capital, credits, loans, etc.

Research institutes supervised by the Ministry of Agriculture and Rural Development are currently implementing six multi-annual programmes aimed at monitoring the transformations in the agri-food sector and in rural areas, as well as at setting quality standards necessary to establish the criteria of consumer-safe production processes in agriculture and food processing. Three other multi-annual programmes for the agri-food sector have already completed the stage of inter-ministerial consultations and once they meet all the requirements, including financial ones, they are to be launched in the nearest future.

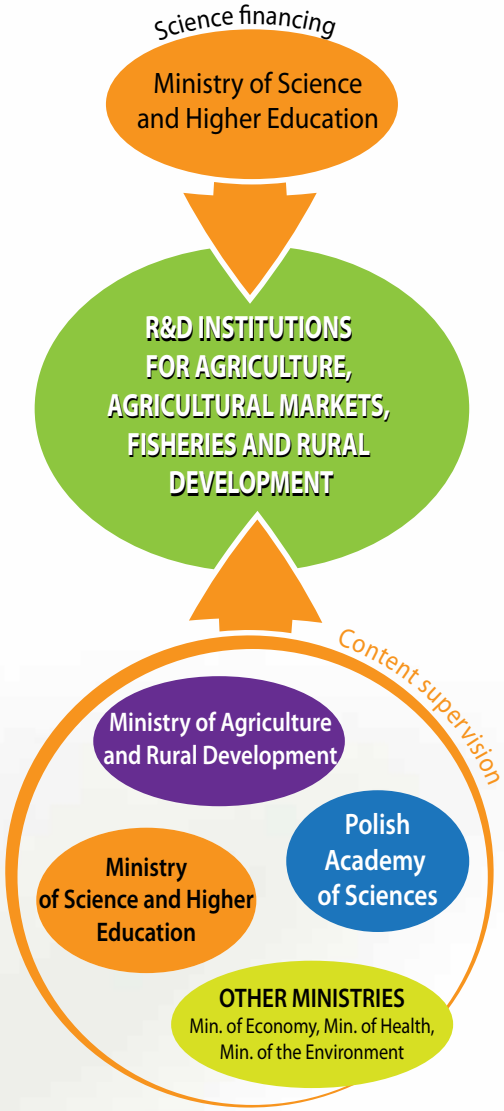

Fig. 21. Organisational structure of agricultural sciences in Poland

The scientific potential of the base supporting the transformation process taking place in the agri-food sector is represented by 6,200 employees holding academic degrees, which is depicted in the following table. *Table 47.*

This is a considerable scientific potential that supports Poland's agricultural policy and the common agricultural policy of the European Union.

Assessing the functioning of the R&D base of agriculture, agricultural markets and rural areas, it should be noted that scientific circles actively support systemic transformations. By participating in modernisation processes, they pursue their mission by research and development, innovation, implementation and dissemination activities.

In the framework of work on adapting the R&D base of the Ministry of Agriculture to the conditions of cooperation with partners from the European Union, Centres of Excellence and Centres of Competence were set up in research institutions of the Ministry of Agriculture and Rural Development: at the Plant Breeding and Acclimatization Institute – Crop Improvement Centre for Sustainable Agriculture, [CICSA], at the Sea Fisheries Institute – Centre of Excellence in Marine Fisheries Sciences, [POLMARF], at the Research Institute of Horticulture – Research Centre of Excellence in Sustainable Pomology, [PomoCentre], at the Institute of Soil Science and Plant Cultivation – Protection of Land and Water Quality and Sustainable Development of Rural Areas, [PROLAND], at the Institute of Technology and Life Science – Renewable Energy Centre of Excellence and Competence in Poland, [RECEPOL] and – Transfer of knowledge in agricultural engineering [TRAGEN], at the Institute of Natural Fibres and Medicinal Plants – Medical plants in nutrition and medicine – a step towards integration engineering with European standards, [MEDNAM]. The Centre for Advanced Technologies is located in Skierniewice at the Research Institute of Horticulture. Its future activities are to significantly improve the conditions of putting research results into practice.

The R&D base of agriculture, agricultural markets and rural development has undertaken active cooperation also under the 7th European Union Framework Programme, as well as ERA programme – NET and EUROAGRI. Polish scientists have been carrying out coordination work in the Working Group of research programme "Development of Sustainable Agriculture in Baltic Sea Area" under the Standing Committee on Agricultural Research at the European Commission.

Scientific units / Employees	Research Institutes of the MARD	Scientific Units of the PAoS	Research Institutes subject to other ministries	Universities	Total
Total number of employees:	4 015	578	1 408	10 289	16 290
Professors	151	75	71	1 034	1 331
Scientists with a dr hab. degree	140	47	34	575	796
Scientists with a dr degree	584	132	302	3 071	4 089

Table 47. Research and development personnel in agricultural sciences

Research is continued in the new Virtual Institute of Sustainable Agriculture – a widely-accessible real-time IT informational and research application with a regularly updated database.

The scientific circles will be actively involved in the work on the tasks result-

ing from the European Union's Strategy for the Baltic Sea Region developed by the European Commission.

On the initiative of the Minister of Agriculture and Rural Development, the 1st Congress of Agricultural Sciences was held in Puławy in May 2009. The purpose of the Congress was to define solutions that will be conducive to full integration of the scientific policy with the agricultural policy. The conclusions presented during panel sessions and plenary speeches referred not only to current economic or social needs, but also highlighted the most important areas of scientific activity in agricultural sciences in the short-term and medium-term perspective. The issue of coordinating the activity of the entire R&D base working in the area of agricultural and related sciences is very important to the future as well as economic and social development. It is the responsibility of the Minister of Agriculture and Rural Development. Good coordination should ensure better use of the intellectual potential, comprehensive and useful research and more rational use of funds provided for science by the State budget.

Conclusions from the Congress show that we should carry out research aimed at seeking the most advantageous form of development of the Polish agriculture, taking into account its regional conditions, rational management of water, soil and air resources, seeking plant varieties, also high-protein varieties, that are resistant to the stress of drought and vermin. Research in the area of breeding should make use of the most recent global trends, including the trends in genetically modified organisms (GMO). Important problems noted during the Congress also include the infrastructure of agricultural holdings and rural areas, as well as ensuring the most favourable sources of renewable energy. The Congress showed that solutions to prevent climate warming should accompany research in all research fields. The success of the Congress involved discussions and proposals of solutions pointing out that technological, technical, organisational or social issues relating to agriculture, rural areas, fisheries and forestry should be analysed in the context of economic and legal conditions as, ultimately, they decide and will decide on their rational use.

During Poland's presidency in the Council of the European Union in the second half of 2011, in September 2011, international conference entitled ***Food and Nutrition in the 21st Century*** organised under the patronage of the Ministry of Agriculture and Rural Development.

The 2nd Congress of Agricultural Sciences was planned for 5 October 2011. Its assumption is to work out national strategic research programmes whose future implementation should ensure sustainable development of agriculture, food processing, fisheries and rural areas. Implementation of those research programmes should also result in improving the competitiveness of the Polish agri-food sector on the international market and ensure the highest quality food to consumers.

Addresses of cooperating institutions

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e-mail: kancelaria@minrol.gov.pl

AGRICULTURAL MARKET AGENCY
(AGENCJA RYNKU ROLNEGO)
Information and Promotion Bureau (Biuro Informacji i Promocji)
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AGENCY FOR RESTRUCTURING AND MODERNISATION OF AGRICULTURE
(AGENCJA RESTRUKTURYZACJI i MODERNIZACJI ROLNICTWA)
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e-mail:info@arimr.gov.pl

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FOUNDATION OF ASSISTANCE PROGRAMMES FOR AGRICULTURE
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MAIN INSPECTORATE OF THE AGRICULTURAL AND FOOD QUALITY INSPECTION
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