



# **AGRICULTURE AND RURAL ECONOMY IN POLAND**

**Ministry of Agriculture  
and Rural Development**





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WARSAW, 2012

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## Dear Readers!

It is our tradition to issue, each autumn, a publication entitled "Agriculture and Food Economy in Poland".

The updated data relate to basic information on Polish agriculture, fisheries, processing industry and rural areas.

The year ahead of us will be a very important one, when the key decisions on changes in the Common Agricultural Policy past 2013 will be taken. Poland has consistently advocated that CAP should be simplified, and that the conditions of support for farmers should be levelled across the European Union. The decisions that will be taken will determine the capacity of European agriculture to develop and to compete on the global market. Polish farmers and Polish food processors make a good use of the funds available to them, even though the conditions are not equal. In this way they contribute to the process of modernisation of farms and of processing plants. Having good raw materials, modern plants and proven recipes, Poland has achieved good results in foreign trade in agricultural products. The balance of trade in this group of goods is positive – in 2011, the surplus exceeded EUR 2.6 billion. In terms of value, our export corresponds to almost ¼ of the value of agricultural production. This means that the search for new outlet markets and diversification of export destinations are extremely important for the development of our agriculture.

To ensure the high quality of food and to foster consumer trust in our products, we should establish a new dedicated inspection institution. To ensure food safety, as well as rational and effective use of control services, the Ministry of Agriculture has undertaken intensive efforts to establish a uniform service - State Food Safety and Veterinary Inspection. Such a body would be a merger of the Veterinary Inspection, Agricultural and Food Quality Inspection, Plant, Health and Seed Inspection, and the food quality control services of the State Sanitary Inspection. Our analysis, as well as experience of other countries, have shown that the optimal way to control the food chain from farm to fork is a system where a single organisational unit is in charge of the supervision. I am convinced that changes we propose will benefit both the consumers and the producers.

There will be more changes to come. Work is underway to introduce the income tax in agriculture, to amend the Act on crop and farm animal insurance, and to develop assumptions for the Act on creating a Fund for Guaranteed Benefits for Sold Products. Also the role of agricultural and rural cooperatives should be changed, they could become a segment of agricultural sector of growing importance. We will attempt to raise awareness among farmers of the role played by cooperatives, and we will prepare appropriate changes in the law as well as in the curricula of agricultural schools.

This is what awaits us in foreseeable future. Meanwhile, I encourage you to read our publication and to get acquainted with the most current data on agriculture, fisheries, rural areas and food economy in Poland.



Stanisław Kalemba  
Minister of Agriculture and Rural Development

## GENERAL INFORMATION ABOUT POLAND

Poland is a country in Central Europe, with the territory of 312.7 thousand km<sup>2</sup> (in the 6th biggest country among EU-27, and the 68th in the world) and the population of 38.2 million (6th place in EU-27, 68th – in the world).

Since 1 May 2004, Poland is a member of the European Union. Poland comes 6th among UE-27 in the size of its population, first – when it comes to rural population, and second (following Romania) – in the number of farms. The number of people employed in agriculture, hunting, forestry and fisheries is 2.5 higher than the share of people working in these sectors in the EU-27 (14.5% and 5.6%, respectively). Poland occupies 7.2% of the total area of the European Union, and it borders with 7 countries, including 4 EU Member States (Germany, Czech Republic, Slovakia and Lithuania) and 4 non EU countries (Russia, Belarus, Ukraine).

The country is characterised by considerable natural and environmental diversity. National parks covering over 314.5 thousands of hectares, as well as 1463 natural reserves of the total area exceeding 164 thousands of hectares, landscape parks of total area of almost 2607 thousand hectares, and natural monuments in the number of 36.3 thousand are all subject to special protection. The share of forest areas in the total area of the country exceeds 30%. Numerous animal species are protected, including: bison, chamois, bear, beaver, lynx and wolf.

Over 75% of the area of the country is located below 200 meters above sea level, and merely 3.1% percent above 500 meters above sea level.

The climate of Poland is characterised by considerable differences in the duration of seasons. In the past three years, the average air temperature varied between 8.6 °C and 9.4 °C, and total precipitation varied between 609 mm and 717 mm.

Precipitation is the main source of water resources and is characterised by considerable annual, monthly and regional variations. As a result, there are drought areas, flooding and even floods.

As of 31 December 2011, the measurements of temperature and of precipitation were carried out by 268 stations and measuring posts, whereas at 990 posts only precipitation was measured. The highest temperature in 2011 was recorded in July in climate monitoring station in Grabik and it amounted to 38.2 °C, and the lowest temperature of -31.4 °C was recorded in Białowieża climate monitoring station. The highest amplitude of extreme temperatures in Poland in 2011 was 69.6 °C..

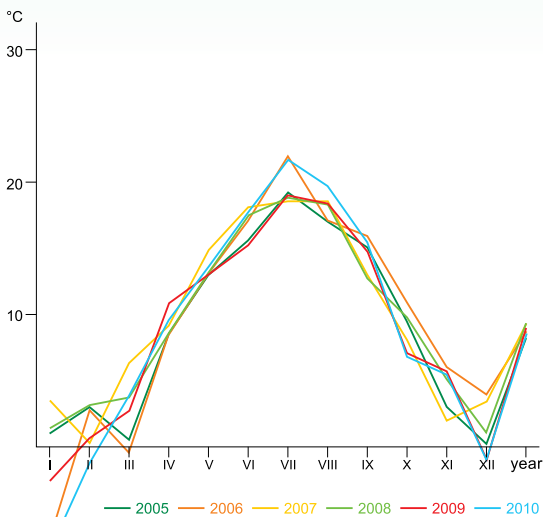


Fig. Average monthly air temperature in Poland in the years 2005 – 2010 (in °C). Source: Central Statistical Office (GUS) – Statistical Yearbook of Agriculture, Warsaw 2011.

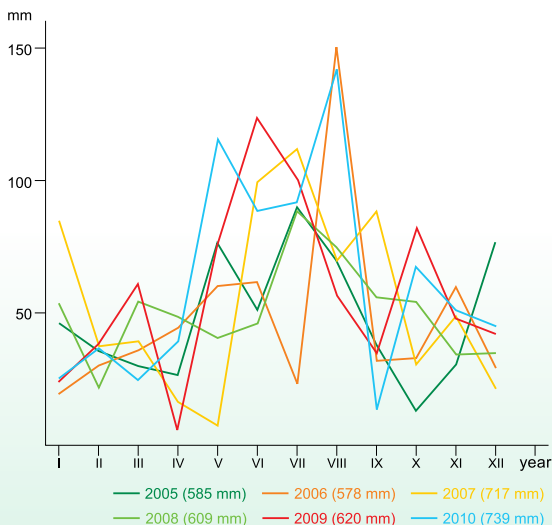


Fig. Average monthly precipitation in the years 2005 - 2007 (in millimeters). Source: Central Statistical Office (GUS) – Statistical Yearbook of Agriculture, Warsaw 2011.



Maximum daily precipitation in 2010 was recorded in precipitation measuring station in Szczyrk – it was 213 mm.

Poland is a country with a low level of water resources. In the years 1980 – 2010, the average annual outflow of surface waters, including foreign tributaries, amounted to 62.3 km<sup>3</sup>, and from the area of the country – it amounted to 54.4 km<sup>3</sup>. This translates into annual resources of surface waters ca. 1.6 dam<sup>3</sup> per inhabitant, whereas the corresponding figure for the countries of Europe is estimated at 4.6 dam<sup>3</sup>.

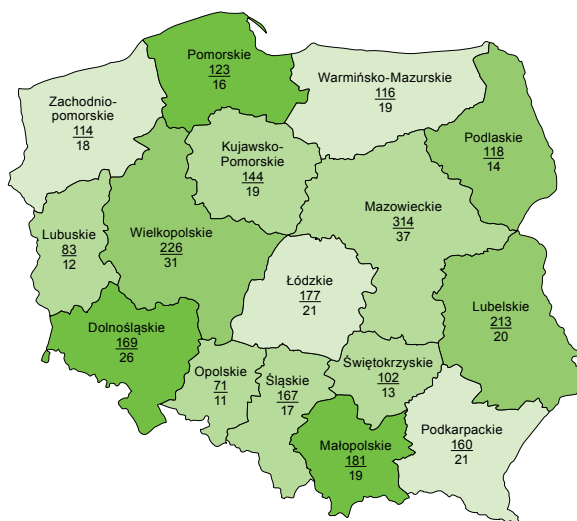
Polish water resources are characterised by a significant seasonal variability and by an uneven territorial distribution. Retention reservoirs have low capacity and may retain in the country only 6% of the annual outfall of waters, thus not providing sufficient protection against seasonal excess or deficit of water.

Poland is divided into 16 voivodeships, 314 poviats, 65 cities with the rights of poviats, and 2,479 gminas. Auxiliary administrative units in gminas include, i.a., the so called solectwo (office of sołtys), the number of which exceeds 40.3 thousand. Mazowieckie Voivodeship is the biggest one in Poland, both in terms of area (35.6 thousand km<sup>2</sup>) and in terms of population (5.2 million). Opolskie Voivodeship has the smallest area (9.4 thousand km<sup>2</sup>), and Lubuskie Voivodeship the smallest population (1.0 million). The gmina having the largest area is Pisz (634 km<sup>2</sup>), and having the smallest area is Górowo Iłowieckie (3 km<sup>2</sup>). The Capital City of Warsaw is the gmina with the largest population (1.7 million), the Capital City of Warsaw is also a city in Mazowieckie Voivodeship with the rights of powiat; whereas Krynica Morska in Pomorskie Voivodeship has the smallest population in Poland.

In 2011, the population of Poland was 38.2 million, including 23.3 million living in urban areas, and 9.4 million in rural areas. Compared to 2000, the population of Poland decreased by almost 54 thousand; the decrease was recorded only in urban areas (407 thousand). During this period, the population of rural areas increased by 352 thousand. Compared to 2010, the number of live births decreased (from 417 to 413 thousand), as well as the fertility rate (from 1.398 to 1.382). Compared to the previous year, the rate of live births per 1,000 population decreased (by 0.2) and it amounted to 10.8, compared to 9.6 in 2005, and 9.9 in 2000. The number of deaths, compared to 2010, decreased by (17 thousand), as well as their percentage per 1,000 inhabitants (from 10.0 to 9.8).

According to the population projection prepared by Central Statistical Office (GUS), the population of Poland will decrease systematically until 2035 (by 2.3 million). It is forecasted that in rural areas the internal migration balance will be positive, yet decreasing, and it will not compensate for the loss of rural population, estimated at 0.5%, caused by the decreasing number of births. Creating new jobs in urban areas will be a major factor curbing depopulation of urbanized areas, next to settling in cities by persons who stayed there temporarily.

Polish economy grew much faster in 2011 than in 2010, and much faster than forecasted. In fear of the long term effects of the global crisis, it was assumed in the budgetary act for 2011 that the GDP of Poland would grow by 3.5%, however, it actually grew by 4.0% (in 2009, GDP grew by 1.6%). Poland came fourth among the EU countries in GDP growth rate, preceded by Sweden and Baltic countries, which have been attempting to regain the rate of growth from before the crisis of 2009 – 2010. In result, the growth rate recorded in Poland in 2011 was significantly above the EU average (1.6%). The internal demand remained a major driver of our economy, accompanied in the second half of 2011 by investment demand. Also the results of foreign trade had a positive impact on economic growth of the country. The dynamics of individual consumption decreased a little, compared to 2010 (by 0.1 pp). The rate of growth of domestic consumption was curbed by strong inflation pressure and by limited demand for bank credits, which was caused, i.a., by the fact that consumption credits were getting more expensive and less easily accessible. Consequently, the level of household debt decreased, compared to the



2478 - Liczba gmin  
16 - Liczba województw

Fig. Territorial division units in Poland.

previous year (lower in real terms by 6.3%). Average employment in business enterprise sector increased in 2011 by 3.2%. However, the rate of registered unemployment increased from 12.4% in 2010 to 12.5% in December 2011. The average real wages in business enterprise sector increased (by 0.9%, compared to 2010), and the purchasing power of retirement pension and of employment pensions increased by 0.4% and by 0.2%, respectively. After two years of decline, in 2011 the investment activity of economic operators increased, fostered, i.a., by very good financial standing of enterprises. Their net financial result was higher in real terms 11%, compared to 2010. This trend may be weakened in 2012, due to unfavourable conditions in the world economy, and to decreasing domestic demand. In 2011, the long lasting trend of growing public deficit was reversed - a considerable achievement. General government deficit in relation to GDP decreased (from 7.9% in 2010 to 5.6% in 2011). The ratio of public debt to GDP was not improved (54.9% in 2010, 56.6% in 2011). A small increase of this debt and the good prospects of reducing it made it possible for Poland - one of a few countries - to maintain an unchanged level of its credit worthiness (credit rating).

Throughout 2011, the level of foreign trade was high. The exports in terms of euro increased, compared to 2010, by 12.8%, whereas the imports increased by 12.1%. Negative balance of trade in commodities amounted to EUR 14.7 billion with the surplus in agri-food products exchange of EUR 2.6 billion.

Total agricultural production increased in 2011 by 1.1%, including a 3.8% growth of plant production, thanks to high crops (excluding crops of cereals, rape and turnip rape). Animal production decreased, compared to the previous year (by 2.1%), due mainly to a considerable drop in the number of pigs (by 11.7% compared to 2010) and of bovine animals (by 1.1%).

Positive balance was once again recorded in trade in agri-food products in 2011 - EUR 2.6 billion. The increasing - starting at the time of accession - significance of foreign trade in agri-food products for the balance of payment and trade is worth mentioning. The surplus obtained in foreign trade in food decreases the negative trade balance in the total of foreign trade of Poland. The share of agri-food exports in total Polish exports in 2011 amounted to 11.1%, compared to 11.2% a year before, and that of imports to 8.3%, compared to 8.1% in 2010.

In 2011, a higher dynamics of prices of agricultural products sold by farmers than the dynamics of prices of goods and services purchased by farmers was recorded for the second time. The price scissors indicator was 107.3, compared to 110.2% a year before, 96.1% in 2009, and 90.1% in 2008. The prices of the majority of products on agricultural market considerably exceeded the level of 2010. The dynamics of the increase of prices of products sold by individual farms was 118.8%, whereas the dynamics of the increase of prices of goods and services purchased by farmers was 110.7%. Prices of the majority of basic products of food and animal origin were higher than a year before. The significant increase of prices of goods and services purchased by farmers for consumption and investment purposes lead to a situation where the so called „price scissors” were less advantageous than a year before.



# AGRICULTURE

## General characteristics

Polish agriculture is characterised by significant dispersion – the average area of agricultural land per farm is gradually increasing, and in 2011 it amounted to 8.7 ha (compared to 8.6 ha in 2010). Over a half of farms produce mainly or exclusively for their own use, thus limiting their expenses on food and family maintenance. Such farms of a relatively small area employ traditional production methods, consisting in a limited use of mineral fertilisers and chemical plant protection products, as well as of industrial fodder in feeding farm animals, especially cattle. Despite these phenomenon and the prevalence of soils of low usefulness for agriculture, Poland is an important European and global producer of agricultural and horticultural products, as well as of products of animal origin.

Poland also holds a leading position in the production of berries (strawberries, raspberries and currants) and outdoor grown vegetables, such as: onion, cabbage and cauliflower.

Soil and climatic conditions, as well as regional traditions, determine the kind of production a given farm specialises in.

In central, eastern and northern Poland, potatoes, rye and grassland prevail. Orchards and berry plantations are located mainly in Mazovia (region of Grójec), in Lubelskie Voivodeship, as well as in Sandomierz region, in Greater Poland and in Łódzkie Voivodeship. Cultivation of plants with higher soil and climatic requirements is concentrated in the south-eastern and western part of the country, as well as in Żuławy and Warmia. Cultivation of intensive cereals, mainly wheat, as well as of sugar beet and rape, predominates on these areas.

Cattle breeding is mostly concentrated in Podlaskie, Mazowieckie, Warmińsko-Mazurskie and Wielkopolskie Voivodeships whereas the majority of pigs are bred in Wielkopolskie and Kujawsko-Pomorskie Voivodeships. Sheep breeding is more intense only in the mountainous regions (Małopolskie Voivodeship).

Production of some agricultural products	Share		Place	
	in the world	in the EU	in the world	in the EU
- wheat	1,4	6,9	15	4
- rye	20,4	41,0	3	1
- potatoes	2,9	18,4	7	1
- sugar beet	4,8	11,0	6	3
- rape	4,0	11,6	6	3
- apples	3,7	9,9	3	4
- meat	1,3	7,9	16	5
- cow's milk	2,1	8,2	10	4
<b>Stock:</b>				
- cattle	0,4	6,3	45	7
- pigs	1,5	11,2	10	3

Table Share and place of Polish agriculture in the world and in the EU (27 states). Source: Statistical Yearbook of Agriculture, Central Statistical Office (GUS) 2011, Data from 2009.

## Land resources and the structure of their utilisation

In the total area of Poland, which is 31.3 million ha, the surface area of agricultural land is 15.4 million ha, which constitutes 49.4% of the total area of the country (as of June). In 2011, no significant changes were observed in the total area or the use of agricultural land owned by agricultural holdings. In 2011, 14.9 million ha, i.e. 97.1% of agricultural land belonged to the private sector; 3.9 million ha, i.e. ca. 90% of agricultural land in the country was used by private holdings of the area exceeding 1 ha. The rest of agricultural land was held by the public sector.

In 2011, the total area of farmland in good condition amounted to 14.8 million ha, that is 95.7% of the total area of agricultural land. In comparison to 2010, the total area of farmland in good agricultural condition increased by 177 thousand ha.

In the total area of farmland in good agricultural condition (14.8 million ha – 100%) – cultivated land accounted for 68.5%, orchards of the total area of 390.0 thousand ha - for 2.5%, permanent meadows of the total area of 2,5 million ha - for 16.8%, and permanent pastures of the area of 0.7 million ha - for 4,5%.

The quality of agricultural land in Poland is poor, poorer than the average in the EU. The high percentage of poor and acidified soils limits the agricultural usefulness of agricultural land. The share of light soils, which in Poland are characterised by a high sand content, is two times higher in Poland than the EU average, and it amounts to 60.8% of agricultural land, in the EU it is 31.8%.

Soil valuation indicator, which is a quotient of conversion hectares to physical farmland, is 0.82 in Poland. Unfavourable soil conditions, accompanied by poor climatic conditions, result in a lower land



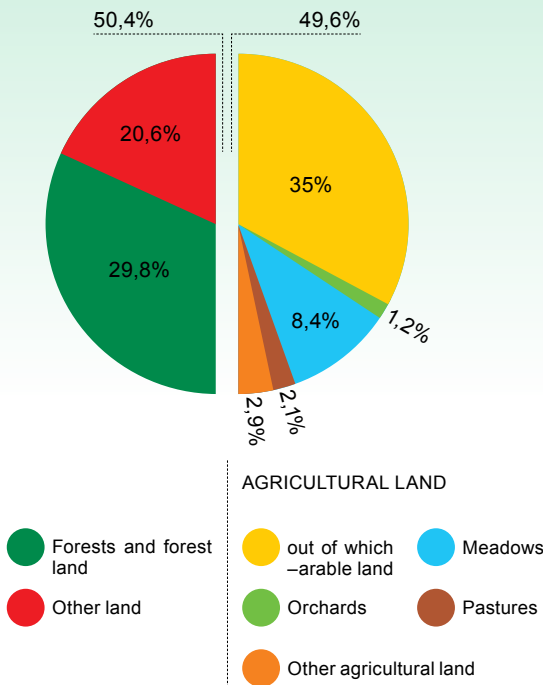


Fig. Structure of utilisation of land in 2011 (in % of total area).  
Source: *Statistical Yearbook of Agriculture, Central Statistical Office (GUS), Warsaw 2011.*

productivity, as compared to the EU average. Since the accession of Poland to the EU, the area of fallow land as a share of arable land has been decreasing. In 2009, the area of fallow land amounted to 498 thousand ha, and was three times lower than in 2004. In private holdings, the area of fallow land was reduced over 2.5 times. In 2011, the area of fallow land as a share of agriculturally utilised area in good agricultural condition amounted to 468 thousand ha, out of which 409 thousand ha belonged to private holdings. This downward trend was due to the application of direct payments per hectare used for agricultural purposes and from the increase of prices of agricultural land.

The Agricultural Census carried out in 2010 confirmed the trends in Polish agriculture observed recently, in particular since the accession. Compared to the results of Agricultural Census of 2002, the following major changes have been observed:

- the number of agricultural holdings keeps decreasing while their area is increasing;
- the structure of agricultural holdings has changed significantly - the number of smallest farms (0 – 5 ha of agriculturally utilised area) has decreased by almost 25%, and the number of farms with the area of 5 – 20 ha has decreased by 17%; the number of agricultural holdings of 20 – 50 ha in area has remained unchanged. These changes have been accompanied by a significant - 34% - increase in the number of largest holdings, of 50 ha and over in size. The pace of these changes is so slow that the percentage of agricultural holdings of 15 ha and over is a mere 9%, whereas the percentage of holdings of 0 – 5 ha remains high, amounting to 70%;

- the model of multi-functional holding is gaining popularity slowly yet steadily, in particular among small farms, which undertake non-agricultural activity and give up - partially or fully - agricultural activity;
- the total agricultural acreage has decreased (by 1.1 million ha, i.e. by 5%) compared to 2002, since some of the farm land has been allotted for non-agricultural purposes, for example for infrastructural purposes, also the area of agricultural land has decreased (from 16.9 to 15.5 million ha);
- the cropped area has decreased slightly (by 0.2 million ha, compared to 2002), and at the same time changes in the structure of crops have been recorded - the area under cereals decreased (by 12%), same as under potatoes (by 51.8%) and sugar beets (by almost 32%), whereas the crops of rape increased by (115%) as well as of the crops of turnip rape;

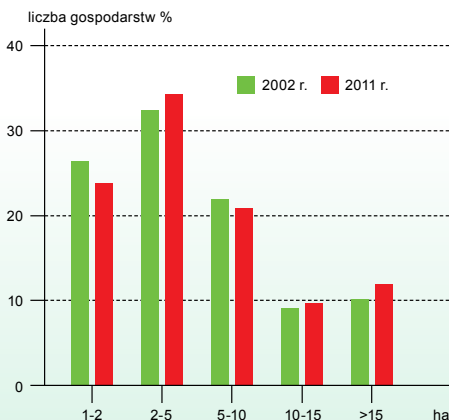


Fig. Structure of individual farms by area groups of agricultural holdings of above 1 ha, divided by area groups of agricultural land.

- the total number of cattle has increased, whereas the population of cows has dropped. This trend has been caused by a growing interest in the production of slaughter cattle after the accession of Poland to the EU and by increased profitability of such production. The decrease in the population of cows has resulted from the milk quota after the accession, and from the high quality requirements for cow milk;
- agricultural holdings are better equipped in the means of production, thus showing that the process of modernisation of agriculture after the EU accession continues (the indisputable impact of the instruments of Common Agricultural Policy).

The evolutionary nature of processes taking place in agriculture has been confirmed by data for 2011 - compared to 2010 - no significant changes have been recorded in the structure of agricultural holdings in terms of their size and area utilised by them. The changes were slight, not exceeding 0.5%. Individual agricultural holdings of the ac-

reage exceeding 1 ha of agricultural land hold 13,7 million ha of land. Holdings comprising of between 2 and 5 ha of arable land were the most numerous group among all holdings (34.1%). The share of holdings of a bigger area, i.e. 10 – 15 ha and over 15 ha, was 9.6% i 11.9% respectively. Compared to 2002, the acerage of agricultural holdings decreased by 1.4 million ha, i.e. by 8.1%. In 2002, the most notable decrease was noted in the group of holdings of up to 1 ha and of 1 - 5 ha of agricultural land, where the number of holdings dropped by 26.8% and 24.8%, respectively. The share of the smallest holdings in the total area of agricultural holdings decreased – in the group of holdings of up to 1 ha – form 33.3% in 2002 to 31.4% in 2010, and in the group of holdings of 1 – 5 ha from 39.1% to 37.9%, respectively. In 2010, compared to 2009, a drop in the number of agricultural holdings of 1 – 10 ha was observed (by 43.7 thousand), whereas the number of holdings with the area exceeding 10 ha increased (by 2. thousand). In 2009, the average area of individual agricultural holdings increased by 0.2 ha, this increased being a result of the growth of area in holdings over 15 ha (by 0.8%). Holdings comprising over 15 ha have a predominant share in agricultural land utilised by individual farms, namely 48.4% (increase by 1.4%, compared to 2008). The average area of agricultural land per 1 individual holding amounted to 8.3 ha in 2011, whereas until 2008, it did not excdde 8 ha.

Since the EU integration, a growing demand for agricultural land has been observed, resulting in the growing prices of land. The growing number of transactions in land marketing differs regionally and is conditioned mainly by: supply, variable agrarian structure, economic power of agricultural holdings and diverse reasons for purchasing land. The relatively smallest turnover has been observed in southern and central Poland, where holdings are most fragmented, and where the custom of handing land over to the growing up children still predominates.

In 2011, the average price of agricultural land was PLN 20,004 per ha, and was 11% higher tha in 2010. The increase in prices was due to the lasting increase in profitability of agricultural production. The highest increase in prices was recorded in 2007 (by 33%); in 2008 and 2009 the corresponding figures were 28% i19%, respectively. Like in the previous years, the prices differed considerably, depending on the location of the land, its classification class, its quality and suitability for a given type of cultivation.

The Agricultural Property Agency sold 30% more land in 2011 than a year before. This was the best result obtained in the past 30 years. The 125 thousand ha of land was purchased mainly by farmers. The growth in demand was largely caused by the buying-in prices of agricultural products, which in the past 2 years have been favourable for farmers, as well as by preferential loans with interest rate subsidy, and also by the possibility to buy land on instalments, offered by the Agricultural Property Agency.

Voivodeship	Total	Good (class I, II, IIIa)	Medium (class III b, IV)	Poor (class (V, VI)
Poland	20 004	23 911	20 808	16 401
Dolnośląskie	20 055	24 683	20 641	15 683
Kujawsko-pomorskie	28 226	33 633	229 863	222 377
Lubelskie	14 491	19 477	14 629	10 485
Mazowiecki	22 168	29 903	22 969	17 756
Opolskie	21 068	29 235	20 472	16 248
Podkarpackie	11 019	12 974	10 910	8 880
Podlaskie	21 544	25 897	23 520	18 006
Śląskie	22 864	28 878	23 240	16 999
Świętokrzyskie	11 063	14 925	10 938	7 641
Wielkopolskie	30 580	38 900	32 922	23 885
Zachodniopomorskie	15 162	17 251	15 587	12 576

Table Sales prices of agricultural land in 2011, in private turnover in selected voivodeships (PLN/ha). Source: Central Statistical Office (GUS) Statistical Yearbook of Agriculture 2011, Warsaw 2011.

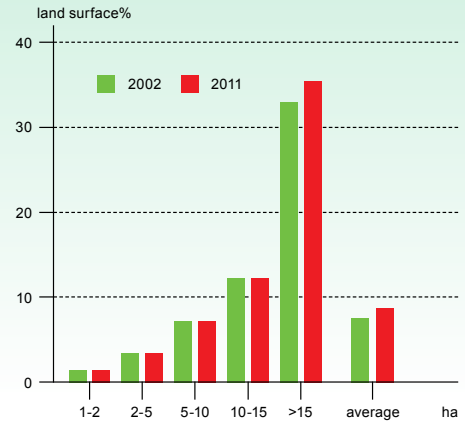


Fig. Average area of agricultural land per holding in 2002 and 2010. Source: Agriculture in 2011, Central Statistical Office (GUS), Warsaw.

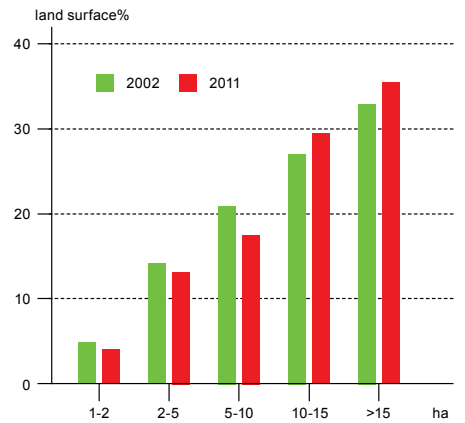


Table Percentage of agricultural land in individual holdings in 2002 and 2011. Source: Agriculture in 2011, Central Statistical Office (GUS), Warsaw.

Rodzaj gruntu	Price per 1 ha			
	rok	in PLN	in dt rye	slaughter livestock of pigs
Arable land	2000	4786	115,3	13,3
	2005	8244	237,8	21,1
	2010	18037	371,3	47,1
fertile (wheat and beetroots)	2000	6712	161,7	18,6
	2005	11001	317,3	28,1
	2010	18841	387,8	49,2
Medium (rye and potato)	2000	4920	118,5	13,7
	2005	8603	248,1	22,0
	2010	18841	387,8	49,2
Barren (sandy)	2000	2725	65,6	7,6
	2005	5843	168,5	14,9
	2010	14800	304,7	38,6
Meadows good	2000	4883	117,6	13,6
	2005	6144	177,2	15,7
	2010	14612	300,8	38,2
Meadows Poor	2000	2753	66,3	7,6
	2005	4003	115,5	10,2
	2010	11291	232,4	29,5

Table Average prices of arable land and meadows in private trade. Source: Central statistical Office (GUS) Statistical Yearbook of Agriculture 2011, Warsaw 2011.

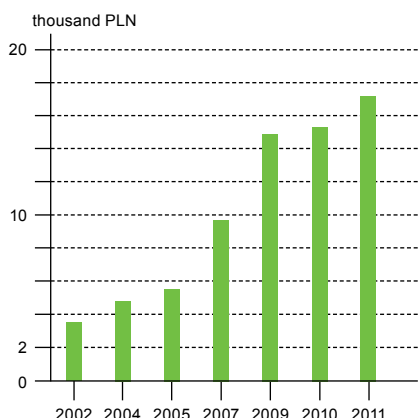


Fig. Sales prices of agricultural property by Agricultural Property Agency, in PLN/ha, in the years 2002 – 2011. Source: Agricultural Property Agency.

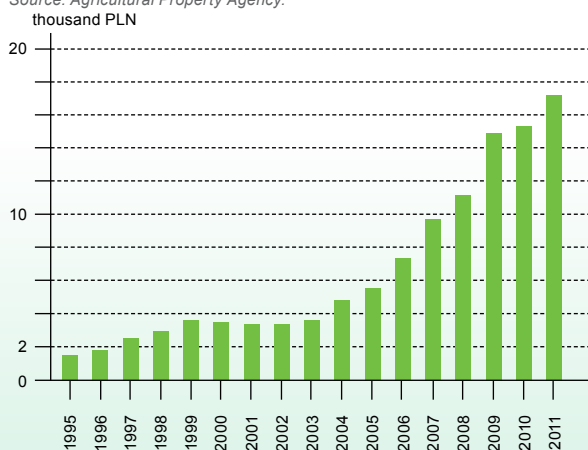


Fig. Sales prices of agricultural property by Agricultural Property Agency, in PLN/ha, in the years 1992-2011. Source: Central Statistical Office (GUS) Statistical Yearbook of Agriculture 2011, Warsaw 2011.

## Factors shaping agricultural production and economy in 2011

Agricultural production and economy in 2011 were determined primarily by:

- a rise in prices of cereals, which began at the end of the first half of 2010 and lasted practically until the end of the 2010/2011 season. The drops in prices in the second half of 2011 did not have any significant impact on the very high prices of cereals. In 2011, the price of wheat at collection points was 81.99 PLN/dt on average (an increase of 37%, compared to 2010), while that of rye was 74.24 PLN/dt (an increase of 76%, compared to 2010).. High increases in prices were also recorded in trading at marketplaces (wheat – by 47%, rye – by 62%, compared to the previous year),
- the upward trend demonstrated by the prices of pigs, with an increased national supply of pork livestock, as compared to the previous year In 2011,

average purchase prices per 1 kg of livestock oscillated around PLN 4.52 at collection points and around PLN 4.63 at marketplaces (an increase of over 16% and of about 21%, respectively, compared to 2010).. However, the price relations of pigs and rye were below the level of profitability, which had a negative effect, deepening the downward trends in the stock of pigs,

- increasing average purchase prices and market prices of cattle livestock and young slaughter cattle, compared to the previous year (by 15% and 14%, respectively),
- the fact that in 2011, despite the increase in national supply of poultry livestock, the average price of slaughter poultry increased by over 18%, reaching PLN 4.08 per 1 kg,
- prices of milk, which were also higher (by 14%) than in 2010.

After the dramatic economic downturn in 2008, the production profitability has been gradually improving over subsequent years. In 2011, with a high increase in prices of agricultural products sold by individual holdings (by 18.8%) and a clearly higher growth

rate of prices of goods purchased by farmers for production and investment purposes (by 10.7%), the index of price relations amounted to 107.3%, compared to 110.2% in 2010. In 2011, although the income situation of farmers worsened slightly, it remained positive, just as in 2010.

### Providing agricultural sector with means of production

Application of fertilizers plays a key role in maintaining an appropriate production potential of soil and in ensuring heavy, high-quality arable crops. On the other hand, mineral fertilizers are an important component of the cost structure of harvesting agricultural plants, which significantly limits their application.

After a downturn trend in the prices of mineral fertilizers, which lasted over a year, starting in 2010, the prices of these means of production have again begun to rise, at an ever higher growth rate. In 2011, the prices of mineral fertilizers rose by 19.6% on average, while in 2010 they decreased by 10.6%.

The increase in prices of mineral fertilizers can be attributed, first of all, to the higher demand on the domestic market, resulting from an improved profitability of the production of cereals and of oil plants as well as from a dynamic increase in prices of raw materials used in the production of mineral fertilizers and of energy carriers.

The prices of mineral fertilizers grew, but their increase was lower, compared to the prices of cereals and of other agricultural raw materials. In 2011, the price of 1 kg of NPK corresponded to that of 4.7 kg of wheat, 5.2 kg of rye and 10.8 kg of potatoes. In turn, in 2010, the conversion factors were 5.7 kg of wheat, 8.3 kg of rye and 9.4 kg of potatoes, respectively. The ratio of the prices of calcium fertilizers to the prices of agricultural products also improved. In 2011, the price of 1 kg of CaO corresponded to that of 1.7 kg of wheat, 1.8 kg of rye and 3.8 kg of potatoes, while in 2010 these indicators were 2.2 kg of wheat, 3.2 kg of rye and 3.7 kg of potatoes, respectively.

The consumption of mineral fertilizers (NPK) for crops in 2011 amounted to a total of 1954.4 thousand tonnes, and was higher by 9.9% than in the preceding year. An increase in the use of fertilizers was observed in all groups of fertilizers: nitric (N) of 6.2%, phosphorous (P<sub>2</sub>O<sub>5</sub>) of 15.7% and potassic (K<sub>2</sub>O) of 14.5%.

Improved relation of the prices of fertilizers to those of cereals and other products, as well as an increase in direct payments, resulted in an increase in the individual consumption of mineral fertilizers; their use for crops in 2011 amounted to 126.4 kg of NPK per 1 ha of farmland on average, and was higher by 10.2% than in the preceding year. The relation of N:P:K in fertilizers in marketing year 2010/2011 remained at last year's level, i.e. 1.0:0.4:0.4.

In addition, the level of use of fertilizers was still visibly different in individual voivodeships, ranging from 232.4 kg of NPK per 1 ha in Opolskie Voivodeship to 67.7 kg of NPK per 1 ha in Podkarpackie Voivodeship. As in the previous year, in 12 voivodeships the use of fertilizers exceeded 100 kg of NPK per 1 ha.

In the 2010/2011 marketing year, the consumption of NPK mineral fertilizers was over three times as higher than that of CaO calcium fertilizers.

In 2011, the consumption of calcium fertilizers for crops amounted to only 568.3 thousand tonnes of CaO, i.e. 23.1 thousand less than in the preceding year, which equals 36.8 kg per 1 ha of farmland and is 5.2% lower than in the previous year. The liming of soil differed from one voivodeship to another, ranging from 104.8 kg per 1 ha of farmland in good agricultural and environmental condition in Opolskie Voivodeship to 4.5 kg per 1 ha of farmland in Świętokrzyskie Voivodeship.

In the EU countries, the improvement of economic situation on basic agricultural markets in 2010/2011 resulted in an increased demand for mineral fertilizers. The consumption of mineral fertilizers rose by nearly 11%, compared to 2009/2010. Fertilizer consumption in EU-15 rose by 13%, while in EU-12 it rose by mere 4%. The increased use of mineral fertilizers in the EU countries in 2010/2011 has resulted primarily from the increased use of phosphorous and potassic fertilizers. In 2010/11, the consumption of potassic fertilizers incre-

	2005/06	2007/08	2008/09	2009/10	2010/11
Mineral fertilisers NPK	123,3	132,6	117,9	114,7	126,4
including: nitric N	62,5	70,7	68,0	66,3	70,6
phosphorus P <sub>2</sub> O <sub>5</sub>	27,7	28,8	23,3	22,8	26,4
potassic K <sub>2</sub> O	33,1	33,3	26,6	25,6	29,4
calcium fertilizers CaO	54,8	38,5	32,9	38,1	36,8

Table Use of mineral and calcium fertilisers (in kg of NPK for 1 ha of farmland). Source: Institute of Agricultural and Food Economics, The Market of the Means of Production 2012.

	2009/10	2010/11
UE-27	14,7	16,2
UE-15	11,0	12,4
UE-12	3,7	3,8
POLAND	1,8	2,0

Table Consumption of mineral fertilizers in the EU (million tonnes of NPK). Source: Data of the Institute of Agricultural and Food Economics, 2012.

ased by over 20%, while that of phosphorous fertilizers - by 12%. The growing consumption of these groups of mineral fertilizers observed in recent years results from the increase in the use of fertilizers after a drastic drop in 2008/09. On the other hand, in 2010/11, the consumption of nitric fertilizers increased by less than 8%. The average use of mineral fertilizers in 2009/10 in EU-27 increased by 9% - to 87 kg of NPK per 1 ha of farmland, and in EU-15 it increased by 13% - to 95 kg of NPK per 1 ha of farmland, whereas in EU-12 it increased by 1% - to 73 kg of NPK per 1 ha of farmland. For many years, the highest individual consumption of mineral fertilizers has been recorded in Benelux countries, amounting to over 170 kg of pure NPK per 1 ha of farmland.

## The value of agricultural production and price relations

In 2011, the value of global agricultural production in current prices reached the level of PLN 99.7 billion; the value of plant production amounted to PLN 55.8 billion and that of animal production – to PLN 44 billion. Compared to 2010, global production dynamics in fixed prices increased by 1.1%, in individual holdings it increased by 2.7%. Compared to 2010, in 2011 plant production (fixed prices) increased by 3.8%, while animal production decreased (by 2.1%). The decrease in animal production can in particular be attributed to a drastic decrease in the number of livestock, particularly pigs. Compared to the previous year, commercial agricultural production in fixed prices increased by 2.2%, whereas in individual holdings it increased by 5.2%. Compared to the previous year, plant production increased by 4.7%, and animal production - by 0.3%.

Since 2000 (with the exception of 2007), a gradual increase in the share of commodity production in the global production has been observed. In 2011, the share in the global production of commodity production in agriculture as a whole and in individual holdings also increased, though slightly (by 0.2 pp and 1.0 pp, respectively).

In 2011, commodity production accounted for 70.5% of the value of global production, while the share of plant production in the structure of agricultural production increased by 1.8 pp, and the share of animal production decreased, which resulted mainly from the decrease in commercial production of cow milk, eggs and pigs.

	2009	2010	2011
Global production	102,4	97,9	101,1
- of which individual holdings	102,3	98,6	102,7
Commodity production	103,1	99,5	102,2
- of which individual holdings	109,0	100,2	105,2

Table Comparison of agricultural production dynamics in the years 2009 - 2011 (fixed prices). Source: *Agriculture in 2011, Central Statistical Office, 2011.*

Significant fluctuations in the dynamics of plant and animal production over the years result, above all, from the variability of weather conditions, which influence the volume of yields and crops and, in consequence, results in reduced feed reserves and their increased prices. This, in turn, affects the volume of animal production.

	2004	2005	2006	2007	2008	2009	2010	2011
Total global production	107,5	95,7	98,8	105,9	103,2	102,4	97,3	101,1
- plant production	116,7	88,1	94,8	108,9	108,3	103,0	90,6	103,8
- animal production	97,3	105,2	102,6	102,9	97,1	101,6	105,0	97,9
Total commercial production	103,3	95,4	104,2	101,5	106,2	103,9	98,4	102,2
- plant production	112,2	87,0	103,7	99,3	111,3	107,9	89,0	104,7
- animal production	97,5	102,1	104,6	103,1	102,4	100,6	106,1	100,3
Share of commercial production in global production	66,3	67,7	70,5	64,4	67,7	71,2	70,3	70,5

Table Dynamics of global and commodity agricultural production in fixed prices (previous year = 100). Source: *Central Statistical Office, Agriculture in 2011.*

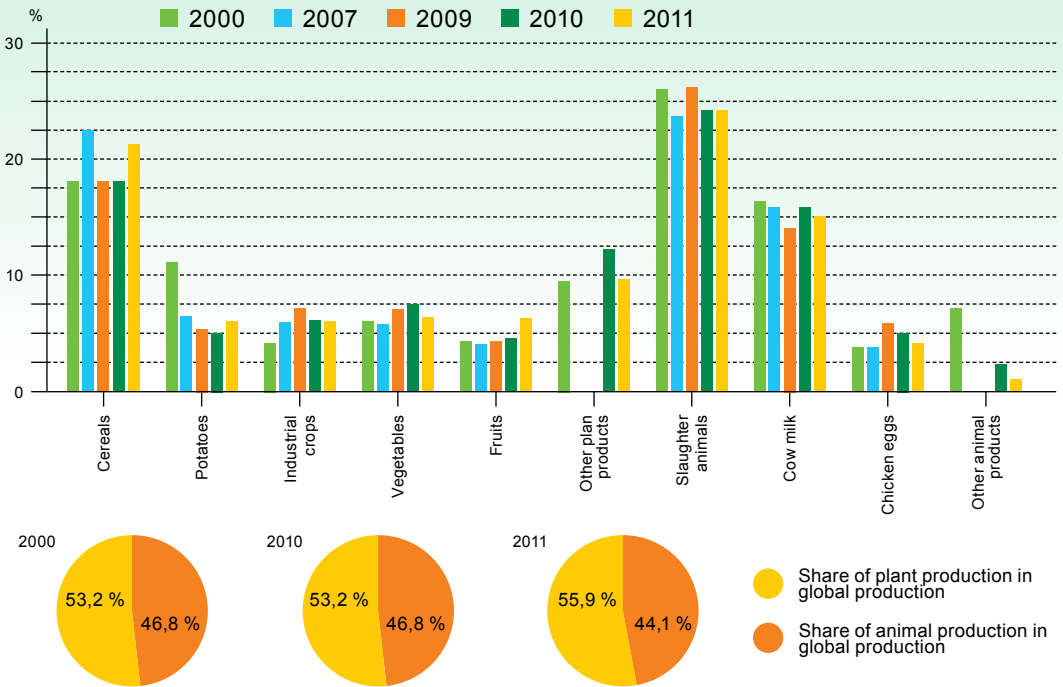


Fig. Structure of global agricultural production in 2000, 2007 and 2009–2011 (in %). Source: *Agriculture in 2011*, Central Statistical Office, Warsaw 2011.

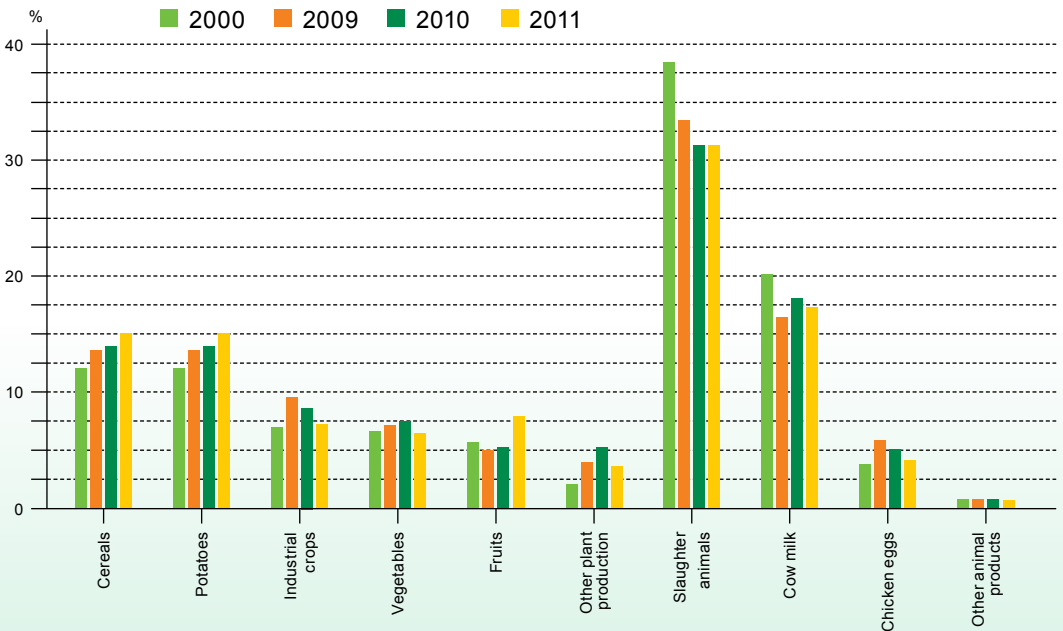


Fig. Structure of commercial agricultural production in 2000, 2007 and 2009–2011 (in % – current prices). Source: *Central Statistical Office, Agriculture in 2011*.

In 2011, the situation in agriculture was mainly impacted by the decreased cereal crops, aggravating decrease in pig stock, and reduction of the dynamics of poultry production. The volume of production as well as the trends on global markets were affected by high national prices of agricultural products. Compared to the previous year, cereal crops decreased both worldwide and in Poland (in Poland by 1.7%, i.e. to the level of 26.8 million tonnes). Due to unfavourable conditions during harvest, the cereals were of poorer quality than in 2010. Cereal shortage in national production resulted in very high prices of cereals throughout 2011. An increase in the prices of pork livestock, coupled with very high prices of cereals and feedstuff, did not improve the economic situation on the market of pigs. With a high increase in poultry meat supply, the prices of poultry remained higher than in 2010. A significant increase in the prices of slaughter cattle and of milk was also observed. A dynamic increase in the prices of agricultural products sold by farmers compensated, to some extent, the higher than in 2010 increase in retail prices of the means of agricultural production, and again resulted in an improvement of agricultural and environmental conditions of agricultural production.

	2004	2005	2009	2010	2011	2011/2005
TOTAL of which purchase	122,5	97,3	97,2	107,0	115,9	140,6
	114,4	97,1	96,2	105,2	119,5	133,7
Plant production	124,0	93,9	90,1	119,2	117,8	164,3
Animal production	121,1	99,4	103,4	98,7	114,2	126,8

After two years (2008 and 2009) when the structure of prices was unfavourable for farmers, in 2011, as in 2010, the price growth rate of agricultural products sold by farmers (118.8%) was higher than that of the goods and services that they purchased (109.7%). The price scissors amounted to 108.3, compared to 110.1 in 2010, and 96.0 in 2009.

Table Price indicators of commercial agricultural production (previous year = 100). Source: Central Statistical Office, *Agriculture in 2011*.

	2000	2004	2005	2007	2008	2009	2010	2011
Prices of agricultural products sold in total	114,7	111,4	97,9	114,5	101,2	97,9	112,1	118,8
- plan products	107,4	93,1	94,8	125,1	94,8	88,7	129,2	124,5
- animal products	118,8	122,3	99,7	106,4	104,9	103,7	102,0	115,3
Prices of goods and services purchased	111,4	108,6	102,0	106,3	111,2	102,0	101,8	109,7
Index of price relations ("price scissors") of the products sold to prices of goods and services purchased	103,0	102,6	96,0	107,7	91,0	96,0	110,1	108,3

Table Price relations of agricultural products to the prices of goods and services purchased by agricultural holdings. Source: *Agriculture in 2011*, Central Statistical Office.



## AGRICULTURE IN INDIVIDUAL REGIONS

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

The wear and tear on industrial means of production is also diversified, which determines the intensity of agricultural production. The highest yields are obtained in 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, as well as less intensive fertilisation and subsistence farming in a significant number of agricultural holdings.

In 2011, the production performance indicates that there is a considerable territorial diversification of the structure of crops. According to the territorial breakdown, the following voivodeships have the biggest share in the national sown area: Wielkopolskie Voivodeship – 13.9%, Mazowieckie Voivodeship – 11.2% and Lubelskie Voivodeship – 10.0%. For several years, these voivodeships have had the biggest share in the overall national area of cereal sowings. Voivodeships with the smallest share of the area of cereal sowings were: Lubuskie, Małopolskie and Podkarpackie – 3.0%, 2.9% and 2.8%, respectively.

Concentration of livestock production is also subject to regional differences. Traditionally, the largest bovine population is observed in Mazowieckie Voivodeship (17.6%), Podlaskie Voivodeship (16.2%), and Wielkopolskie Voivodeship (14.9%). The highest number of cows was also recorded in the above mentioned voivodeships, and their share in total population of cows in Poland was 20.1%, 17.4% and 11.3%, respectively.

Compared with results of National Agricultural Census, in 2011 the percentage of the basic herd of cows clearly decreased (by 5.9 pp), of which the percentage of milk cows dropped by 7.9 pp. The share in the cattle structure of other groups of cattle increased, and above all of young cattle of up to 2 years old. The structure of bovine herd in 2011 indicated a reduction of milk cow population, which to a large extent results from milk quotas and strict quality requirements. The number of holdings with milk cows was almost two times smaller than in 2002.

The largest stocks of pigs are bred in Wielkopolskie, Kujawsko-Pomorskie and Mazowieckie Voivodeships. The stocks of pigs recorded in 2011 show that since 2002 the number of pigs plummeted (by about 3 million pigs). Over the last 9 years, numerous farmers gave up the production of pork livestock due to considerable fluctuations in profitability. In 2011, there were 301 thousand entities keeping pigs, compared to 761 thousand in 2002.

	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 t	Calcium fertilizers in thousand t
Poland	34,3	232	1954,4	568,3
Dolnośląskie	45,6	261	152,0	52,0
Kujawsko-Pomorskie	37,8	235	177,9	63,7
Lubelskie	31,1	238	167,6	58,6
Lubuskie	28,0	222	57,1	15,7
Łódzkie	31,9	261	134,8	28,9
Małopolskie	34,9	205	49,1	8,6
Mazowieckie	26,9	210	206,4	49,2
Opolskie	56,0	310	119,2	53,3
Podkarpackie	31,9	198	41,0	6,9
Podlaskie	26,3	202	100,9	15,4
Pomorskie	35,1	249	103,0	36,3
Śląskie	38,1	226	53,1	13,1
Świętokrzyskie	26,7	201	47,9	2,2
Warmińsko-mazurskie	35,5	211	126,6	38,2
Wielkopolskie	34,9	254	308,0	73,0
Zachodniopomorskie	35,3	254	109,8	51,2

Table Yields of cereals and potatoes compared with the intensity of mineral and organic fertilisation in 2011. Source: Agriculture in 2011r, Central Statistical Office.

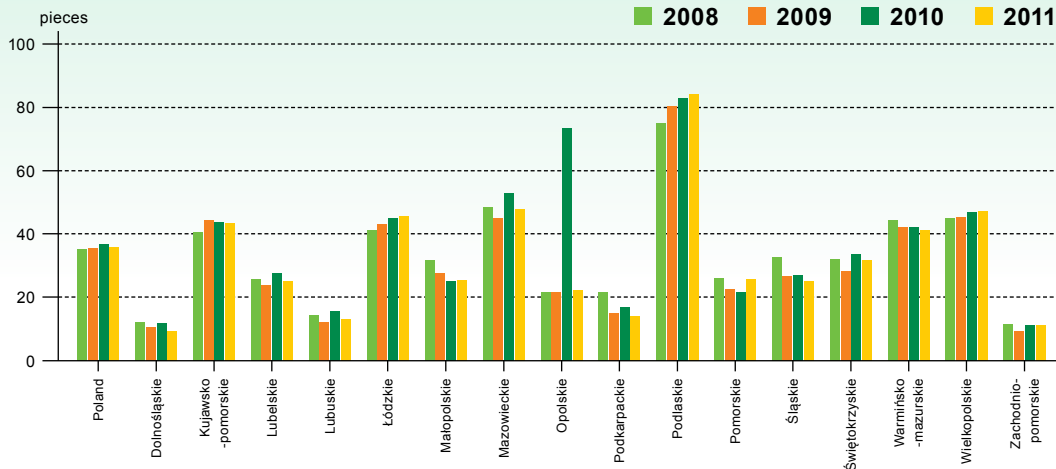
	Total	Cereals	Potatoes	Sugar beet	Rape and turnip rape
Polska	100,0	100,0	100,0	100,0	100,0
Dolnośląskie	6,8	5,8	5,9	9,2	15,1
Kujawsko-Pomorskie	8,5	7,8	4,9	18,5	12,7
Lubelskie	10,0	10,9	9,1	15,3	4,8
Lubuskie	3,1	3,0	2,1	1,0	4,7
Łódzkie	7,1	7,9	11,4	3,5	2,1
Małopolskie	3,1	2,9	8,1	0,5	0,5
Mazowieckie	11,2	11,6	13,2	6,2	6,3
Opolskie	4,4	3,9	2,3	7,4	10,5
Podkarpackie	3,1	2,8	8,0	1,8	2,0
Podlaskie	5,7	6,3	4,4	0,4	0,8
Pomorskie	5,4	5,4	5,9	5,0	7,2
Śląskie	2,6	2,8	3,2	1,1	1,9
Świętokrzyskie	3,1	3,2	5,3	2,2	0,6
Warmińsko-mazurskie	6,2	5,9	2,5	1,4	7,2
Wielkopolskie	13,9	13,9	10,3	20,9	15,4
Zachodniopomorskie	5,6	5,9	3,4	5,8	8,4

Table Sown area in 2011 broken down into voivodeships – in %. Source: Agriculture in 2011r, Central Statistical Office.



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

## Cattle



## Pigs

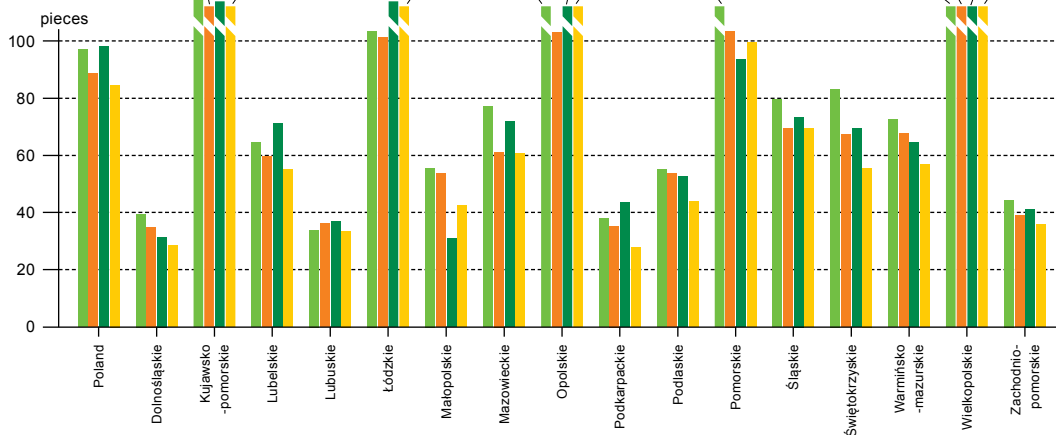


Fig. Stock of cattle, cows and pigs per 100 ha of farmland in 2008–2011 (number of animals), broken down by voivodeships. Source: Agriculture in 2011, Central Statistical Office, and the results of Agricultural Census 2010.

\* - The data on the stock of cattle as at June, while the data on the stock of pigs as at March.

## PLANT PRODUCTION, SELECTED MARKETS AND PROCESSING SECTORS

In 2011, the total area of crop sowings amounted to 10.6 million ha, and was by 148.3 thousand ha (by 1.4%) larger than a year ago. As compared to the preceding year, the total area of cereal sowings increased by 2.2% (to 7.8 million ha), of which basic cereals and cereal mixtures – by 7.4 million ha, i.e. by 2.6%. An increased cultivation of spring wheat – by 26.2%, spring barley – by 8.7%, rye – by 2.1% and spring cereal mixtures – by 12.4% was observed. Compared to 2010, the area of spring triticale cultivation diminished – by 17.2%. The area of the cultivation of other cereals also diminished. The area of potato cultivation increase slightly – by 1.4%. The area of sugar beet cultivation diminished – by 1.4%, of rape and turnip rape – by 12.3%, of edible leguminous plants for grain – by 14.4%, and of forage leguminous plants – by 22%.

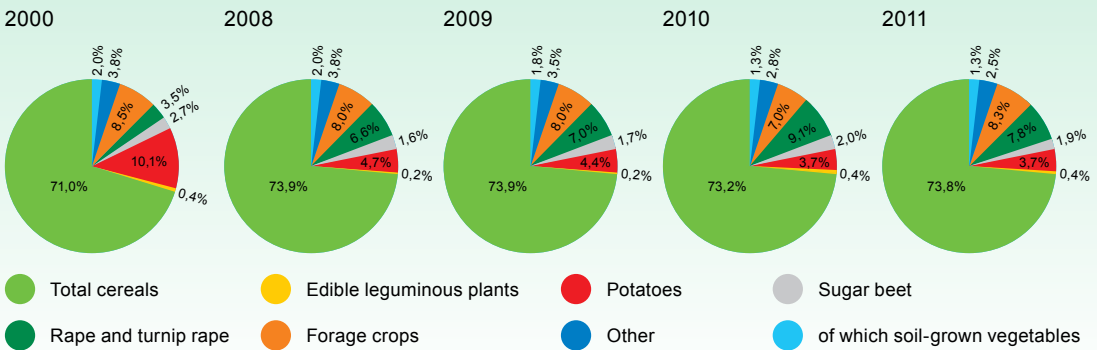


Fig. Structure of particular crop sowings in 2000, 2009, 2010 and 2011 (in %). Source: Central Statistical Office, Agriculture in 2011.

In 2011, the share of all cereal sowings in the overall sown area was 73.8%, an increase by 0.6%, compared to the previous year.

The Agricultural Census in 2010 shows that, compared to 2002, there was a significant decrease in:

- cereal sowings (including maize for grain) of 647 thousand ha, i.e. of 7.8%, with a decrease (of 4.6 pp) of their share in the overall sown area. The area for the cultivation of rye decreased in this period by 497 thousand ha, i.e. by 31.9%,
- potatoes - by 416 thousand ha, i.e. by 51.8%, and their share in the overall sown area - by 3.8 pp;

On the other hand, an increase was recorded in:

- industrial crops – by 41.5 thousand ha (an increase in the share in the sown area of 4.1 pp),
- forage plants including maize for pasture – by 338 thousand ha, i.e. by 60.1% (an increase in their share of 3.3 pp),
- other crops - of 115 thousand ha, i.e. of 37.9%.

Compared to the Agricultural Census in 2002, the Agricultural Census in 2010 also showed a significant decrease in the area of cultivation of spring wheat – by 193 thousand ha (by 42.6%), sugar beet – by 97 thousand ha, i.e. by 31.9%, soil-grown vegetables – by 32 thousand ha (by 18.6%). However, the area of triticale sowings increased by 386 thousand ha (40.9%), of maize for pasture – by 191 thousand ha, i.e. by 97.3%, of rape and turnip rape sowings – by 507 thousand ha (115.5%) and of forage plants – by 338 thousand ha (60.1%).

According to the data of Central Statistical Office, compared to 2010, in 2011 the area of intensive cereal sowings (wheat, barley, triticale) increased by 100.0 thousand ha, i.e. by 2.2%. Similarly, the area of extensive cereal sowings (rye, oats and cereal mixtures) increased by 90.0 thousand, i.e. by 3.3%. In 2011, the total number of agricultural holdings of over 1 ha growing agricultural and horticultural crops amounted to 1,308 thousand, i.e. 83.7% of the total number of agricultural holdings (in 2002 – 1,546 thousand, i.e. 79%).



In 2011, the increase in plant production resulted from an increase in the harvest of potatoes (of 11.3%), sugar beet (of 17.1%), soil-grown vegetables (of 14.7%), fruit from fruit-bearing trees (of 30.1%), and berries (of 0.9%). The total yields of cereals amounted to 34.1 dt per 1 ha, which is 3.7% less than in 2010. The decrease was recorded both in spring and in winter cereals. An average yield of rape and turnip rape was also lower than in the previous year (by 5.1%). Compared to the previous year, the yields of potatoes increased – by 19 dt per 1 ha, i.e. by 9.0%, and of sugar beet – by 91 dt per 1 ha, i.e. by 18.8%. Weather conditions, which were particularly favourable for soil-grown vegetables, contributed to a significant increase in the harvest of the latter – of 14.7%. Despite the fact that in Poland the vegetation conditions for fruit trees are very diversified, the overall production of fruit from fruit-bearing trees was high, and amounted to 2,884 thousand tonnes, which is 30% higher than in 2010.

Type of crop	2001-2005	2009	2010	2011	6:3	5:4	6:5
<b>Total cereals</b>							
A	8396,7	8 583,0	7638	7803	101,9	89,0	102,2
B	31,9	34,8	35,6	34,3	108,5	102,3	96,3
C	26 758,3	29827,0	27228	26767	111,5	91,3	98,3
<b>Total wheat</b>							
A	2375,6	2346,0	2142	2259	98,8	91,3	105,5
B	38,0	41,7	43,9	41,3	109,7	105,3	94,1
C	9 022,0	9790,0	9408	9339	108,5	96,1	99,3
<b>Rye</b>							
A	1601,0	1396,5	1063	1085	87,2	76,2	102,1
B	24,4	26,6	26,8	24,0	109,0	100,8	89,6
C	3 910,0	3713,0	2852	2601	95,0	76,8	91,2
<b>Total barley</b>							
A	1053,0	1157,0	974	1018	109,9	84,2	104,5
B	31,7	34,4	34,9	32,7	108,5	101,5	93,7
C	3 337,0	3984,0	3397	3326	119,4	85,3	97,9
<b>Oats</b>							
A	544,4	525,0	577	546	96,5	109,9	94,6
B	24,7	26,9	26,3	25,3	108,9	97,8	96,2
C	1 346,0	1,415,0	1516	1382	105,1	107,1	91,1
<b>Total triticale</b>							
A	1 004,4	1 465,0	1330	1269	145,9	90,8	95,4
B	32,2	35,7	34,4	33,4	110,9	96,4	97,1
C	3 237,0	5 234,0	4576	4235	161,7	87,4	92,6
<b>Potatoes</b>							
A	813,0	508,0	388	393	62,5	X	101,2
B	180,0	191,0	211	232	106,1	92,9	101,4
C	14 600,0	9 703,0	8188	9111	66,5	X	111,3
<b>Rape and turnip rape</b>							
A	479,4	810,0	946	830	169,1	116,8	87,7
B	24,6	30,8	23,6	22,4	125,2	76,6	94,9
C	1 178,0	2 497,0	2229	1862	211,9	89,3	83,5
<b>Sugar beet</b>							
A	298,0	200,0	206	204	67,1	103,2	98,6
B	411	543	483	22,2	132,1	89,0	118,6
C	12 236,0	10 849,0	9973	11674	88,7	91,9	117,1

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

Table Area, harvest and yield of main agricultural crops. Source: Agriculture in 2011, Central Statistical Office.

## SUPPORT PROGRAMME FOR HIGH-PROTEIN PLANTS

The initiative to support growing of protein plants was triggered by results of an analysis of and by the need for changes in the structure of agricultural crops, as well as by the current and the future objectives of the Common Agricultural Policy of the European Union. One of these objectives is to provide support in the application and use of the means of production in an effective way, ensuring that an optimal and good quality product is obtained with a minimum pollution to the environment. This ob-

jective can be achieved, inter alia, through crop diversification allowing for self-production of all the components of feedstuff used in animal production. Currently, both Poland and the whole European Union are dependant on the imports of soya cake, which is the main component of such feedstuff. Poland alone imports about 2 million tonnes a year of soya cake made from grain obtained from genetically modified plants (GMO). Substituting the imported soya cake with domestic protein plants will not only facilitate the above mentioned crop diversification, but will also contribute to the sustainable use of environmental resources and to climate change mitigation.

Addressing these expectations, the Ministry of Agriculture has taken measures aimed at increasing the use of domestic protein plants. These measures can be divided into two main areas:

1. specific support resulting from area payments for the area where leguminous and small-grained papilionaceous plants are grown, allocated directly to farmers; and
2. increasing the use of domestic protein raw materials in the feedstuff production, taking into account economic, nutritious and non-environmental aspects.

In 2010, specific support was introduced, and it will be granted only until 2013 under Article 68 of Council Regulation (EC) No 73/2009. It is addressed to farmers growing leguminous and small-grained papilionaceous plants as part of the main crops, and their mixtures throughout Poland. However, the support does not cover mixtures of leguminous and small-grained papilionaceous plants with cereals. The only exception is the vetch, for which a supporting plant can be used. The Programme covers such plant species as: broad bean, horse bean, chickpea, common bean, runner bean, pea, sugarsnap pea, lentil, soybean, white lupin, narrow-leafed lupin, European yellow lupine, field pea, seradella, vetch, red clover, white clover, alsike clover, persian clover, crimson clover, Lotus corniculatus, common sainfoin, alfalfa, lucerne (alfalfa), hop clover.

In 2012, the pool of funds allocated for the implementation of the specific area payment was increased from EUR 10.8 million to EUR 30 million. Data of the Agency for Restructuring and Modernisation of Agriculture show that the declared area covered in the submitted applications for support amounts to 208,168.06 ha, while the payment rate per 1 ha is PLN 591.41.

Another form of support is a subsidy for basic or certified seed, granted from funds available under the *de minimis* aid. Pursuant to the Ordinance of the Council of Ministers of 13 March 2007 on the list of arable crops whose basic or certified seed is eligible for a subsidy for basic or certified seed used for sowing or planting (Dz.U. of 2007, No 46, item 300), a subsidy of PLN 160 per 1 ha may be granted for such leguminous plants as lupine, pea, horse bean and vetch.

Additional payments may be granted also for growing certain high-protein and leguminous plants covered by Complementary National Direct Payments (CNDP) for the so-called "groups of main crops". This category includes inter alia such crops as: high-protein plants – broad bean, horse bean, sweet lupine and pea, but also leguminous plants – vetch, lentil and chickpea as well as forage leguminous plants. In 2012, the pool of funds allocated for this support amounted to EUR 690 million. For 2013, a complementary payment is also planned with a maximum level of support of up to EUR 570 million. This will be a so-called transitional payment granted under the national support, and functioning according to the rules of the existing (CNDP) payment.

Under the second area, since 2011 a multiannual R&D programme "Improvement of national sources, production, trading venue and the use in feedstuff of vegetable protein" is being implemented. According to the substantive assumptions, the Programme is to foster the interest in and the use of national varieties of leguminous plants in the feedstuff production. The implementation of the Programme is coordinated by the Soil Science and Plant Cultivation State Research Institute in Puławy. The Programme is mainly implemented by national scientific institutions.

The Programme is based on the following priorities:

1. Increased stability and quality of the yield of high-protein leguminous plants,
2. New trends in agricultural engineering for leguminous plants and methods of increasing crop profitability,
3. National sources of vegetable protein for the use in monogastric animal nutrition,
4. Economic conditions of the development of production, market infrastructure and trading system, as well as profitability of the use of leguminous plants for feedstuff purposes in Poland,
5. Production of high-quality feedstuff from permanent pasture.

## 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 on human health. Integrated production makes it possible to obtain agricultural produce of highest biological and nutritional value, which is also 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 have been delegated to the Main Inspectorate of Plant Health and Seed Inspection.

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

Agricultural producers interested in obtaining an official IP certificate should notify their 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 use in agricultural production only the methods approved by the Main Inspectorate of Plant Health and Seed Inspection, available on the website of the Main Inspectorate: <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 completing production, the producer applies for a certificate to the local inspection unit, competent for the crops location. The certificate is awarded when an inspection does not reveal any irregularities and the producer has filed the application for a certificate correctly, completed an IP training, carried out production according to the methodology approved by the Main Inspector, and has been correctly and regularly documenting the activities related to the integrated production in the Notebook.

The producers who have fulfilled the above conditions have the right to use the certificate and to label their products with the protected integrated protection mark.



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, benefiting 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 2,750 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 food quality schemes. The support consists in reimbursement of 70% of eligible costs, which were actually incurred for approved promotion activities.

The Integrated Production food quality schemes complies with the principles of integrated pest management, which will binding since 2014, as stipulated in the provision of Directive 2009/128/EC of

the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71). Pursuant to Article 14 of the said Directive, Member States of the European Union are obliged to impose on professional users of plant protection products the obligation to comply with principles of integrated pest management. In addition, the integrated pest management is defined as “careful consideration of all available plant protection methods and subsequent integration of appropriate measures that discourage the development of populations of harmful organisms and keep the use of plant protection products and other forms of intervention to levels that are economically and ecologically justified and reduce or minimise risks to human health and the environment”.

The implementation of the principles of integrated pest management and of integrated production fosters growth in the production of high-quality food while protecting natural resources, as proposed under sustainable development of agriculture and rural areas. Integrated pest management allows to keep the application of chemical plant protection products at the minimum level necessary, thus reducing the environmental pressure and protecting biodiversity of agricultural environment, and at the same time making it possible to obtain high-quality food which is safe for the consumer.

Therefore, the implementation of IP ensures the fulfilment of the requirement to introduce the principles of integrated pest management to the overall plant production, and of the requirements of the cross-compliance system under direct payments related to plant protection and food safety.

In 2011, the Main Inspectorate of Plant Health and Seed Inspection completed its eighth year of supervising the Integrated Production system. The applications for entry into the IP system were submitted by 2,274 agricultural producers and concerned 2,956 crops, which means that some producers declared that they cultivate more than one plant variety. The crop area reported to the IP system, as of 31 December 2011, amounted to 17,985 ha, of which 93.9% were fruit crops.

In 2011, the Inspectorate issued 1,482 certificates, of which 1,182 were issued to apple producers (79.8% of the certificates granted). Therefore, in 2011, compared to 2010, the number of certificates granted increased by 38.7%. The total number of certificates for fruit was 1,387 (93.6%) and for vegetables – 82 (5.5%). In addition, the year 2011 saw a record high in the crop areas covered by Integrated Production certification, as well as in the amount of agricultural produce for which certificates were issued.

	2004	2005	2006	2007	2008	2009	2010	2011
Number of IP certificates issued	811	1 557	1 891	1 915	1 174	838	1 068	1 482
Certified area (ha)	6 452	9 286	10 924	10 602	7 480	5 642	7 589	10 752
Certified production (t)	155 204	175 520	229 697	190 728	203 449	153 215	198 115	317 632

Table Integrated production in 2004–2011.

## Seed production market

Despite unfavourable weather conditions, in 2011 the production of seed material of agricultural plants increased. Data of the Main Inspectorate of Plant Health and Seed Inspection shows that, compared to 2010, the qualified area of seed plantations increased by 12.1% - from 92.5 thousand ha to 103.7 thousand ha.

Cereal plantations amounted to nearly 72 thousand ha, of which winter wheat seed plantations, amounting to about 25 thousand ha, accounted for the biggest share. The area of seed plantation of all cereal varieties increased by 24.2% on average. The biggest increase was recorded in the case of spring wheat seed plantation, by 62.6% (from 4.3 thousand ha to 7 thousand ha).

In 2011, although the area of potato seed plantations increased by 3%, it is too early to speak about a significant change in the production trend. The area of seed plantations has remained stable for several years at the level of approx. 5 thousand ha.

In 2011, the plantations of leguminous plant covered 7.7 thousand ha. After three years of increases of seed plantation are, a drop of 19% was recorded. In the structure of sowings, no major changes occurred; three species predominate, namely narrow-leafed lupin, pea, and European yellow lupine, whose total seed plantations account for over 90% of the area of leguminous crops for seed. In

2011, the sowings of each of these species decreased, while the horse bean sowings increased by 5%. The area of production of small-grained papilionaceous plants decreased by 13%, and amounted to 1.3 thousand ha. Among papilionaceous plants, the vast majority of seed production is taken up by red clover, whose plantations constitute 95% of the total area where small-grained papilionaceous plants area cultivated.

The area of grass seed production has been relatively stable, it amounts to 11.6 thousand ha. Two species predominate: perennial ryegrass (37.6%) and red fescue (20.6%). Italian ryegrass, Westerwold ryegrass, timothy 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 1,243. The number of cereal and oil plant varieties has increased. The number of leguminous varieties has decreased by 6.3%, and that of potato varieties - by 6.5%. In 2011, the share of foreign varieties in the Register exceeded 50%. The highest shares of foreign varieties in the Register were recorded for winter rape (90%), spring rape (82%), maize (75.3%) and sugar beet (69.7%) – the species dominated by hybrids. In the registers of the varieties of cereals, potatoes, leguminous plants, fodder beet and grass, national crop varieties prevail. The varieties entered into the Common Catalogue, not registered in Poland, are becoming increasingly important. In 2011, their share in the area of cereal seed plantations amounted to 24%.

In the season of 2010/11, there was a visible revival on the seed market. Sale of certified seed of agricultural plants increased by an average of 7%. The sale of seeds of nearly all the major species increased, with the exception of fodder beets. The sale of basic cereals amounted to 150 thousand tonnes and increased by over 9%, compared to the 2009/2010 season. The sale of certified seed potatoes amounted to 57 thousand tonnes and increased by over 10%, compared to the previous year. The share of certified seeds in total crops remained low. The highest amounts of certified seeds were recorded in growing spring wheat (15.4%) and winter barley (19.8%). In 2011, the share of certified seed potatoes was only 4.9%.



## Cereal market and cereal processing

Cereal production is a major branch of Polish agriculture. In terms of cultivated area, it ranks second in the European Union, while in terms of crops it ranks third, after France and Germany. The popularity of cereal production can be associated with their relatively simple cultivation technology, simple storage and selling, and, above all, to the possibility to use grain for feedstuff. Demand and supply on the cereal market are crucial for the whole food economy. The cereal sector determines, to a large extent, also the economic conditions of production on other markets, in particular on pork livestock market and on poultry market.

In the national cereal production, wheat and rye predominate. Mixtures of cereals and triticale, whose share is gradually increasing, account for a high share in the area of cereal sowings and harvest. Fluctuations in the volume of cereal harvest can be observed year on year, which results from changes in yields and diminished crop area and structure.

In the 2011/2012 season, the total of 26.8 million tonnes of cereals were harvested, i.e. 1.7% less than in the previous year and 1.5% below the average over 2005-2010. Due to high prices of cereals in 2011/2012, domestic consumption of cereals was estimated to have amounted to 26.8 million tonnes. The highest item of expenses was still the use of cereals as feed, which amounted to 16.1 million tonnes.

For years, domestic demand for cereals has

	2009/10	2010/11	2011/12	2012/13
Initial reserves	3,5	4,6	3,8	2,7
Crop area	8,5	8,4	7,7	7,3
Yields	3,50	3,6	3,46	3,38
Production	29,7	27,0	26,6	24,8
Imports	2,0	2,2	1,6	2,0
Total resources	35,3	33,9	32,0	29,6
Domestic use	28,0	28,1	27,4	26,8
including: - consumption	5,2	5,1	5,1	5,1
- industrial use	2,9	2,9	3,0	2,8
- fattening	16,3	17,2	16,4	16,1
Exports	2,7	2,0	1,9	1,3
Final reserve	4,6	3,8	2,7	1,5

The total cereals balance in the years 2009/2010 - 2012/2013 (million tonnes). Source: *Institute of Agricultural and Food Economics – Cereal Market 2012*.

been fluctuating between 26-28 million tonnes. The main factors influencing the changes in domestic consumption of cereals in particular marketing years are cyclical fluctuations in the number of pigs and increasing poultry production. Consumption of cereals, which used to be stable not long, in recent years has developed a downward trend. On the other hand, industrial consumption of grain is systematically increasing, even though its share in the total cereals production remains slight. The use of grain for sowing also remains stable. Fattening plays the dominant role in domestic consumption. Every year, an average of 16-18 million tonnes of cereal is used as feed. 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. Since 2005, the use of cereals for consumption has been steadily decreasing, which results, inter alia, from changing eating habits and declining population. For several years, gradual increase in cereal processing has been observed in brewing and distilling industries. The predicted development of the biofuel market should also stimulate further increase in cereals consumption and a further increase in its share in domestic consumption.

According to the estimates of the Central Statistical Office as of June 2012, in Poland in 2012 the sown area of basic cereals and cereal mixtures amounted to about 7.2 million ha. At the beginning of the 2012/2013 season, the domestic cereal reserve amounted close to 3.9 million tonnes, compared to 4.5 million tonnes in the previous year. Under the average weather conditions, the crops of cereals in 2012 are expected to range from 22.8 to 23.5 million tonnes, which is 6%–3% less than last year's crops. In the 2012/2013 season, domestic demand for cereals may amount to 26.8 million tonnes.

The turnover of Polish foreign trade is determined mainly by the volume of domestic harvest, but also by the prices on the markets of other countries, by exchange rates and by transport costs. Polish cereals are characterised by good quality and high technological usefulness in terms of milling and baking. In addition, they fulfil health safety requirements, and thus are sought after by foreign customers.





## Cereal processing

For several years, a standstill in the primary cereal processing has been observed. This can mainly be attributed to a high increase in the prices of cereals. In 2011, the production of wheat flours decreased by 1.8%, compared to the previous year, while the production of rye flours remained the same as in the previous year. There was an increase observed in the production of pasta - by 1.8%, and in the production of pastry products (by 2.8%). In 2011, the development of prepared food continued to grow rapidly (increase of 15%, compared to 2010). The production of groats decreased slightly (by 0.7%), however the production of cereals increased (by 12%). In addition, an increase of 4% in production of fresh bread in large and medium-sized industrial enterprises was recorded.

In 2011, primary and secondary cereal processors continued to increase their investment activities. The most significant increase in investment outlays was observed in the production of feedstuff and in cereal milling.

## Sugar market and sugar processing

After France and Germany, Poland is the third largest producer of sugar in the European Union. In 2011, sugar beet crops increased by 16.5%, compared to the previous year, and amounted to 11.6 million tonnes. The main reason behind high yields were record high crops – 611 dt per 1 ha. As in the previous year, contract farming covered an area of 190 thousand ha. In 2011, the number of planters decreased by 2.3 thousand, compared to the previous year, and amounted to 36 thousand. Consequently, the average plantation area increased by about 5%, and amounted to 5.3 ha. Despite this progress, the source of raw materials for sugar industry in Poland is still highly fragmented, compared to that of the main competitors within the EU. The most highly fragmented structure is observed in plants belonging to Krajowa Spółka Cukrowa (National Sugar Company) (4.9 ha on average). Sugar yields from domestic raw material was record high, and amounted to 16.21%, compared to 14.29% in the previous year. According to Central Statistical Office, in 2011 the purchase price of sugar beet increased by 26.5%, compared to the previous year, and amounted to PLN 144 per 1 ton.

## Sugar processing

In recent years, the financial performance of Polish sugar industry has been highly positive. This results from high national and global prices of sugar and from the restructuring processes. Recently, a significant technological progress in the sugar industry has been made, which may be illustrated by the amount of investment outlays, which in 2007–2011 amounted to PLN 1.4 billion. Polish sugar industry provides a wide range of high-quality products, which are highly-valued by consumers, both on the EU and on the global market.

Since the 2010/2011 marketing year, 5 producers have been active on the Polish sugar market: Krajowa Spółka Cukrowa S.A., Pfeifer & Langen Polska S.A., Pfeifer & Langen Glińojek S.A., Südzucker Polska Sp. z o.o. and Nordzucker Polska S.A.

The 2011/2012, sugar production campaign covered 18 sugar plants with a significant increase in the scale of output per plant and in labour productivity. Raw sugar refining is a new phenomenon in the sugar industry. The total sugar production was 1,869 thousand tonnes. The positive effects of restructuring and modernisation of the entities of the sector played an important role in the increase in sugar production. In addition, the process of concentration of sugar beet cultivation in large holdings is progressing. Sugar producers purchased from planters and processed 11.6 million tonnes of beets. The campaign lasted 107 days on average.

The cooperation between sugar producers and sugar beet planters was, and still remains, based on contract farming agreements. In 2011, an average purchase price of sugar beets increased by 26.5%, which significantly improved crop profitability.

Although, in recent years, sugar consumption in Poland was stable, amounting in 2011 to about 1.5 million tonnes, its structure has been changing significantly. Sugar consumption in households has been steadily decreasing (about 14.1 kg per capita), while the consumption and exports of foods containing sugar has been increasing. Sugar production surplus is exported to third countries and used for non-food purposes.

## Fruit and vegetable market and processing

In 2011, the yield of fruit in Poland was 24% higher than in the previous year, and 7.6% higher

than the average over 2001–2009 (see the table below) and amounted to 3.4 million tonnes. The yield of apples amounted to 2,49 million tonnes, compared to 1.88 million tonnes in the previous year (an increase of 32.4%). An increase was also recorded in the yield of sour cherries – of 19% to 175 thousand tonnes, as well as in the yield of strawberries – of 8% to 166 thousand tonnes. An increase was also recorded in the yield of raspberries, which reached a record high level of 118 thousand tonnes. Compared to the previous year, the yield of blackcurrant decreased the most, i.e. by 15% compared to 2010, and amounted to 125 thousand tonnes.

In the 2011/12 season, the average price of dessert apples was lower by over 30% than the purchase price in the previous season, and amounted to PLN 1.30 per kg. Prices of apples purchased for processing remained high and were similar to those in the previous year, amounting to PLN 0.63 per kg on average. The purchase prices of cherries at collection points also decreased and amounted to PLN 2.65 kg, i.e. they decreased by 5% compared to the previous year, when they amounted to PLN 2.8 per kg. Similarly, in the case of sour cherries for the production of juice, the prices at collection points were lower than in the previous year and amounted to PLN 1.90 per kg – a decrease of 10%. A significant drop in the purchase prices of raspberries for freezing to PLN 2.3 per kg (by nearly 40%, compared to the previous year) was observed, which resulted from high domestic yield of this fruit and from the limited demand on foreign outlet markets. In the case of strawberries for freezing, an increase in prices was observed. The prices of this raw material increased by 40%, compared to those in the previous year, reaching PLN 4 per kg.

	Average over 2001-2009	2010	2011	20121	2011	
					2001-2009 = 100	2010=100
Total fruit harvest	2795,9	2743,5	3414,6	3370	122%	124%
Fruit harvest from trees	2366,4	2220	2887	2895	122%	130%
including: apples	1999,3	1877,9	2493,1	2550	125%	133%
pears	62,4	46,5	62,8	60	101%	135%
plums	90,9	83,8	91,8	80	101%	110%
sour cherries	155,5	147,2	175	155	113%	119%
cherries	35,6	40,1	38	30	107%	95%
Harvest of fruit from fruit-bearing bushes and plantations of berries	429,4	523,5	527,6	475	123%	101%
including: strawberries	158,1	153,4	166,2	130	105%	108%
raspberries	53,6	92,9	118	110	220%	127%
currants	162,1	196,7	169,6	165	105%	86%
gooseberries	15,6	14,2	14,6	14	94%	103%
highbush blueberry	5,36	9,2	8,6	9	160%	93%

Fruit production in Poland (in thousand tonnes). Source: Market analyses Institute of Agricultural and Food Economics.

In 2012, the yield of fruit in Poland is expected to decrease, compared to the abundant yield achieved in the previous year, and is expected to amount to about 3.37 million tonnes.

As for the fruit from fruit-bearing trees, the yield of apples will increase, while the yield of sour cherries, pears, plums, cherries as well as peaches and apricots will decrease. The yield of strawberries and raspberries will also decrease.

Weather conditions before and during the vegetation period have hardly affected the level of yield. Mostly young plantations of strawberries in south-west and central Poland froze.

## Vegetables

In 2011, the production of soil-grown vegetables increased by 14.7%, compared to the previous year, reaching 4.8 million tonnes. The yield of cabbage increase by 25%, compared to the previous year, from 0.99 million tonnes to 1.23 million tonnes. A significant increase in production was also recorded in the case of soil-grown tomatoes – from 225 thousand tonnes in 2010 to 273 thousand tonnes (an increase of 21%). As for onions and cucumbers, their production increased by 17%, compared to 2010, reaching 667 thousand tonnes and 297 thousand tonnes, respectively. The yield of vegetables under protected cultivation increased by 12%, reaching 772 thousand tonnes. Production of mushrooms was 13% higher than in 2010, reaching 260 thousand tonnes.

It should be emphasised that the increase in the yield of soil-grown vegetables recorded in 2011, compared to 2010, can mainly be brought back to the drop in their production in the previous year resulting from unfavourable weather conditions, as well as from flooding and inundation of crops, which also contributed to the lowering of the quality of the vegetables.



In 2011, the purchase prices of almost all species of soil-grown vegetables were lower than in 2010. The largest drop in prices was observed in the case of cabbage, which was purchased at prices 80% lower than in the previous year (PLN 0.30 per kg). The prices of onions also decreased dramatically – by almost 50%, compared to the previous year – reaching the level of PLN 0.60 per kg. Significantly lower prices were also recorded in the case of soil-grown tomatoes, beetroot, celery, carrots, soil-grown cucumbers and red pepper. The prices of mushrooms increased slightly (by 6%).

The prices of vegetables under protected cultivation also decreased significantly. The price of greenhouse tomatoes was PLN 2.88 per kg, i.e. 30% lower than in 2010. Similarly, the prices of cucumbers under protected cultivation dropped by 10% on average, reaching PLN 2.61 per kg. In 2012, the crop area of most of soil-grown vegetables will decrease. It is expected that the production of soil-grown vegetables may decrease to the level of 4.56 million tonnes (i.e. by 5%). The yield of onions and cabbage will decrease the most – to 0.6 million tonnes and 1.1 million tonnes, respectively. The production of other species of soil-grown vegetables and vegetables under protected cultivation is estimated to remain at a level similar to that reached in the previous year. The yield of mushrooms will remain at a similar level.

The decrease in the prices of vegetables under protected cultivation resulted from a serious crisis that occurred in the spring of 2011, following the publication of an information that allegedly fresh vegetables were the source of the epidemic of food poisoning caused by dangerous EHEC bacterial strain that struck in Germany. Additionally, the ban on imports of vegetables imposed in mid 2011 by the Russian Federation contributed to the reduction of demand and in a larger decrease in prices.

	Average over 2001-2009	2010	2011	2012	2011	
					2001-2009 = 100	2010=100
Total harvest of vegetables	5338,74	4877,9	5575,1	5325	104%	114%
Soil-grown vegetable harvest	4655,42	4188,8	4803,3	4555	103%	115%
including: Cabbage	1313,00	985,7	1231,2	1100	94%	125%
Cauliflower	212,44	214,4	236,6	235	111%	110%
Safe level.	682,63	578	677	600	99%	117%
Carrots	867,44	764,6	887,4	880	102%	116%
Beetroot	356,97	289,9	369,6	360	104%	127%
Cucumbers	277,30	252,6	296,7	280	107%	117%
Tomatoes	246,74	225,3	272,7	260	111%	121%
Harvest of vegetables under protected cultivation	683,32	689,1	771,8	770	113%	112%
including: Tomatoes	382,79	384,1	439,6	435	115%	114%
Cucumbers	203,27	185	214,2	215	105%	116%

Vegetable production in Poland (in thousand tonnes). Source: Market analyses Institute of Agricultural and Food Economics.

## Fruit and vegetable processing

Although, compared to 2009–2010, its financial performance worsened, in 2011 the financial situation of the fruit and vegetable industry remained positive. The financial costs were higher than in the previous year (by 3.6%), thus constituting a larger burden for enterprises. For many years, the financial liquidity of enterprises has been stable and has remained at a safe level. The sector makes profits at all levels of activity and increases its investment activities.

## The state of organisation of the fruit and vegetable market in Poland

A precondition for granting support for the horticultural sector from the EU public fund is that producers have to organise themselves in groups and organisations. The purpose of these groups and organisations is to concentrate the supply and sale of products of their members, to plan production and to adjust it to the needs of the market, both in quantitative and in qualitative terms, as well as to reduce production costs, stabilise product prices and to promote cultivation methods and technologies and management of wastewater and waste in environmentally friendly way. 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). Currently, the value of products marketed by groups and organisations amounts to about 15% of domestic horticultural production. The average level of organisation of the horticultural market in the EU Member States is about 35%.

In July 2012, there were 239 groups and 68 organisations of fruit and vegetable producers registered in Poland.



## Tobacco market

Poland ranks third in the European Union as to tobacco size production which in 2011 amounted to 30.1 thousand tonnes. The average yield was 2.0 tonnes of raw tobacco per 1 ha. Tobacco is grown by 12.3 thousand farmers on the area of 14.9 thousand ha. This is one of the best organised agricultural production sectors in Poland. Over 90% of planters are associated in tobacco producer groups. The national volume of tobacco production is processed within Poland by a well organised first processing network. Polish tobacco, which complies with the highest quality standards, is mainly used for the production of American blend cigarettes, over half of which is exported.

## Hop market

Poland is the fourth hop producer in the EU, outpaced by Germany, the Czech Republic and Slovenia. In 2011, the area of hop cultivation amounted to 1.65 thousand ha, of which bitter varieties accounted for 72%, and aromatic ones for 28%. In 2011, hop was grown by 689 farmers. Production of hops increased by 25%, and amounted to 2.4 thousand tonnes. This is equivalent to 194 tonnes of alpha acids.

Poland has one of the most advanced production lines for the extraction of alpha acids from hops in

Europe. Beer is produced from hop alpha acids stored in the form of extracts and pellets. Polish aromatic hop varieties are highly valued in the brewing industry. Hop grown in Poland is characterised by an excellent quality and unique flavour.

## Flax and hemp market

In 2011, the area of fibrous plant cultivation in Poland amounted to about 400 ha for flax and about 240 ha for hemp. They are used for the production of a wide range of classic clothing and textile products (including eco-string for agriculture). They are also used in the construction sector for the production of insulation planks and materials, in the chemical industry, as well as in cellulose and paper, food, cosmetics and pharmaceuticals industries. A transgenic variety of flax developed by Polish scientists contains compounds with antiseptic properties and having a wide range of applications in medicine and in treating wounds.

## Dried fodder market

In the 2011/2012 marketing year, the area of pasture for dried fodder was 1.3 thousand ha, of which: 1.0 thousand ha constituted permanent pasture and 0.3 thousand ha – crops of grass with papilionaceous plants on arable land. In the 2011/2012 marketing year, the approved processing enterprises in Poland produced a total of 8.9 thousand tonnes of dried fodder. Dried fodder is the feedstuff component that contains raw fibre improving peristalsis of the digestive system of cattle.

## MEAT MARKET AND PROCESSING

Poland is an important meat producer in the European Union. In 2011, it ranked fourth in terms of the production of both pork meat as well as of poultry, and it was the seventh largest producer of beef.

A clearly positive balance in the international turnover of meat is observed in Poland; in 2011, it increased by 23 thousand tonnes, or by 4.5%, compared to 2010, reaching 530 thousand tonnes.

	Production	Exports*	Imports*	Turnover balance
pork	1 881	503	668	-165
beef	385	329	22	307
poultry	1 426	481	93	388
TOTAL	3 692	1 313	783	530

\*exports and imports in meat equivalent

Table Production and international turnover on meat markets in 2011 (in thousand tonnes). Source: *Meat market – current situation and prospects, May 2012, publication of the Institute of Agricultural and Food Economics.*

In 2011, the overall consumption of meat amounted to 74.4 kg per capita. Consumption of pork accounted for the biggest share (42.4 kg per capita), followed by poultry (25.6 kg per capita), while the share of the consumption of beef was the smallest one (2.3 kg per capita).

Compared to 2010, an increase was recorded only in the case of poultry and it amounted to 0.8 kg per capita. As regards other kinds of meat, a slight drop was recorded – the consumption of pork decreased by 0.2 kg per capita, and the consumption of beef – by 0.1 kg per capita.

## Pork meat market

In the 2011/12 marketing year, as in the year 2010/11, the pig stock was unprofitable due to the prevailing high prices of cereals and industrial feedstuff. According to data of the Central Statistical Office, at the end of March 2012, the pig population was 11,478.0 thousand, which shows a decline of 12.4%, compared to the analogous period in the previous year. The number of pigs in all groups in the structure of a herd of pigs dropped: of piglets by 16.6%, young wild boars by 17.9%, pigs for fattening by 5.7% and pigs for breeding by 4.7%, including sows for breeding – by 4.7%.

Compared to March 2011, in the structure of pigs in total:

- the share of piglets and young wild boars decreased,
- the share of pigs weighting 50 kg and above for slaughter (pigs for fattening) and the share of pigs weighting 50 kg and above for breeding, including sows, increased.

As a result of changes in pig population, some fluctuations in pork production were also recorded. In 2011, the production amounted to 1,881 thousand tonnes and was 18 thousand tonnes (1%) higher than in the previous year, compared to the 8.5% increase (of 146 thousand tonnes) in 2010/2009.

The forecasts of the Institute of Agricultural and Food Economics show that in the first half of 2012 pork production may be 9% lower than in the first half of 2011. Throughout 2012, it may amount to 1,680 thousand tonnes and decrease by 201 thousand tonnes (10.7%), compared to 2011.

According to data of the Central Statistical Office, in 2011 the purchase price of pigs in Poland was PLN 4.52 per 1 kg of live weight, and it was PLN 0.63 per 1 kg (16.2%) higher than that in 2010 (PLN 3.89 per 1 kg). Although it was not a record high price, it was close to the price recorded in 2009 (PLN 4.56 per 1 kg). Compared to the previous years, the prices developed throughout the year in a specific way. They usually reach the highest level in summer, and the lowest in the first and fourth quarters. However, in 2011 the prices reached their peak in the fourth quarter and increased by 37%, compared to the analogous quarter of 2010. In 2011, the high increase in the prices resulted from the decrease in the pig production that started in the second half of the year, and from an increase in prices on the EU market. However, it did not eliminate the high increase in the prices of cereals and feedstuff. The upward trend in the prices of pigs prevailed also in the first half of 2012.

According to data of the Central Statistical Office, in May 2012 the average purchase price of pigs increased by PLN 0.95 per 1 kg (+21.5%), compared to that in May 2011, reaching PLN 5.36 per 1 kg.

## Beef market

For several years, the production of beef in Poland has been at a standstill, which results from a low consumption of this kind of meat, which to a large extent depends on the income of the population. This translates into the size of cattle population.

In December 2011, the cattle population amounted to 5,499.6 thousand, showing a decline of 1.1% during the year. The decline of the overall herd of cattle resulted from the decrease in the number of calves (by 1.8%) and in the group of adult cattle aged 2 and above, including cows (by 2.2% and 2.6%, respectively). Compared to December 2010, in the structure of the herd of cattle the share of young cattle aged 1–2 increased, while the share of calves and adult cattle aged 2 and over, including cows, decreased.

The shares of individual age and use groups in the overall structure of the herd of cattle in December 2011 were the following:

- calves younger than 1 year of age – 24.8%,
  - young breeding and slaughter cattle aged between 24 and 48 months – 22.8%,
  - adult breeding and slaughter cattle aged 2 and over – 52.4%,
- including:
- cows – 46.7%.

A study of cattle population, carried out in December, indicates an annual decline in the size of the overall herd of cattle resulting from a lower number of cows and calves. The decreased number of calves younger than 1 year of age can mainly be brought back to the decrease in the number of cows, including milk cows, taking place since 2008. The higher number of young cattle, aged between 24 and 48 months (by 2.4%), indicates a prevailing interest of farmers in the production of cattle livestock, resulting from high prices of cattle livestock, both at collection points and at marketplaces, despite the fact that in the period analysed the prices of feedstuff crops were high. The fact that agricultural holdings have been further orienting themselves to the production of cattle livestock is also indicated by the increasing population of suckler cows. In December 2011, the size of the herd of suckler cows increased by 14% per year. Despite the fact that higher, compared to 2010, purchase prices of milk prevailed, a decrease in the number of milk cows during the year was recorded (by 3.3%), and during the season – since June 2011 – the decrease amounted to 1.1%.

In 2011, a total of 1.28 million adult cattle were slaughtered for commercial purposes. This indicated a decrease of 2.5%, compared to 2010. Young bulls accounted for 49.4% of the cattle slaughtered, cows – for 35.8%, and heifers – for 14.8%.

2011 saw record high purchase prices of cattle. According to data of the Central Statistical Office, in 2011 an average price per 1 kg of live weight was PLN 5.58, which was 22.4% higher than in the two previous years, and 38% higher than in 2008.

In 2012, the upward trend in purchase prices prevailed. In May 2012, the purchase price of cattle amounted to PLN 6.31 per 1 kg of live weight, and was 8.8% higher than in May 2011.

## Meat processing

In 2011, the situation in meat processing remained positive. This resulted from a significant increase in the production of meat products, which, coupled with a slight decrease in the number of animals slaughtered, contributed to the increase in the production value of the sector. The increase in the prices of raw material, which was three times as high as that of purchase prices, resulted in a decrease in profits and profitability, compared to 2010, which was a very profitable year. However, the profits and profitability were high enough for the economic and financial situation of enterprises to further improve. In 2011, the situation in the sector of meat products, and especially of tinned meat, was particularly favourable. The production of meat products is not influenced by the effects of the reduction of raw materials as the latter is compensated with the processing of imported pork and with a wider use of poultry meat in the production of sausages and tinned meat. Further reduction of raw materials may result in a slowdown of the upward trend in the production of meat products in the coming months.



## Eggs and poultry market

Over 93% of meat within the structure of poultry market production comes from broilers and turkeys. Waterfowl accounts for only approx. 3%.

The production of poultry meat has been growing by a few per cent year by year, and consumption remains at the level of over 25 kg per capita. The year 2011 saw a slower increase of poultry production in comparison to the previous years. According to GUS, the 2011 poultry meat production amounted to 1,426 thousand tons, which was by 4% more than in 2010, and its dynamics was over twice slower. Exports remained the production stimulator; its share in the domestic production of poultry amounted to 34%. The effects of slower increase of poultry [production] were mitigated by imports, which in 2011 were by approx. 8% higher than in the previous year. The dynamic of exports was also slower. In 2011, the volume of poultry meat and products' exports increased from 456 thousand tons to 481 thousand tons, i.e. by 5.5%, in comparison to a nearly 34% increase in 2010.

Slower dynamics of poultry market development in 2011 resulted from high prices of agricultural raw materials, namely cereals and feed concentrates, which account for approx. 70% of the total cost of live poultry production costs and translate directly into the price of poultry meat and products.

The 2012 forecasts provide for an increase of poultry meat production by approx. 6% to 1510 thousand tons.

The 2011 farm prices of broilers and turkeys tended to rise strongly and in December they were by 19% higher than in December 2010, with considerable fluctuations in particular months. The 2011 farm prices of poultry animals were higher than those recorded between 2008-2010. In the first quarter of 2012, the rising trend in the farm prices of broilers prevailed; in case of turkeys, a slight decrease was recorded.

In June 2012, the farm price of chickens reached PLN 4.05 per kg, and that of turkeys - PLN 5.31 per kg. It was respectively by 64 grosz/kg (+18.7%) and 85 grosz/kg (+18.9%) higher, compared to June 2010.

## Egg production

Poland's share in the total EU egg production amounts to 8% (the same as the UK's) and Poland is the sixth greatest producer of eggs, following France (14%), Spain (11%), Germany (11%) and Italy (11%).

In recent years, the production of chicken eggs exceeded 10 billion, while the domestic demand was at the level of 70%. Over 30% of the domestic production was exported.

The increase of chicken eggs production recorded in 2010 was halted in 2011. A nearly 7% decrease in the production of chicken eggs was recorded in 2011 in comparison to 2010 (decrease to the level of 10.37 billion). Negative production dynamics was recorded for the first time in many years. Domestic production of consumption eggs amounted to 9.42 billion in 2011, which accounted for 91% of the total production of chicken eggs. In 2011 the number of hatching eggs of laying hens subject to incubation decreased by 13.2% in comparison to 2010, and the number of births of laying hens intended for intensive egg production decreased by 18.1%. The fall in egg supply on the domestic market was a result of reducing production due to the need to adjust chicken farms to the welfare requirements concerning laying hens.

The 2011, imports of consumption eggs were by over 18% higher than in the previous year, and exports were by 10% higher. However, the domestic market was undersupplied in 13% in comparison to 2010. Exports remained the chief factor to stimulate production, which is also demonstrated by a high level of self-sufficiency of production, which in 2011 exceeded 135%. This means that the share of exports in egg production exceeded 35%.

In 2011 – the year preceding the introduction of a ban on conventional cages for laying hens - the prices of consumption eggs on the EU market were subject to significant fluctuation. In the second half of 2010 and at the beginning of 2011, egg prices were falling due to oversupply resulting from good 2010 production results. In the first half of 2011, the average selling price of consumption eggs (size L and M) in the EU was EUR 104.1/100 kg, and was by 18% lower than the price in the same period in 2010. Since the second half of 2011, a price increase has been observed on the EU market, including Poland.

In the first half of 2011, the average prices of eggs on the domestic market were below the 2010 levels, although throughout 2011 they were higher than the 2010 prices. Dynamic increase of consumption egg prices as well as egg farm prices took place in the second half of 2011. The sales structure was dominated by M size eggs – 51.8%, followed by L size eggs – 37.1%, S size eggs – 6.5% and XL size eggs – 4.6%.

The average price of L and M size eggs in Poland in 2011 varied and amounted to PLN 27.6 /100 units. It dropped by 6.8% in relation to that of 2010 and by 10.5% in relation to that of 2009 when it reached the highest level of PLN 30.8/100 units.

The 2011 farm prices of eggs for processing in Poland demonstrated a rising trend, and in December they exceeded PLN 4 thousand/ton. The rising trend was maintained also in the first quarter of 2012. In the second half of March 2012, a record price of PLN 7080/ton was paid for eggs for processing, and in the following weeks the price increase was halted.

## Poultry meat processing

In 2011, the financial result of the sector was worse in comparison to the previous period. The branch as a whole generated profits, but the profitability ratios were lower than in 2010. However, the average level of investment - measured by the amount of investment input in relation to depreciation – increased. Poorer results were influenced by several factors, the major one being high purchase cost of slaughter animals, which was not offset by increased prices offered to commercial chains and consumers.

## Milk market

Milk production is one of the most important sectors of agricultural production in Poland. According to GUS figures, the 2011 value of industrial milk production amounted to PLN 12.2 billion and accounted for over 17% of overall value of agricultural commodity production. The total 2011 production of milk in Poland increased by 1.1% and amounted to 12.4 million tons, despite the prevailing falling trend in the number of milk cows. Herd reduction by 3.3% to the number of 2.4 million units of dairy cows as at December 2011 was offset by nearly 4% increase in productivity to the level of nearly 4,855 kg. The reduction of the dairy herd was a result of decreasing number of milk producers in Poland. However, the number of dairy cows subject to utility value assessment is growing – at the end of





2011, almost 26% of the dairy cow herd was subject to assessment, and the average productivity of a cow evaluated reached 7,135 kg of milk.

Due to progressing restructuring in milk production and processing, the number of milk producers and entities buying in milk has been decreasing. Between 2004-2012 the number of wholesale suppliers decreased by 56% and now amounts to 156 thousand, and the number of direct suppliers dropped by 82%, to the level of 13 thousand. In that period the number of buying-in entities dropped by 15% - from 356 to 301.

Progressive concentration and specialization of production affects the annual increase of industrial milk production, due to which the national wholesale quota is nearly wholly utilized. In the quota year 2011/2012 approx. 9.54 billion kg milk was bought-in (by conversion to milk with reference fat contents), the degree of utilizing individual quotas available to wholesale supplies amounted to approx. 98.5%. In annual terms, in 2011 almost 9.3 billion kg was bought in, i.e. by 3.4% more than in 2010

In the first half of 2012, dairies bought in almost 5 million tons of milk, i.e. by 9.5% more than in the same period of 2011. Milk supply increase translated into increased production of the majority of milk products. At that time 85 thousand tons of butter were produced, i.e. by as much as 25% more than a year before. The production of skimmed milk powder was at the level of 53 thousand tons, i.e. by 16% higher than in the previous year, and the production of cheese rose by 9% to 364 thousand tons. The organization of the market of milk and milk products comes under the Common Agricultural Policy. The policy is based on milk production quotas and a possibility to introduce specific intervention actions in order to stabilize prices. The purpose of quotas is to decrease a distortion of balance between supply and demand on the market of milk and milk products, in order to ensure profitability of milk production.

Within the quota system each Member State has a national milk quota which reflects the maximum amount of milk which may be marketed in a given quota year, i.e. between 1 April and 31 March the following year. National milk quota is divided into the national wholesale quota – including milk supplies by farmers to buying-in facilities and a national direct quota – within which farmers sell milk and milk products directly on the market. Exceeding the national wholesale quota or the national direct quota results in a fine to be paid to the EU budget.

Current legislation provides for the existence of quotas until 31 March 2015. In order to adjust the milk market to operating without quotas, the national milk quota has been increased since the quota year 2009/2010 by 1% for the consecutive 5 years. The increase is allocated fully to the national wholesale quota. In the current quota year 2012/2013, the national milk quota amounts to 9.96 billion kg, including the national wholesale quota of 9.8 billion kg, and direct quota of 155.5 million kg.

The scope of market intervention to be undertaken on the milk market results directly from the EU law where, apart from obligatory measures, some measures have been prescribed as optional. Obligatory measures include the intervention buying-in of butter and skimmed milk powder (from 1 March till 31 August) and subsidies for private storage of butter (from 1 March till 15 August) as well as subsidies to milk and milk product consumption in school facilities.

Decisions to trigger optional intervention measures, i.e. to subsidize skimmed milk powder processed into casein and caseinates, subsidies to skimmed milk intended for the production of feedstuffs and

export refunds for milk products are taken by the European Commission and depend on the assessment of a situation on the milk market.

## Subsidies to the consumption of milk and milk products in school facilities

For eight years now, the Agricultural Market Agency has been implementing a “Glass of Milk” scheme. The aim of the scheme is to shape healthy nutrition behaviours in youth by means of promoting the consumption of milk and milk products. The scheme is funded by three sources:

- EU budget, from which the supply of milk and milk products to all the school facilities concerned is funded,
- state budget from which the supply of milk and milk products to primary schools is funded, thanks to which children are provided with plain milk free of charge,
- Milk Promotion Fund, from which covers the supply of milk and milk products to kindergartens and middle schools is funded.

In the school year 2011/2012, 2.43 million children and pupils of 14.3 thousand schools benefited from the scheme. In this period, the Agricultural Market Agency spend over PLN 130 million on this initiative, (from EU funds and domestic funds together) and PLN 1.22 million from Milk Promotion Fund. Since accession till 25 July 2012, nearly 334 thousand tons of milk and milk products were subsidized under the „Glass of Milk” scheme. This makes approx. 1.3 billion glasses of milk, including the EU funding which amounted to PLN 236 million, the national budget – PLN 561 million and Milk Promotion Fund - PLN 24 million.

For details see the chapter on Agricultural Market Agency

## Milk processing

Due to a significant cost increase, including especially the cost of raw materials, in 2011 the financial situation of dairies worsened despite a dynamic increase of milk selling and processing prices. Despite the 13.7% increase in the sales value of dairies in comparison to 2010, gross profits decreased by 7.3% (from PLN 630 million in 2010 to 583 million in 2011). Despite worse financial situation the share of profitable firms in the general number of milk processing entities increased (from 80.5% in 2010 to 81.6% in 2011). Worsened financial condition of the enterprises resulted in a 22% drop of investment value in the sector.

## Honey market

According to GUS figures, the production of honey in Poland in the year 2011 reached approx. 23 thousand tons, i.e. was above the average production (16.2 thousand tons) within the recent 10 years. Slightly more than 17% of honey produced in Poland was sold to buying-in facilities. The remaining amount of honey was sold directly – i.e. at higher prices. For many years Poland, as other EU Member States, has been recording a surplus of imports over exports of honey. In 2011 Poland imported 13.6 thousand tons of honey, i.e. 17.2% more than in the previous year, mainly from Ukraine and China. In the same period 4.2 thousand tons honey was exported, i.e. by 55.6% more than in 2010. Nearly 100% honey exports target the EU market. At the same time, foreign trade deficit reached the level of 9.4 thousand tons and was by 5.6% higher than in the previous year.

The Ministry of Agriculture and Rural Development has been developing **national bee-keeping support schemes** (funded fifty-fifty by the state and EU budgets) according to the Council Regulation (EC) No. 1234/2007 of 22 October 2007 establishing a common organization of agricultural markets and on specific provisions for certain agricultural products (single CMO Regulation) (Official Journal 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 bee-keeping.

The first scheme was implemented between 2004/05-2006/07 - with the scheme budget of EUR **11.7** million.

The second scheme was implemented between 2007/08-2009/10 - with the scheme budget of EUR **13.3** million .

The third scheme is under way (2010/11-2012/13) - with the scheme budget of EUR **15.1** million.

The scheme implemented between 2007/08-2009/10 attracted bee-keepers who kept the total of over 1 million bee families from 1.1 million of those registered by Poviats Veterinary Officers. Over 90% of funds available in the budget were used for the purpose of the scheme. Nearly 90% of that amount was intended for refunds of anti-varroaosis drugs and refunds of bee purchase.

**Between 2010/11 - 2012/13**, according to The Terms and Conditions of Applying for the Refund of Cost Incurred for the Implementation of the Measure: Support of Bee Products, published by the Agricultural Market Agency, the following net cost are eligible for refund: (excluding VAT):

- Bee-keeping related training, courses and conferences (100% refund);
- Purchase of anti-varroaosis drugs (100% refund);
- Purchase of trailers for bee-hive transportation (refund up to 60% of a unit price);
- Analyses of physical and chemical properties of honey and pollen analysis of honey (100% refund);
- Purchase of queen bees of known value in use, packages and divisions with such queen bees (refund of up to 70% of a unit price);
- Purchase of new bee-keeping equipment (refund up to 60% of a unit price);
- Purchase of laboratory equipment (refund up to 60% of a unit price).

A bee-keeper who is an independent owner or dependent owner of a farm, the economic value of which is an equivalent of or exceeds 4 ESU (European Statistical Unit)<sup>1\*</sup>, cannot benefit from support for the purchase of bee-keeping equipment.

## BIOFUEL

The basic bio-components used for liquid fuels and liquid biofuel include bio-ethanol and rape seed oil esters. Currently for the purpose of implementing the National Target, more and more amounts of bio-components produced from domestic agricultural raw materials are used. The market is progressively developing, although the pace of the development is not as fast as expected by agricultural producers and bio-component manufacturers.

The development of this market is indicated as one of the basic components of the climate policy of the European Union. Under Directive of the European Parliament and of the Council 2009/28/EC 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, as mentioned above, the Member States, including Poland, were obliged to introduce regulations by 2020, as a result of which 10% energy used in transport is going to come from renewable sources. The minister of economy is responsible for implementing this policy, but to achieve this goal it is necessary to closely cooperate with the agricultural sector, as it is the agricultural sector which has the raw materials for the production of bio-components and biofuel.

The market of biofuel and bio-components in Poland is regulated by Bio-components and Liquid Biofuel Act of 25 August 2006. Under this statute a Multiannual Biofuel or other Renewable Fuels Promotion Scheme 2008-2014 was developed, which was approved by the Council of Ministers on 24 July 2007. The scheme provides for the use of a number of measures to support the development of biofuel market.

The Ministry of Agriculture and Rural Development has critically assessed the hitherto development of the market of biofuel and bio-components based on periodically conducted analyses. This assessment results from the observed failure to implement commercial and social goals. As a consequence, based on available materials which picture the situation on the market, a complex assessment of implementation of the Multiannual biofuel or other renewable fuels promotion scheme 2008-2014 was made by the Council of Ministers upon an initiative of the Minister of Agriculture and Rural Development. As a result, the Council of Ministers obliged ministers concerned to conduct analyses and to review the current legislation. Amendments are going to be implemented by a modification of relevant statutes which regulate or otherwise influence the market of liquid biofuel and bio-components.

Current legislation obliges fuel producers to use bio-components in liquid fuels and liquid biofuel, the amount of which results from the National Target (NCW) which for 2010 amounted to 5.75%, in 2011 – 6.20% and in 2012 - 6.65%. The value of this indicator increases so that in 2020 to reach the level of 10%.

Thus, the quantitative demand for bio-components results from the NCW values for a given year

1) having regard to Article 106 of the Council Regulation (EC) No. 1234/2007 of 22 October 2007, support may be available for bee-keepers, who are not eligible for financial support for modernization of farms within Rural Development Program 2007-2013 which was developed, inter alia, based on Council Regulation (EC) No.1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development.

and from the amount of fuel used in transport. Between 2008-2011 NCW was implemented at the required level, which is shown in the table below.

The use of fuels and bio-components between 2008-2010						
Year	Petrol	Diesel	Bio-ethanol	Esters	% of realized NCW level	% or required NCW level
2008	4 110	10 066	185,6	473,4	3,62	3,45
2009	4 125	10 387	232,2	632,5	4,61	4,60
2010	3 885	10 903	238,0	886,1	5,91	5,75

Table Amounts of liquid fuels and bio-components introduced to marketing in Poland between 2008 – 2010.

Source: *Adjusted Aggregated Quarterly Reports of URE President and own calculations of MARD* (assumed density: petrol – 748 kg/m<sup>3</sup>; bio-ethanol – 791 kg/m<sup>3</sup>; diesel – 833/m<sup>3</sup>; ester – 880 kg/m<sup>3</sup>).

The above mentioned figures show increased consumption of diesel, and consequently esters, and the reduction of the amount of marketed petrol, with stable use of bio-ethanol.

Assuming that in 2011, 100% bio-components would originate from domestic production, in order to produce them, one should use respectively: for bio-ethanol – approx. 799 thousand cereals and for esters – approx. 2 380 thousand tons rape. Having regard to domestic cereal production which is estimated at the level of 27.2 million tons and the domestic consumption for feedstuffs and foodstuffs, there would be no problem to cover domestic demand for raw materials for the production of bio-ethanol.

In case of rape, the production of which is estimated at approx. 1.9 million tons, and the demand for rape for food industry (approx. 1 million tons), in order to satisfy the demand for this raw material for biofuel purposes one would have to import it or satisfy a portion of demand for esters from other sources than domestic supplies. In a longer perspective, the development of rape cultivation in Poland will have to take place first of all through the increase in productivity. According to experts, exceeding the area of rape cultivation by over 1-1.2 million ha is going to be difficult due to Poland's agricultural and climatic conditions.

According to available figures, domestic production of bio-ethanol within the total amount of that bio-component which has been marketed in the recent 3 years accounted on average for 58%, and in case of ester this share was on average 45%.

## Agricultural biogas

Agricultural production may provide for an important source of raw materials for renewable energy production. Having regard to the key objective of agriculture, namely ensuring food security, the Minister of Agriculture and Rural Development pays particular attention to the following to be used for energy in the first place:

- agricultural by-products and residues;
- agri-food industry by-products and residues;
- liquid and solid animal waste;
- Energy plants.

The most effective method of using those substrates is to surrender them to methane fermentation in agricultural bio-gas plant.

The production of energy from agricultural biogas can bring a lot of benefits, i.a. to rural areas, including:

- improvement of energy security,
- using mainly local biogas manufacturing plants for gas and electricity supply,
- implementation of international covenants, defined in the accepted environmental and climatic objectives, based on locally available raw materials,
- production of major amounts of energy from raw materials which do not compete with the food production sector, such as agricultural waste, liquid and solid animal waste and waste accumulated by agri-food industry, which does not need thermal processing or recycling,
- increase of agricultural income as a result of marketing products which have hitherto not been marketable, and selling a surplus of energy produced,

- obtaining of environmentally friendly post-fermentation substances which can be used in agriculture,
- generating energy from the use of residues and organic waste which, as a result of undergoing uncontrolled process of disintegration, emit greenhouse gasses to environment.

According to Technology and Life Sciences (ITP), the annual potential for raw materials for the production of biogas which might originate from agricultural waste products and residues of agri-food industry amounts, in real terms, to:

- approx. 1 540 million m<sup>3</sup> (agricultural waste);
- approx. 100 million m<sup>3</sup> (from agri-food industry waste).

Permanent pastures (TUZ) can also be a major source of raw material for biogas production. According to ITP estimates, TUZ may provide for at least 2 300 thousand tons of grass per annum to be used for the production of energy. Such amounts can be obtained on assumption that these pastures are not fertilized, based on natural soil fertility, and biomass obtained for energy is not used to the detriment of feedstuffs production. Thus, the amount of energy contained in the ground flora of permanent pastures and possibilities of their being used for biogas production are quite significant (in total approx. 1.1 - 1.7 billion m<sup>3</sup>/year).

Animal waste also counts as an important raw material for the production of biogas. Polish farms are estimated to produce 35-38 million m<sup>3</sup> slurry a year, of which at least 20% can be used to produce biogas. Manure is also a valuable substrate.

Thus, Polish agriculture potential for energy production is quite huge and after complementing it with the production of special crops, with no detriment to the food production, it will be possible to obtain raw materials (substrates) which are necessary to produce approx. 5 – 6 billion m<sup>3</sup> of biogas a year, the purity of the biogas corresponding to the purity of high –methane natural gas.

Taking account of the potential of the Polish agricultural sector, the Minister of Agriculture and Rural Development prepared Guidelines for Agricultural Biogas Plants Development Scheme in Poland, on which the Ministry of Economy based its Directions for Agricultural Biogas Plants' Development in Poland 2010-2020. This document was approved by the Council of Ministers on 13 July 2010. It is estimated that the implementation of the Directions is going to result in increased interest in investment in agricultural biogas plants in the coming years.

Measures provided for in the document include the abolition of legislative constraints in order to facilitate the investment process as well as enhance information and promotion actions. Before the government approved of the Directions, works were completed over the revision of the Energy Law. As a result of the revision, support for agricultural gas was introduced in the form of a certificate of origin for agricultural biogas purified to the quality of natural gas and introduced to the grid, terms and conditions were set out for connecting agricultural biogas plants to the grid and agricultural biogas producers were released from the need to have a permit for the production of electricity from biogas – instead they must be registered as agricultural biogas producers.

As a result of subsequent simplifications concerning the investment process, agricultural bio-gas installations up to 500 kW were excluded from a group of undertakings which could significantly affect the environment, which releases such investments from the obligation of preparing an impact analysis. The above mentioned exclusion was provided for in the Ordinance of the Council of Ministers of 9 November 2010 on undertakings which might have significant effect on environment.

The use of post-fermentation by-products of agricultural biogas production as fertilizer was also streamlined. Substances which are produced as a result of anaerobic disintegration of manure, slurry, plant residues originating from agriculture and agri-food processing may be used as fertilizers upon the same principles as in case of natural fertilizers (without the need to fulfil additional requirements). Such a simplification was introduced by an Ordinance of the Ministry of Environment of 5 April 2011 concerning R10 recycling process.

Proposals for further simplifications to facilitate new investments involving the construction of agricultural biogas plants were included in a bill concerning renewable energy sources.

The Minister of Agriculture and Rural Development pays particular attention to the development of agricultural biogas plants as dispersed, small sources of renewable energy production. This is why, in actions undertaken, a need is underlined to provide special support to small agricultural installations below 500 kW. The size of installation is determined not only by its cost, by also by demand for raw material.

The above table presents figures concerning the demand for silage and the area needed to produce it, as well as the demand for slurry and the number of animals needed to produce it. A biogas

Installed power [kWe]	Demand for biogas [m <sup>3</sup> ]	Silage provides 100% substrate		Silage provides 70% substrate, and slurry provides the remaining 30%			
		Demand for silage		Demand for silage		Demand for slurry	
		Tons	ha	Tons	ha	Tons	LU
1000	3 650 000	21 000	440	14 700	308	40 556	1 763
500	1 825 000	10 500	220	7 350	154	20 278	882
300	1 095 000	6 300	132	4 410	92	12 167	529
200	730 000	4 200	88	2 940	62	8 111	353
100	365 000	2 100	44	1 470	30	4 056	176
50	182 500	1 050	22	735	15	2 028	88
30	110 606	636	13	445	9	1 229	53
20	73 000	420	8	294	6	811	35
10	36 500	210	4	147	3	406	18
5	18 250	105	2	74	1	203	9

Table Agricultural biogas plant's demand for substrate depending on proportions of silage to slurry (demand per crop area and the number of livestock units (LU). Source: MARD calculations based on exploitation figures (L.Ciurzyński) and IBMER.

plant operating in the substrate mode 70+30 (70% silage, 30% slurry) having the power of 100 kW needs approx. 31 ha arable land for the production of silage alone, not taking account of the need to cover the demand for feed (176 LUs) consumed by animals producing waste to be used in the biogas plant. Only such amount of the substrate ensures that production is adequate to the power, i.e. at the level of 365 thousand m<sup>3</sup> of agricultural biogas. In its information actions targeted at potential investors, the ministry focuses primarily on stressing the benefits of using agricultural biomass due to its composition, safety for environment and for human and animal health. The ministry informs about solutions adopted in the developed countries in respect of amount and technologies of obtaining agricultural biogas as well as increase of agricultural farms' competitiveness and income as a result of savings made as a result of recycling or storage of the substrate. Information is also provided on the obtainment of transferable certificate of origin and sale of energy surplus to the grid. At the same time the ministry informs those interested that every investment decision should be preceded by a detailed analysis of raw material availability, to ensure the maintenance of environmental and economic effect in the whole cycle of biogas production, i.a. via an assessment of distance needed for the transportation of substrates and post-fermentation residues.



### DISCOVER GREAT FOOD” SCHEME

“Discover Great Food” Scheme (PDŻ) is a scheme by means of which, since 2004, quality agri-food products have been promoted by the Minister of Agriculture and Food Economy. The aim of the scheme is also to motivate producers and processors operating on the EU market to improve the quality of food produced, and to increase the diversity of food in Poland and throughout the EU. A product marked with a PDŻ mark is also a good promotion of products and firms in Poland and abroad, by enhancing the producer’s and products’ prestige. PDŻ scheme also helps a consumer to make an informed choice when purchasing food products. By granting a product the right to use the PDŻ mark, the Minister of Agriculture and Food Economy points to the excellence of the product and its producer, and confirms very high and stable quality of such products.



#### Procedure concerning “Discover Great Food” Scheme

PDŻ mark may be applied for by producers and processors of agri-food products, regardless of their size and ownership form. One of the requirements to be fulfilled in order to participate in the Scheme is that business must be carried out within the European Union. A producer who is interested in marking his produce with a PDŻ mark may at any moment apply to the Minister of Agriculture and Rural Development to start a procedure, the result of which is granting the PDŻ mark. Any number of products may be notified. The PDŻ mark is granted to those products which fulfil the criteria of the PDŻ Scheme and are positively recommended by a Scientific Board for Food Quality – a body appointed for the purpose of the Scheme by the Minister of Agriculture and Rural Development. The Board is composed of experts on food processing, nutrition, medicine, plant and animal production as well as law and economy.

#### **The PDŻ mark may be granted to the following product groups:**

- 1) meat and meat products;
- 2) milk and milk products;
- 3) fish, shellfish and processed products thereof;
- 4) eggs and egg products;
- 5) honey;
- 6) fats for consumption;
- 7) cereal products, leguminous products and root vegetables
- 8) fruit, vegetables, fungi and processed products thereof
- 9) cakes and biscuits;
- 10) herbs and spices,
- 11) special purpose food products;
- 12) mixed products and products processed based on such products;
- 13) waters and non-alcohol beverages,
- 14) alcohol beverages;
- 15) other.

In order to maintain a stable and very high level of quality of the agri-food products concerned, the Minister of Agriculture assigns the PDŻ mark to a product for three years. The PDŻ Scheme related promotion actions of the Ministry of Agriculture and Rural Development also aim at disseminating know-

ledge of the Scheme and the terms and conditions of participating in the Scheme, as well as the knowledge of the products marked with the PDŻ mark. The promotion actions also include informing the consumers on the conditions of obtaining raw materials, technologies of productions, system of food quality and surveillance and the principles of marketing the products.

Within the framework of promotion activities related with the PDŻ Scheme the Ministry of Agriculture and Rural Development takes active part in numerous fairs and exhibitions organized all around the world. Promotion actions related with the PDŻ Scheme also include promotion actions to increase the awareness of the mark and the products marked. This includes: promotions in shopping chains, advertisement in magazines and TV programmes and radio, as well as mass field events.

Applications to participate in the Scheme as well as a list of attachments to be filled in for a product to be assessed are available at the website of the Ministry of Agriculture and Rural Development in the bookmark: Discover Great Food. For details, please refer to:

### **Ministry of Agriculture and Rural Development**

#### **DISCOVER GREAT FOOD Scheme**

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00-930 Warszawa

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## **POLISH REGIONAL AND TRADITIONAL PRODUCTS**

When in 2004 Poland joined the European Union, a lot of farmers were afraid of competition from more developed countries in which intensive production of plants and animals is a dominant method of agricultural production. However, it turned out very quickly that what raised concerns and anxieties, turned out to be a genuine asset. Dispersion of farms and low amount of chemical fertilizers used makes our agriculture naturally fit for the production of quality foods, organic and natural products – which is very much sought after by the European consumers.

Thanks to specific knowledge and skills transferred among farmers by fathers to their sons, the producers are already in their youth acquainted very well with natural and organic farm management. Raw materials produced in such a way are then processed by a traditional and unique method into high quality products which are cherished within the region of origin and become its an element of its identity.

#### List of Traditional Products

In order to identify such products, the Minister of Agriculture and Rural Development keeps a List of Traditional Products. The list was created in 2004 and it is a treasure box of knowledge about Polish traditional products. The List includes products, the quality or unique features and properties of which result from using traditional methods of production, they provide an element of cultural heritage of the region in which they are manufactured, and they are an element of identify for local community. To confirm the importance and popularity of the List it is enough to say that to-date over 1000 products have been listed.

### **Products protected in the European Union**

An opportunity which appeared before Polish farmers in the form of food quality policy implemented in the European Union is quite well used by them. This is proven by continuously increasing number of products applying for registration and geographical indications and traditional specialities. The sector of regional and traditional food has been developing in Poland quite dynamically and more and more producers want to produce quality foods. In order to address this, Rural Development Programme 2007-2013 provides special support measures for such farmers. The interest results also from the fact that quality food production, protection and promotion play a significant role in the European Union. The main goals of the EU food quality policy is to promote diversified agricultural production,



protection of products' names against abuse and imitation and help consumers understand a specific character of the products subject to registration. It is thanks to all the actions that our traditional tastes and high quality has been introduced to the European culinary heritage.

To-date, 36 names of Polish products have been registered in the EU system of protected geographical indications, protected designations of origin and traditional specialities guaranteed. Nine of them are registered as Protected Designations of Origin, 18 as Protected Geographical Indications and 9 in the category of Traditional Speciality Guaranteed.

### Regional and traditional products are registered as



**Protected Designation of Origin (PDO)** - quality of product or its characteristic properties should be mainly or exclusively related with that specific geographical indication and with specific natural and human factors, such as climate or local know-how.

Due to production, processing and preparation requirements, an entity applying for PDO must be very tightly bound with the region. The whole production process should follow on a specific geographical area, from which raw materials should also be acquired.

Polish products registered by the European Commission as PDO include cheeses (bryndza podhalańska – soft, rennin cheese, oscypek – smoked sheep cheese, redykołka – semi-hard sheep/ cow cheese in the shape of animals, hear or a spindle), fruit (wiśnia nadwiślanka – sour cherry),

honey (podkarpacki miód spadziowy - liquid or crystallised honey produced from honeydew, miód z Sejneńszczyzny/Łódzieszczyzny – polyfloral honey from Sejneńszczyzna/ Łódzieszczyzna region), fish (karp zatorski – carp, a hybrid obtained from cross-breeding), beans (fasola „Piękny Jaś” z Doliny Dunajca/ fasola z Doliny Dunajca –bean intended for human consumption, fasola wrzawska – climbing runner bean).

**Protected Geographical Indications (PGI)** means a name of a product, the quality, renowned character or other properties of which are a result of a given geographical origin. At least one of the stages of production of a given product takes place on the area to which its name refers. Polish products registered by the European Commission as PGI include honey (miód wrzosowy z Borów Dolnośląskich – heather honey, miód kurpiowski – nectar honey with a possible inclusion of honeydew, miód drahimski – buckwheat honey), bakery products (rogal świętomarciński – croissant coated with icing and chopped nuts, andruty kaliskie – round, thin waffles, obwarzanek krakowski – a ring-shaped bake product, kołocz śląski/kołacz śląski – a yeast cake with filling or with no filling), cheese (wielkopolski ser smażony – fried cheese form Wielkopolska, ser koryciński swojski – a ripened cheese made from raw whole cow's milk), fruit (truskawka kaszubska or kaszëbskô malëna – a strawberry, suska sechłońska - prune which has undergone drying, jabłka łąckie - apples, śliwka szydlowska - prune which has undergone drying and smoking, jabłka grójeckie - apples), beans (fasola korczyńska – large, white beans), meat products (kielbasa liwiecka – smoked sausage, made of high-quality pork, jagnięcina podhalańska – lamb meat) and bread (chleb prądnicki - brown bread made with fermented rye).



Truskawka kaszubska or kaszëbskô malëna – a strawberry, suska sechłońska - prune which has undergone drying, jabłka łąckie - apples, śliwka szydlowska - prune which has undergone drying and smoking, jabłka grójeckie - apples), beans (fasola korczyńska – large, white beans), meat products (kielbasa liwiecka – smoked sausage, made of high-quality pork, jagnięcina podhalańska – lamb meat) and bread (chleb prądnicki - brown bread made with fermented rye).



**Traditional Speciality Guaranteed (TSG)** means a traditional agricultural or food product which is acknowledged by the Community due to its specific character, i.e. a property or a set of properties, which differentiate such a product in a special way from other products of the same category. Such features may include taste, scent or specific raw materials used for production.

In order for an agricultural or food product to be listed in the register, it must be produced from traditional raw materials or must be characterised by a traditional composition or method of production.

Polish products registered by the European Commission as TSG include old Polish meads (półtorak, dwójniak, trójniak and czwórniak), camelina oil (olej rydzowy), stuffed dough (pierekaczewnik), and meat products (kielbasa jałowcowa – sausage with juniper berries, kielbasa myśliwska – smoked-meat sausage, kabanosy – long, thin sticks of dry sausage).

## Benefits of using PDO, PGI and TSG marks

Registration of a product name as a geographical indication, protected designation of origin or guaranteed traditional speciality guarantees that no one else within the European Union may use the registered name for the marketing of their products. The right to use a graphic sign and a registered name is granted exclusively to producers who originate from the registered territory and who produce their product according to specifications on a given geographical area. Granting such a mark protects producers against abuse of the product name and underlines the uniqueness of the product, and consumers are provided with reliable knowledge of the origin of products, their properties and traditional production methods.

## Verification and certification

An extremely important component of PGI, PDO and TSG system is ensuring high quality of the product, which is confirmed by verification check-ups. Verification of manufacturing, processing and preparation processes concerning the products registered as PGI, PDO and TSG is made upon a request of the producers by a voivodeship inspector of trade quality of agri-food products or by authorized certification bodies. Producers select a control body and bear all the cost of verification. The scope and frequency of verifications depend on the specificity of production process of a given product. Producers who manufacture their products according to registered specifications are provided with quality certificates, which serve as a confirmation for consumers that they buy a product of guaranteed quality.

## ORGANIC FARMING IN POLAND

Organic farming is one of the fastest growing agricultural sectors in the world, especially in the European Union. At the end of 1990s an increase of interest in this method of agriculture was noticed in Poland. In the beginning, organic farming was developing as a social movement. Then the Ministry of Agriculture and Rural Development started work on drafting legislation to regulate this sector. In 2004 – following the accession of Poland to the European union – the legal framework was substituted by the EU law. Financial support was introduced in relation to the cost of verification, followed by support to farms in the form of subsidies to the area of organic crops. The recent years of organic farming development in Poland feature constant increase of the number of organic farms, the area of organic crops as well as market increase.

### A bit of history

After WWII mass production of food increased dramatically, which contributed to a deficit of food variety and poor taste of natural foods. A number of taste enhancers and substances to improve technical parameters of production were used, along with measures to increase the shelf life of a product. As a consequence, organic food production systems started to gain on importance. These systems referred to the idea of biodynamic agriculture of the beginning of 20th century. Producers of this type of food paid attention that no chemicals, synthetic plant protection measures or antibiotics are used during production, so that food is manufactured naturally by environmentally friendly methods. They dubbed it 'organic farming' (in some countries the names: 'biological' or 'ecological' are used).

### A bit of statistics

According to the 2009 statistics, an average size of an organic crop area in Europe was approx. 8.6 million ha, which accounted for 4.7% of the total arable area. The biggest organic arable area was in Austria - 18.5%, Italy - 8.7% and Spain - 5.3%. In Poland in 2009 organic farming accounted for 2.4% of the total arable area, which ranked Poland in the 9th position in Europe. At the end of 2011 the area of organic farming in Poland exceeded 605 thousand ha, which currently accounts for 4% of the total arable area. Nearly 23500 farms were supervised by 10 authorized certification bodies. At that time 270 organic food processing plants operated in Poland. The value of annual organic food production in Poland exceeded EUR 100 million.

## Control and certification

The system of control and certification of organic farming, which was established in Poland, ensures all the consumers that the organic products are manufactured according to the requirements defined in organic farming regulations. This system enables product traceability at all the stages of production, preparation and distribution – from farm to table, including raw material production, through storage, processing, transport and sale to final consumer. What is important, the system guarante-

es that products marked as organic were produced according to the applicable legislation. In order to confirm this compliance, a special control and certification system was introduced. Each organic producer must be under control of the system bodies. The system includes:

- Minister of Agriculture and Rural Development, who authorises certification bodies, accredited for organic farming under the standard PN-EN 45011 to conduct verification, issue and withdraw certificates of conformity concerning organic production;
- Trade Quality Inspection of Agri-Food Products, which is a state body to supervise the authorised certifying bodies dealing with organic products.

In order to conduct effective supervision over certifying bodies and over the market for organic products, Veterinary Inspection, State Inspection for the Protection of Plants and Seeds and Trade Inspection are obliged to cooperate with the Trade Quality Inspection of Agri-Food Products;

- Polish Accreditation Centre (PCA) – grants accreditations and is responsible for accreditation of certifying bodies within the sector of organic farming.
- Certifying bodies authorised by the Minister of Agriculture and Rural Development to conduct controls, issue and withdraw certificates of conformity. As at 31 December 2010 there have been 10 certifying bodies. All the bodies are accredited by Polish Accreditation Centre.

A current list of authorised certifying bodies, including the scope of their authorisations, is available at: [www.minrol.gov.pl](http://www.minrol.gov.pl).

How to recognize organic products?

The term „organic”, „organic product” or „the product of organic farming” means that the product marked in this way was manufactured according to organic production methods by an entity who is supervised by a control system and who holds a special certificate issued to this end by an authorised certifying body. Products and foods produced within a transitional period (a period when conventional production is converted to organic production) are not yet deemed organic products and cannot be marked with an EU organic logo. Since 1 July 2010 there has been a new logo of organic production, which must be placed on all the packages of organic food, which were produced by the Member States' producers according to the EU control requirements concerning organic production. The use of this logo has been obligatory since 1 July 2012.



## INTERNATIONAL TRADE

### General information on international trade in agri-food products

As a consequence of the 2011 economic crisis, the dynamics of international trade of Poland expressed in Euros fell in comparison to 2010. However, international trade expressed in PLN increased in comparison to the previous year. Export returns amounted to EUR 135.8 billion, and import returns - EUR 150.5 billion. In comparison to 2010, exports increased by 12.8%, and imports by 12.1%. Negative balance of trade amounted to EUR 14.7 billion, against EUR 13.8 billion in 2010. Moreover, a difficult economic situation around the world resulted in the decline in international trade in agri-food products in 2011. The share of agri-food products in the exports from Poland declined insignificantly in comparison to the previous year and amounted to 11.1%, against 11.2% in 2010. The share of agri-food imports in the total imports did not change in comparison to the previous year and amount-

ted to 8.2%. Agri-food products are still important in the balance of international trade and in the payment balance of Poland. The most important factors to influence the amount of foreign trade in agri-food products in 2011 include, among other, increase of prices of agricultural products, which accounted for the increase in the trade value despite a decline in volume on certain markets, not very advantageous supply/demand relation on the Polish market and PLN depreciation towards EUR. In comparison to 2010, the value of 2011 agri-food exports increased by 11.8% to EUR 15.10 billion. Imports rose by 14.3% to EUR 12.48 billion. Positive balance of trade increased in comparison to the previous year (EUR 2.61 billion against EUR 2.59 billion in 2010). The performance was improved by significant drop in imports' dynamics in the second quarter of 2011. Trade exchange has good influence on the economic situation in many branches of agriculture and agri-food industry. Approx 27% of food industry production is estimated to have been exported. Moreover, in the conditions of declining domestic demand export counts as an important external outlet. High dynamics of foreign trade in recent years has resulted mainly from a reduction of administrative and customs constraints and opening to the eastern market (in 2008). However, the year 2011 witnessed further diversification of supply and sales markets. As far as exports, the importance of developing and eastern markets increased (CIS countries). A similar phenomenon has been noticed in imports – the role of developed countries (except the EU Member States) has been declining and the role of the developing markets has been increasing. On one hand, new sales markets are being sought, with greater potential for expansion, but on the other hand - cheaper supply markets are being sought for the purpose of imports.

Price conditions of international trade in 2011 were only slightly worse than in the previous year. Trade increase occurred in the conditions of weaker middle-year PLN/EUR exchange rate (by 3.1%) and slight increase in relation to USD (by 1.7%). One has to underline, however, that due to the PLN depreciation in the second half of 2010, in relation December 2010 and December 2011, Polish currency lost 12% in value in relation to USD and EUR. In the first half of the year, before PLN depreciation occurred, imports were dynamically increasing, which resulted in a reduction of trade surplus. In the second half of the year, though, export dynamics was halted a little, but imports dynamics fell nearly twice, as a consequence of which in the whole year 2011 positive balance of foreign trade in agri-food products improved. Apart from forex, the international trade was greatly influenced by an increase in transaction prices. Thanks to that – despite the volume decrease in many markets – the value of trade, especially in terms of exports, increased. Contrary to the previous years, no seasonal decline in trade was recorded in the fourth quarter of 2011. Such a drop was recorded only in December 2011. The share of agri-food exports in total exports counted in EUR declined slightly (by 0.1%), and as far as imports – it did not change and amounted to 8.2%. Agri-food sector has still been significantly important for Poland's trade balance. The surplus dramatically decreases general deficit in foreign trade and is an important factor of domestic market stabilization. Especially during a stagnation in domestic demand, exports of agri-food products account for an important source of proceeds from sales in the agri-food sector, as a significant portion of domestic production is sold abroad. This stimulates the economic situation in many sectors of agriculture and food industry. Between 2008-2010 approx. ¼ of production was exported against 13.7% before the accession to the EU.

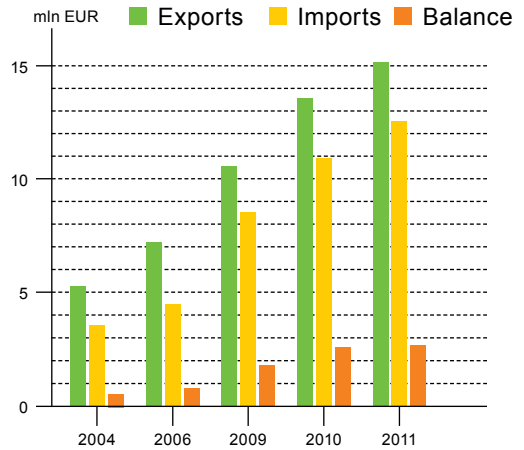


Fig. Foreign trade in agri-food products (in EUR million). Source: Foreign Trade in Agri-Food Products IERiGZ.

Share of agri-food products in:	2004	2005	2006	2008	2009	2010	2011
- total exports	8,8	10,0	9,8	9,8	10,2	11,2	11,1
- total imports	6,2	6,8	6,4	7,1	7,3	8,1	8,1

Table Share of agri-food products in total foreign trade of Poland (in %). Source: Foreign trade in agri-food products IERiGZ.

## Geographical structure of trade in agri-food products

The year 2011 saw an increase of international trade in agri-food products with all the group of countries, including in particular with the developing countries, the Balkan states, CIS and - to a lesser degree - with the EU Member States. Progress was seen in diversification of supply and sales markets, which is a consequence of the economic situation worldwide. Due to declining demand in the domestic market, entrepreneurs – exporters seek new sales markets or reinforce their position on the markets where the influence of crisis is not so visible, namely on the developing markets. In case of imports, this influence translates into the drop in purchases from the developed countries (except the EU Member States) and an increase of importance of the developing countries. Cheaper supply markets are sought. In 2011, the value of exports to EU-27 amounted to EUR 11.8 billion and was by 10.0% higher than in 2010. The share of EU in the exports of agri-food products from Poland dropped by 1.3%. Increase was observed in exports to the majority of the Member States, except Spain, where the exports declined by 4%. The value of exports to Germany, which has for many years been the biggest export market for Polish agri-food products, amounted to EUR 3.43 billion and was by 11.4% higher than in 2010. After a significant increase of the turnover in 2010, the dynamics of export increase to these countries dropped by nearly 60%. However, the value of the exports was higher and amounted to EUR 1.53 billion (increase by 11.0% in comparison to 2010). This value increase resulted primarily from a growing demand for the Polish products on the Russian market. Also, the dynamics of trade with Belarus was maintained at a high level; its volume and share (EUR 251.2 million and 1.7%, respectively) brings this country to the position of such Polish partners as Spain, Austria or Switzerland.

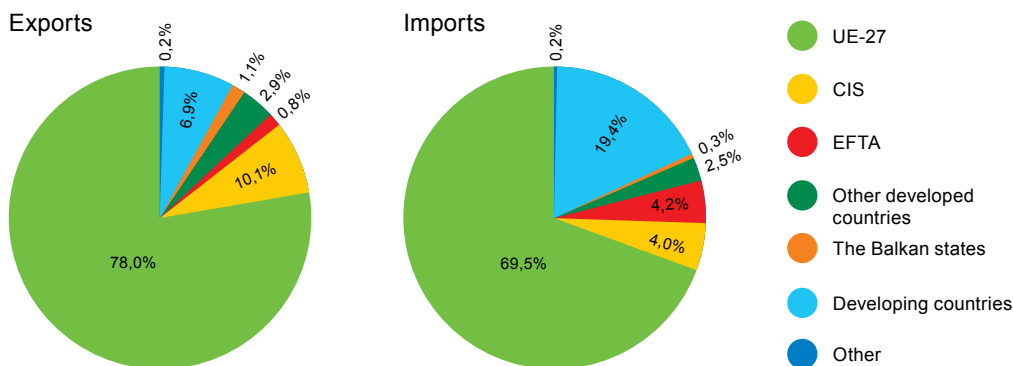


Fig. Geographical structure of exports and imports of agri-food products in 2011.  
Source: *Foreign Trade in Agri-Food Products - IERiGZ*.

The 2011 witnessed quite a huge dynamics of imports from EU-27. The value of those imports rose by 16% to reach EUR 8.68 billion. The greatest increase of imports in this group was from Estonia (by 46.2%), Lithuania (by 35.5%) and Belgium (by 32.8%). The maintenance of huge dynamics of imports was also greatly influenced by imports from big partners such as the UK (by 24.4%), Germany (by 22.2%), Czech Republic (by 18%), or France (by 18.5%). The value of imports from the developing countries rose by 12.1% to reach EUR 2.42 billion, but the imports from the developed countries declined in turn by nearly 10% (namely from EFTA by 9.6%) and from the other developed countries by 11.0%. A very huge increase was recorded in the imports from the CIS countries, from which goods were imported for the total value of EUR 498.1 million (increase by 62.7% compared to 2010). Imports from Ukraine rose by 74%, from Belarus by 69.0%, and from Russia by 38.5%. Imports from the Balkan states, despite the rise by 16.4%, are still insignificantly important for the Polish market supply.

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

In terms of value, foreign trade in agri-food products is dominated by agri-food products, the share of which in the total value of Polish food exports amounts to 85%. The share of processed products in agri-food imports is still high, although in comparison to 2010 it increased only slightly (to 69.8% against 69.3% in the previous year). Weaker demand in the developed countries resulted in stagnation, followed by a decrease in the volume of exports. The increase of transaction prices was offset by this factor, so as a consequence, in 2011 export value was increased. The market situation in Poland and unfavourable price conditions affected negatively plant products' exports in the first quarter of 2011. In the second half of 2011, the dynamics of plant product exports rose significantly, supported in addition by PLN depreciation against EUR. A totally different situation was observed on the market of animal products – the trade volume in the whole year decreased, but also in this case this factor offset the increase of transaction prices.

The 2011 export value of processed products increased by 16% to EUR 12.86 billion. Their import rose slightly (by 17.5%) to EUR 8.71 billion. A surplus in the trade in processed products increased to EUR 4.12 billion (3.68 billion in the previous year). Exports of agricultural products rose insignificantly (to EUR 2.08 billion against EUR 2.00 billion in 2010) which, in view of a high increase of imports (by 14.8%) resulted in increased trade deficit (from EUR 1.08 billion in 2010 to EUR 1.47 billion in 2011). Worsening results of foreign trade in agricultural products were offset by improved results in terms of processed products. For a number of years, Poland has been importing agricultural products which are not cultivated in its territory (citrus fruit, tropical fruit) and raw materials which, following processing, are often exported (coffee, tea, cocoa).

There were no major changes in the commodity structure of agri-food exports in comparison with the previous year. The share of animal products increased by 0.7% (by 40.8%). The share of plant products decreased by 0.4% to 53.4%. The decrease was recorded in the share of oil plants, vegetables and processed vegetables, and increase was recorded in the share of coffee, tea and cocoa. In the group of animal products decline was recorded in the share of live animals, and increase was recorded in the share of meat and meat products and – to a lesser degree – milk products.

The dynamics of imports of animal products declined by half in 2011. At the same time the increase in the imports of oil products was significantly higher. From among plant products, the greatest increase was recorded in the imports of sugar (by 96.7%), oilseeds (by 73.2%) cereals (by 65.2%), as well as potatoes and potato products (by 46.5%) and margarine (by 35.6%).

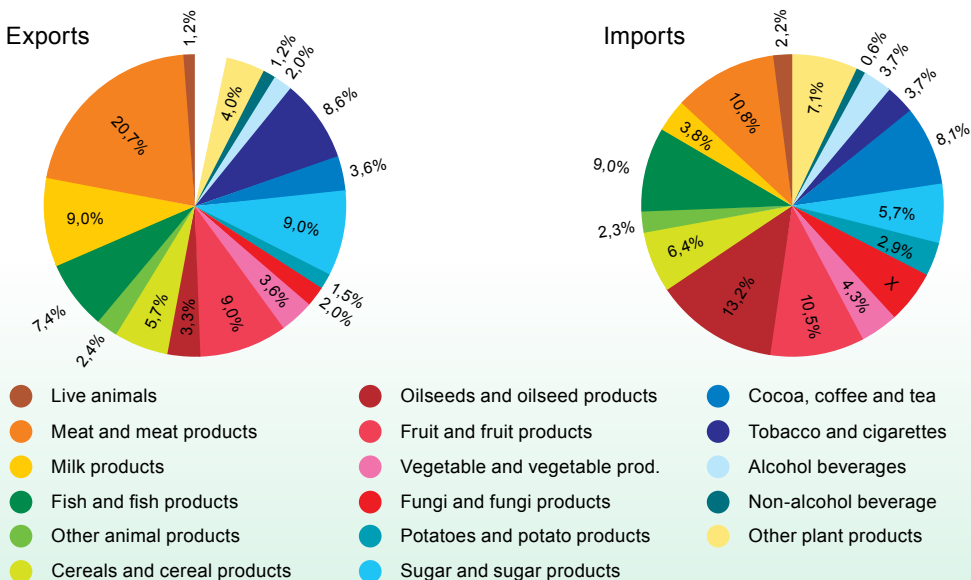


Fig. Commodity structure of exports and imports of agri-food products in 2011. Source: *Foreign Trade in Agri-Food Products IERiGZ*.

## Foreign trade in selected agri-food products

### Cereals

Polish cereals feature good quality, high technological utility for milling and baking, and fulfil health security requirements, thank to which they are sought after by foreign recipients. Wheat is still exported mainly to Africa (Algeria, Tunisia and Morocco), but in recent years also to Germany, Holland and Spain. Rye is exported to the EU, especially to Germany, Holland and Finland, and maize mainly to Germany, Denmark and Lithuania. Barley has, in recent years, been exported mainly to Germany and Tunisia. Export of highly processed cereal products has been developing fast. Natural and healthy products, praised by consumers also for their taste and dietetic value, are competitive on the international market. The biggest recipients of bakery products include Germany, Czech Republic and Hungary, and in case of cereal flakes and prepared grains – Russia, Germany, France and Turkey. Pastas are sold mainly to the UK and Germany, and to the USA. This is followed by export of primary processed products, including the flagship product – wheat gluten, which is exported traditionally to the USA who are its dominating importer. Gluten is sold also to Thailand and Mexico, and to the EU, but only in marginal amount. The importance of Germany and the UK as the main markets for wheat flour and wheat-and-rye flour has been growing. Groats and farina are sold primarily to Belarus and Germany. Within 10 months of the 2011/2012 season, 1.4 million tons of cereal grain was exported from Poland (including i.a. 660 thousand tons of wheat, 420 thousand tons of maize, 118 thousand tons of barley, 87 thousand tons of rye), i.e. approx. 5% less than in the same period in the 2010/2011 season. Cereal grains were sold primarily to Germany (1 027 thousand tons) and Holland (127 thousand tons), Ireland (79 thousand tons) and Saudi Arabia (55 thousand tons). In the marketing year 2011/2012, smaller cereal stock than in the previous years and higher cereal prices than in Poland's southern neighbours contributed to maintaining a high level of imports. During 10 months of the 2011/2012 season (i.e. July 2011 – April 2012) grains imports were by 36% higher than a year before and amounted to 1.3 million tons (of which wheat accounted for 57%, maize 24%, and barley 13%).

### Pigmeat

According to IERiGŻ, export of live animals, meat and processed meat reached 520.2 thousand tons of product weight and was over 1% higher than in 2010, and proceeds from such exports increased by 20% (to EUR 1013.3 million). Negative balance of trade in pigmeat in 2011 amounted to EUR (-) 321.7 million, which was by approx 1% less than in 2010. Exports of pigmeat amounted to 309.8 million tons by products' weight and was by 49.2 thousand tons higher than a year before. In 2011, the greatest increase of pigmeat exports (by 43.8 thousand tons) targeted the third countries. Increased imports were recorded to EU-27 (by 5.4 thousand tons), and to the Czech Republic, Italy and to Latvia. They offset the decline in exports to i.a. Germany, the UK, Holland and Hungary. Exports of pigs amounted to 109.7 thousand units and was by approx. 60% smaller than in the previous year. Imports of pigmeat products rose from 605.3 thousand tons in 2010 to 675.5 thousand tons in 2011. By 14% more money was spent on these purchases than in the previous year. A rising trend in the imports of pigs to Poland was maintained in 2011 at a high level - 2.7 million units were imported, and since 2008 these imports have risen almost 2.5 times. More pigs were imported from Denmark and Germany, but less from Holland. 88% of pigs imported from Poland originated from the three countries. A negative balance of trade in pigmeat amounted to EUR 526.3 million and was by EUR 15.8 million lower than in 2010, of which the trade with EU-15 increased by EUR 114 million (up to EUR 977.7 million). Since 2008 the deficit in pigmeat trade with EU-15 increased by approx. 20% and it was partially offset by increased exports to third countries.

### Beef

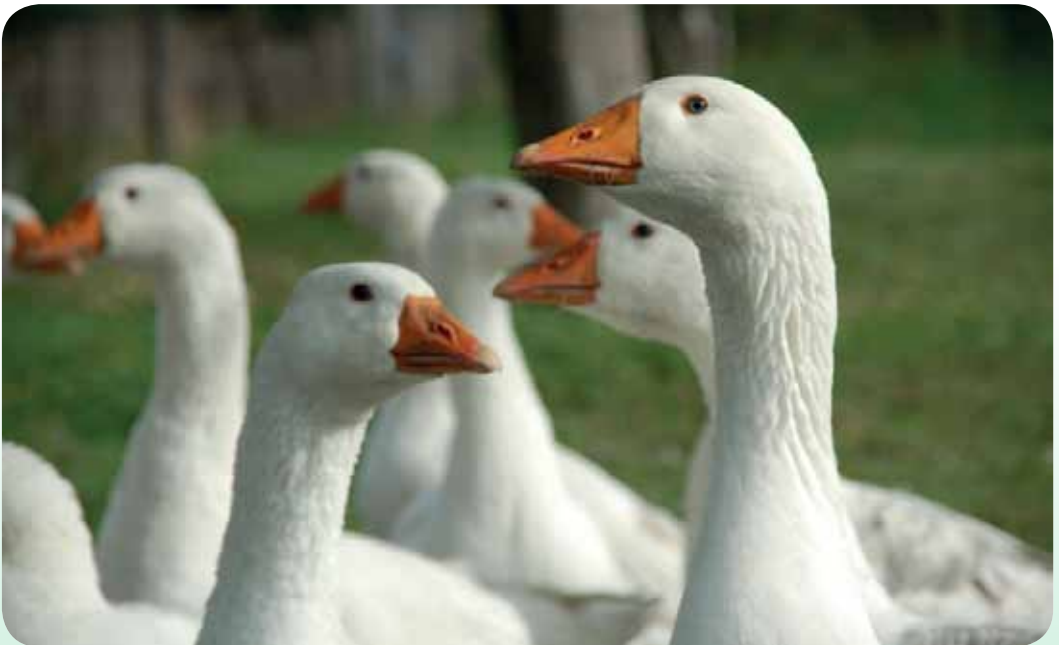
In 2011, exports of live animals, meat and processed beef products amounted to 313.6 thousand tons by product weight, which was by 3% less than in the previous year. Due to very high prices of beef, the value of the 2011 exports rose from EUR 909.9 million in 2010 to EUR 981 million. There was a 24% drop in beef exports to the EU-27, including to its main recipients – Italy, Holland, Germany and Spain. However, exports of beef to the third countries, including Turkey which, due to granted customs preferences and bigger sales opportunities, become one of more important export markets, increased more than twice.

As a consequence of smaller meat purchases, the imports of beef products dropped by 3%, but its value rose (from EUR 67.3 million in 2010 to EUR 72.9 million in 2011). Poland imported beef mainly from Ireland, Czech Republic, the UK and Germany. Beef cattle, though, was imported mainly from Germany, Slovakia and the Czech Republic. Beef import prices rose by nearly 15%, and beef export prices were also very high. As a consequence, a positive balance in foreign trade in live cattle, beef and beef products rose by approx. EUR 70 million (to EUR 98.1 million).

## Poultry

In the entire 2011, Polish exports of poultry meat amounted to 481.5 thousand tons of product weight and were by over 5% higher than in 2010. In 2011 export prices of poultry rose by 15%, as a consequence of which proceeds from exports of poultry products rose by nearly 22%. As a result of greater purchases of live poultry the imports of poultry products were by nearly 9% higher (rose to 93.4 thousand tons), and the value of those imports was by over 13% higher than in 2010. Positive balance in foreign trade in poultry was by EUR 165.8 million higher than in the previous year. The 2011 exports of poultry meat exceeded those of 2010 by 20.6 thousand tons. The prices of poultry meat in Poland were still significantly lower (by EUR 50.4/100 kg) than the average EU-27 prices, which facilitated exports. The value of exports to EU-27 increased by 24% in comparison to 2010 because of a significant rise in prices on these markets. In comparison to the previous year, more poultry meat was sold to the UK, Holland, France and Spain. The previous year's levels of exports were recorded in case of the Czech Republic and Germany, and in case of third countries exports declined by over 5%. This decline was offset by increased prices on these markets (by 6%) so that in terms of value the 2011 exports remained at the 2010 levels. Exports of live poultry were lower than the year before by 2.8 million units. It was mostly the case with the EU-27, including a significant decline in case of EU-15. In case of CIS, exports of live poultry increased by 400 thousand units. As a consequence, the share of EU-15 in the value of live poultry exports declined from 39% in 2010 to 28% in 2011, but the share of CIS in those exports increased (from 50 to 55% in 2011).

High prices of poultry meat and declining PLN in relation to EUR did not facilitate import increase in 2011. As a consequence, the imports of poultry meat declined in 2011 by 2.1 thousand tons to 31.1 thousand tons. As in the previous years, poultry meat was imported to Poland for further processing.





## AGRICULTURE SUPPORT POLICY

### STATE SUPPORT

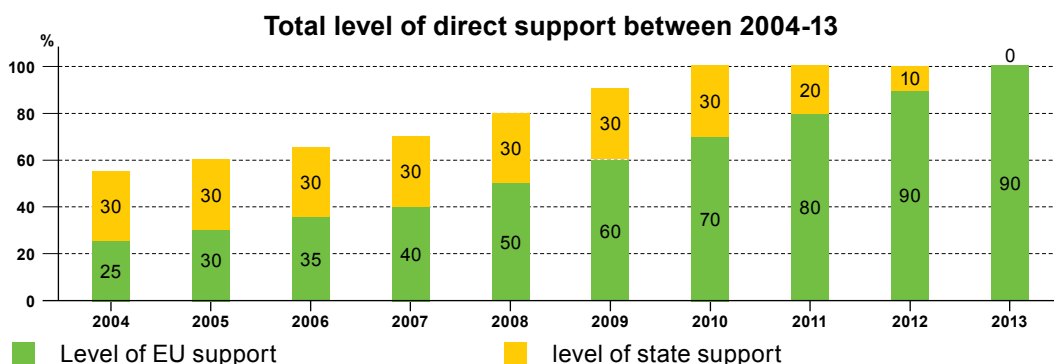
State support is granted by ARMA in the form of interest rate support for various types of loans, guarantees and sureties of payment of preferential credits, investment credits and emergency loans, sureties on payment of student loans, co-funding of cost borne by agricultural producers for handling dead animals, co-funding costs borne for preparing an application for registration of geographical designations and indications of primary agricultural products. Since the beginning of its operation ARMA has paid out PLN 18.5 billion in support, of which PLN 833.9 million in 2011.

### DIRECT PAYMENTS

Poland, as the majority of the new EU Member States, applies Single Area Payment Scheme (SAPS), under which single area payments are made, as well as the system of Complementary National Direct Payments (CNDP), which are paid out in the form of extra payment, decoupled payment to hops, coupled and decoupled payments in the sector of potato starch, decoupled payment for tobacco and animal premiums.

Moreover, Polish farmers can count on other premiums, i.e. sugar premium, tomato premium, soft fruit premium, and since 2010 also for special support in the form of cow premium, sheep premium and special premium for leguminous and fine seed papilionaceous plants.

The level of provided support has been rising year by year, according to the negotiated timetable for convergence with the level of support applied in the EU-15 as at 30 April 2004 (phasing-in principle), until reaching 100% (in 2013). A maximum level of support from the state and EU budget in particular years has been shown in a figure below.



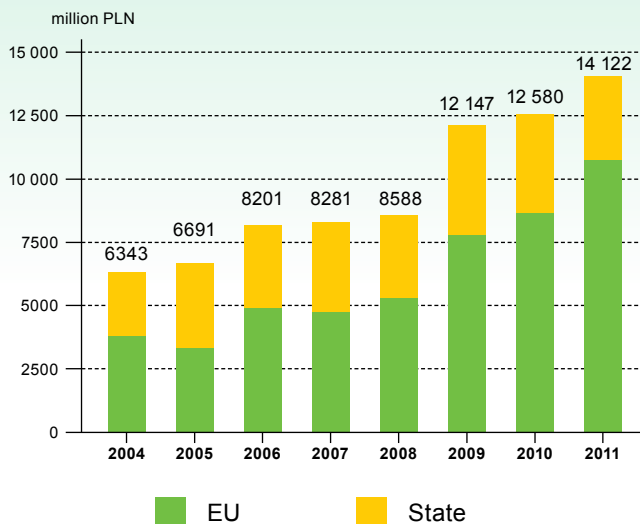
Source: MARD.

However, it has to be pointed out that state budget top-ups are paid every year at a maximum amount allowed by the EU law. Also in 2011 this approach was continued and direct support amounted to 100% of a full level of support defined for Poland (80% from the EU budget + 20% of state budget top-ups). Such an approach is planned to be sustained. However, due to gradual increase of the EU budget share (according to the above mentioned phasing in principle) in 2012 the maximum amount of the state top-up may amount to 10% of the national envelope (by 2010, the top-ups amounted to 30%).

Since the moment of Poland's accession to the EU, Polish farmers were provided by the Agency of Restructuring and Modernization of Agriculture with the total of approx. PLN 77 billion (as at 30.06.2012), both from the EU budget and as in the form of state budget top-ups, of which over PLN 14.12 billion in 2011.

Information about the amount of funds transferred to the farmers in the form of direct support between 2004 – 2011 has been provided below.

### Level of direct support provided by ARMA between 2004-2011 in division into EU budget support and state budget top-ups



Source: MARD based on ARMA figures.

At the same time, one has to underline that due to the fact that the significant portion of direct payments comes from the EU budget, they are originally agreed in Euros, i.e. in the Community currency. The rate is calculated into PLN against exchange rates quoted in the Official Journal of the European Union. The operating deadline for the exchange rate is the last exchange rate fixed by the European Central Bank before 1st October of the year for which the support was granted.

## RURAL DEVELOPMENT PROGRAMME 2007-2013 (RDP 2007-2013)



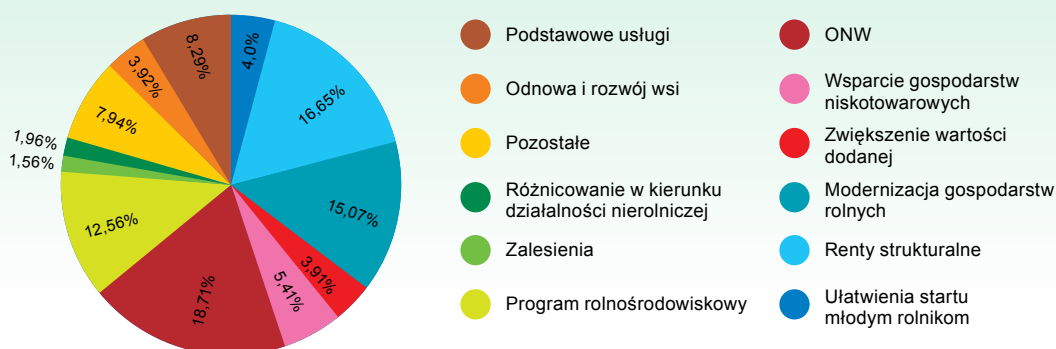
Europejski Fundusz Rolny  
na rzecz Rozwoju Obszarów Wiejskich



Rural Development Programme 2007–2013 (RDP 2007-2013) is a document which defines the scope and form of support to be provided for rural areas in Poland in the subsequent programming period, i.e. 2007-2013. A lion's share of measures implemented within RDP is a continuation of measures implemented between 2004-2006 under Rural Development Plan 2004-2006, which implemented in Poland the so called CAP accompanying measures and Sectoral Operational Programme „Restructuring and Modernization of Food Sector and Rural Development, 2004 – 2006”, which implemented cohesion policy goals.

RDP 2007-2013 was approved for implementation on 7 September 2007 by virtue of a decision of the Commission of European Communities No CCI2007PL06RPO001. Similarly as the programmes implemented earlier, RDP 2007–2013 is funded from the EU budget (European Agricultural Fund for Rural Development – EAFRD) as well as from the state budget. The total public support under the Programme exceeds EUR 17.4 billion. Allocation of the EU funds exceeds EUR 13.4 billion. In fact there is approx. EUR 14.4 billion of state funds to be divided among those in need, as nearly PLN 3 billion accounts for the 2004-2006 commitments undertaken under Rural Development Plan 2004-2006.

## Payments from public funds extended to beneficiaries of actions implemented under RDP 2007- 2013 – situation as at 2 November 2012 r.



Source: Department of Rural Development – MARD, based on ARMA monthly reports.

	Number of applications filed	Number of issued decisions/ contracts executed	Paid support in PLN million/billion
Vocational training for those employed in agriculture and forestry sector	390	85	46,02 million
Young farmers' support	29 240	23 459	1,57 billion
Structural pensions	28 537	19 942	6,56 billion
Agricultural advisory services rendered for farmers and forest holders	49 310	40 091	66,5 million
Farm modernization	79 015	56 014	5,93 billion
Increase of value added of basic agricultural and forestry production	2 844	1 454	1,54 billion
Improvement and development of infrastructure related with development and adjustment of agriculture and forestry sectors	604	467	461,70 million
Restoration of agricultural production potential destroyed as a result of natural disasters and implementation of appropriate preventive actions	4 653	2 895	168,93 million
Participation of farmers in quality food programmes	24 031	19 722	13,75 million
Information and promotion actions	56	15	2,58 million
Support of sustenance farms - 2004-2006 commitments	-	-	2,13 billion
Producer groups	895	857	318,35 million
Support of farming in the mountains and other LFAs (2007, 2008, 2009, 2010, 2011, 2012 campaigns)	4 456 073	4 214 412	7,37 billion
Agri-environmental scheme	598 773	468 946	4,95 billion
Afforestation of agricultural land and non-agricultural land	17 755	10 988	613,62 million
Restoration of forestry production potential destroyed as a consequence of natural disaster and introduction of preventive measures	392	281	157,19 million
Diversification to non-farm activities	28 999	13 206	770,54 million
Establishment and development of micro-enterprises	31 252	9 368	694 million
Basic services for rural economy and community	4 316	3 156	3,27 billion
Rural restoration and development	7 700	5 705	1,54 billion
Implementation of Local Development Strategies	39 417	16 654	608,21 million
Implementation of cooperation projects	363	254	4,01 million
Local Action Groups	1 018	997	229,56 million
Technical Assistance	1 840	1 653	366,58 million
<b>TOTAL</b>	<b>5 407 473</b>	<b>4 910 621</b>	<b>39,39 billion</b>

Table. Handling applications filed under RDP 2007-2013. Source: Agency for Restructuring and Modernization of Agriculture (situation as at 2.11.2012).

According to the figures as at 2 November 2012, since the start of RDP implementation, the total of PLN 39.39 billion of payments have been paid, of which approx. PLN 29.82 originated from the European Agricultural Fund for Rural Development (EAFRD), which accounts for 54.56% of EAFRD allocations intended for the implementation of RDP 2007-2013. The biggest amount of payments were paid under the measure „Support for mountain farming and other LFAs” (approx. 18.71% of all payments), „Structural pensions” (approx. 16.65% of all payments), „Modernization of farms” (approx. 15.07% of all payments) and „Agri-environmental scheme” (approx. 12.58% of all payments).

## Assessment of RDP 2007-2013

According to the Council Regulation No. 1698/2005, in 2010 all the EU Member States made a mid-term evaluation of rural development programmes for the years 2007 – 2013. The scope of evaluation was indicated by European Commission guidelines included in a document: Guidelines on the mid-term evaluation of the rural development programmes).

The evaluation summed up the progress in the implementation of RDP 2007-2013 and presented the results of the implementation of specific measures as well as the whole Programme, including the Programme's contribution in the implementation of the priorities defined at the EU and state level. Moreover, the evaluation is a major contribution to a discussion on the future of common EU policies, which is about to start.

Mid-term evaluation included four major evaluation modules.

**Module A** – Re-evaluation of the Programme strategy targets,

- Analysis of the sector, selected targets, priority axes and measures;
- External cohesion – in the context of public interventions in the sector following the Programme approval;
- Internal cohesion – in the context of distribution of allocations to particular measures and their assumed contribution in the achievement of the Programme objectives;

**Module B** – Evaluation of progress in the implementation of particular measures of the Programme and the Programme as a whole, as well as of targeting and effectiveness of programme guidelines,

- Evaluation of programme guidelines, i.e. terms and conditions of granting support under particular Programme measures in the context of objectives of these measures, targeting (i.a. a method of defining beneficiary/target group, scope or conditions of granting support, access criteria, method of selecting operations, budget guidelines – the amount of support, total budget for a measure, principles of distribution of funds among voivodeships;
- Institutional analysis of targeting and effectiveness of institutional, organizational and procedural solutions;
- Analysis of the situation in funds' contracting and spending, account taken of differences among voivodeships;
- Analysis of the Programme measures according to types and objectives of operations, characteristics of beneficiaries and spatial distribution.

**Module C** – Evaluation of the Programme effectiveness,

- Evaluation of compliance of effects obtained and objectives assumed;
- Analysis of effectiveness and efficiency of measures;
- Analysis of product and result indicators in the context of the Programme guidelines.

**Module D** – Evaluation of expected social and economic effect and the influence on Community priorities and expected durability,

- Analysis of the level of target achievement;
- The level of the Programme's contribution to the implementation of Community priorities in relation to the revised Lisbon Strategy for growth and employment in relation to creating jobs and improvement of growth;
- The level of the Programme's contribution to the achievement of the objective of social and economic cohesion in relation to bridging the gaps between the EU citizens and reducing territorial disparities.

The author of evaluation answered 101 evaluation questions in the final report, having made a detailed analysis of monitoring figures, legislative acts and regulations, programme documents and questionnaires answered by RDP beneficiaries (over 4100 interviews), the staff of the Managing Institution and Implementing Institutions (over 1100 interviews) and agricultural and agri-environmental advisors (over 1000 interviews).

## Summary of evaluation results

The mid-term review evaluation confirmed the validity of the assumed strategy, also in the changed socio-economic situation of Poland. The Programme is implemented horizontally, which streamlines legal and institutional system. This is advantageous from the point of view of management. At the same time measures were provided to guarantee the Programme's adjustment to the needs and special features of particular voivodeships. It was found that RDP was internally and externally coherent in the context of links with cohesion policy. RDP implemented in Poland includes the total of 23 measures. The evaluator has recommended that in the future their number be reduced. The analysis of the Programme currently under implementation has not revealed an urgent need to eliminate any of them. The evaluator made a review of the Programme implementation system. It was found that the Programme was adequate to the needs, although quite complex. No recommendations were, however, formulated as to its modification. The evaluator pointed out to a long process of accreditation, which results in significant delays in the start of the Programme implementation. It was also pointed out that setting a timetable of recruitment should enable beneficiaries to prepare applications earlier, to avoid work load in implementing institutions, which should effectively translate into shorter period of application handling. The National Rural Network was praised as a valuable instrument of rural development promotion and exchange of experience. A further improvement of the formula of its operation was recommended.

While evaluating expected social and economic effect and its influence on the Community priorities, the evaluator notes that RDP funds intended for instruments which directly affect the improvement of agricultural and forestry sector's competitiveness in Poland account for above 20% of the total Programme amount, and the support obtained helps improve competitiveness. RDP, built on new strategic priorities for the European Community, creates a long-term vision of development which is enshrined in sustainable development of Poland, while preserving its different landscape and nature and skilful use and management of environmental resources.

A model simulation of RDP priorities (competitiveness of agricultural and forestry sectors, improvement of natural environment, improvement of living conditions in rural areas) indicates that RDP financial aid contributes the least to the third priority, namely improvement of living conditions in the rural areas. The evaluator holds that this is an evidence that the actual distribution of funds between measures for implementing the first two objectives has been better targeted than in the case of the third one. Such a method of allocation seems to be justified taking account of a fact that RDP is mainly a sectoral programme targeted at the development of agriculture, and the improvement of living conditions in rural areas is also supported by other EU structural programmes



## FISHERIES

Polish internal waters cover the area of 2005 km<sup>2</sup>, and the territorial waters cover 8682 km<sup>2</sup>.

The coastal strip of the Baltic Sea currently includes 36 gminas within 18 poviats in three voivodeships: Pomorskie, Zachodniopomorskie and Warmińsko-mazurskie.

The Baltic Sea is fresh pool, in which average salinity decreases with the distance from the Danish straits. Polish sea area is deemed rich in fish stock.

Polish deep sea fisheries may be generally divided into two basic sectors: Baltic fisheries (the lion's share of fleet) and ocean fisheries. From among five basic species of the Baltic fish (cod, herring, sprat, European flounder, salmon), fishing of cod is particularly important for the Polish fishermen.

### Baltic and ocean fisheries

Polish fishery sector is regulated by the EU regulations – there are fishing quotas which are fixed every year by the EU Council.

In relation to the Baltic Sea, the fishing possibilities in the ocean fisheries sector for 2012 are set out in the Council Regulation (UE) No 1256/2011 of 30 November 2011 fixing for 2012 the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Baltic Sea and amending regulation (EU) No 1124/2010.

Fishing possibilities in the deep-sea fisheries sector for 2010 are set out by the following regulations:

- COUNCIL REGULATION (EU) No 44/2012 of 17 January 2012 fixing for 2012 the fishing opportunities available in EU waters and, to EU vessels, in certain non EU waters for certain fish stocks and groups of fish stocks which are subject to international negotiations or agreements.
- Council Regulation No 43/2012 of 17 January 2012 fixing for 2012 the fishing opportunities available to EU vessels for certain fish stocks and groups of fish stocks which are not subject to international negotiations or agreements.
- Council Regulation No 1225/2010 of 13 December 2010 r. fixing for 2011 and 2012 the fishing opportunities for EU vessels for fish stocks of certain deep-sea fish species. The 2011 catches in the Baltic Sea, as in the year 2010, oscillated around 110 thousand tons. Profitability of the Baltic Sea fisheries, mainly pelagial fish (sprats and herrings) improved significantly. The total 2011 deep-sea catches amounted to 69.1 thousand tons, and the majority of that amount included catches in the waters of Western Africa.

The 2012 fishing possibilities concerning some Baltic fish species were reduced. In 2012 the International Council for the Exploration of the Sea (ICES) announced that the stock of pelagial fish declined, so general fish quotas concerning sprat and herring within the central basin were reduced for 2012. In relation to 2011 the sprat quota was reduced by 22%, and the herring quota by 27%. Salmon quota was reduced by 51%. However, in 2012 the cod quota in the Eastern Baltic was increased by 15% in comparison to 2011, due to increase of the stock, and by 13% in the Western Baltic. The quota of herring caught in the Western Baltic also was increased by 32%.

The main regions of ocean fishing in 2012 included the areas managed by North Eastern and Atlantic Fishing Committee (NEAFC), as well as the area of the North Sea, Norwegian waters and the waters under the jurisdiction of Islamic Republic of Mauritania and Namibia. If the protocol to a fishing agreement with Morocco is renewed, Polish fleet will be able to fish on the waters belonging to the country. The main species caught by Polish deep-sea ships include cod, coalfish, redfish, halibut, mackerel, scad and round sardinella. In 2012 the majority of fishing quotas granted to Poland was used by the North-Atlantic Producer Organization, by fishing or exchange of fishing quotas, mainly with Germany, the UK, Latvia, Estonia and Spain. Some exchanges were subject to complicated package negotiations conducted by our administration in cooperation with the sector.

## Infrastructure of sea fisheries

In Poland there are 64 ports, in which fish from the Baltic catches is unloaded, including 11 ports administratively authorized to handle the unloading of cod in the amount exceeding 750 kg of live weight (Władysławowo, Hel, Jastarnia, Łeba, Ustka, Darłowo, Kołobrzeg, Dziwnów, Gdańsk – Pleniewo embankment, and Świnoujście). Deep-sea fishing is supervised by Circuit Inspectorates of Deep-Sea Fisheries located in Gdynia, Słupsk and Szczecin; they include 14 local inspectorates.

## Infrastructure of inland water fisheries

Inland water fishing is regulated by Inland Water Fisheries Act of 18 April 1985 (Polish Journal of Laws [Dz.U.] of 2009 No. 189 item 1471, as amended). Inland fishing management is also subject to the provisions of water law, civil law, environmental law, natural protection law, animal health protection law and the provisions concerning the fight of animal diseases.

The area of inland waters in Poland is approx. 580 thousand ha, of which lakes include 280 thousand ha, rivers 140 thousand ha, artificial dams 55 thousand ha, ponds 65-70 thousand ha and other water facilities 40 thousand ha. Of the total area of ponds in Poland, estimated to cover almost 70 thousand ha approx. 50 thousand ha is used (70%). Professional fish breeding and production is pursued by approx. 600 entities which market their quality aquaculture products. This number includes approx. 400 farms specialized in carp breeding, which make use of ponds, the total area of which exceeds 50 ha, and approx. 200 specialized and technologically advanced trout farms. Fish production is also conducted in approx. 10 thousand of farms, for which aquaculture is only one of several agricultural activities. The majority of fish farms breed more than one fish variety, which is aimed at diversification of income. Apart from common carp or rainbow trout the following other species are bred and kept: tench, silver carp, bighead carp, grass carp, sturgeon, catfish, zander, brook trout, salmo trutta m. fario, salmo trutta m. lacustris, salmo trutta m. trutta, Atlantic salmon. Some farms specialize in the production of stocking material. Apart from ponds, also other waters may be, and usually are, used as fishing grounds. The majority of them is included in public inland waters, surface waters and is divided into fishing circuits. Thus, fishing circuits are established on lakes, rivers and dams. In Poland there are 2,370 fishing circuits, which are used by approx. 800 entities. Some specialized entities authorized to catch fish use several or more fishing circuits. In fishing circuits one can catch over 30 species of fish, including mainly common bream, common roach, northern pike, common carp, vendace, perch, tench, zander, crucian carp and eel. Fishing circuits are given for use based on a tender. Tenders are open, so various entities may be authorized to fish in a given circuit: individuals, limited liability companies, social organizations or other legal entities.

## Fish market

The supply of fish, processed fish and shellfish to the Polish market amounted in 2011 to 462.4 thousand tons and was by 7.2% lower than in the previous year. This was influenced mainly by a reduction of imports (by 2.5%), and a simultaneous increase in exports (by 4.1%). Domestic catches increased at that time by 5.3% under the influence of bigger catches of ocean ships and improved situation in inland fishing. The catches of Baltic fish were maintained at the previous year's level. In 2011 the market was influenced first of all by rising prices of fish worldwide. As a consequence, internal demand was significantly reduced, and the increase of production costs resulted in worse economic and financial situation in fish processing sector.

Baltic fish catches were maintained in 2011 at the level of the previous year and amounted to 110.8 thousand tons. Reduced catches of sprats, cods, European flounder and salmons were fully offset by record catches of herrings. The level of use of fishing quotas available to Poland increased in comparison to the previous year by 16% to 76%, but it resulted mainly from the ceiling decline. The use of quotas for particular fish species varied – from 100% in case of herrings to only 40% for salmons. The profitability of Baltic catches significantly improved in 2011, especially in case of sprat and herring, where the increase in the selling prices in the harbour exceeded 40%. In comparison to the previous

year, the ocean catches of fish and shellfish significantly increased (by 14% to 69 thousand tons), with changing structure of species caught and fishing areas. Following over 15% decline in catches and production in 2010. In 2011 the supply of inland water fish increased by 5.4% to 45.0 thousand tons. Again, the production of fish in aquaculture declined and increased catches of trout did not offset the reduced production of common carp. Significant increase was noted in professional lake catches and amateur angling.

The consumption of fish, processed fish and shellfish in 2011 reached 12.01 kg per capita (as equivalent of live weight) and was by 8.0% lower than the year before. Demand for inland water fish and shellfish declined the most (approximately 15%), and the consumption of sea fish declined less (by 5%). As a result, significant modifications were noticed in consumption structure, in products as well as in species. The share of inland water fish dropped by 2.2% to 23.8%, and the importance of sea fish rose by 1.7% to 74.2%. Pollock was the most often consumed in Poland in 2011. Its consumption rose in comparison to the previous years. The consumption of the previous year's leader – herring, dropped by 25%. The decline in fish and shellfish consumption was noticed in all types of households.

There were manifold changes in the 2011 international trade in fish. Increased ocean catches and as a consequence – the increase of trans-shipments as well as record exports of processed herring had effect on the increase of exports volume (by 4.1% to 512.5 thousand tons of live weight), and the decline of the internal demand resulted in reduced imports (by 2.5% to 758.5 thousand tons). Due to very high prices of fish worldwide the increase of exports in terms of value was by 3% higher than in terms of volume, and the cost of imported fish did not change in comparison to the previous year. The trade value exceeded, in terms of both exports and imports, the level of EUR 1.1 billion. Having significantly improved the unfavourable balance of trade exchange Poland remains a big net importer of fish, fish products and shellfish. At the same time, it is a big exporter of processed salmon and herring. In 2011, the production of fish, processed fish and shellfish in huge fish processing plants amounted to 312.5 thousand tons, and was by 2.8% lower than in the previous year. Following the increase in the processing volume in Q1 by 7.4%, in the second half of the year, a visibly worse situation in the trade was noticed and the production was reduced by 11.2%. The decline in domestic demand was not offset by increased exports. In comparison to the previous year, it was only the production of highly processed products which increased – mainly of tins and preservations, which accounted for the increased share of this product group in the processing structure by 6.1% to 57.4%. In 2011, the production of salted and smoked fish was reduced the most.

In view of jumping increase of the cost of production and slight increases of sales prices, the decline in domestic demand resulted in significant economic and financial decline of the fish processing sector. Despite nearly 18% increase of the value of sales revenues (to PLN 6.6 billion), the branch net profits dropped by 30% to PLN 103 million. The main source of revenues was export sale, the 2011 share of which in the revenue structure was 64% - by 5% more than a year before. Over 26% firms did not generate profit, and their revenues accounted for 22% of sales of the whole sector, against 16 and 12%, respectively, in the previous year. The last two years saw an increase in investment expenses in fish processing sector.

	2009	2010	2011a	2012 P
Deep sea catches	212,1	170,8	179,9	163,0
Including: Baltic catches	131,4	110,1	110,8	100,0
Ocean catches	80,7	60,7	69,1	63,0
Inland catches and aquaculture	50,5	42,7	45,0	47,4
Total domestic catches	262,6	213,5	224,9	207,0
Imports	731,6	778,3	758,5	755,0
Export	493,9	492,1	512,5	530,0
Supply of consumption fish on the domestic market	499,5	498,5	462,4	428,4

<sup>a</sup> not final figures, <sup>b</sup> the supply of fish to the market does not take account of the ocean catches of fish which were processed to fish meal and were not intended for consumption (in 2009 – 0.8 thousand ton, 2010 – 1.2 thousand tons and in 2011 – 8.8 thousand tons), P - forecast

Table The Fish and shellfish in Poland (thousand tons of live fish).  
Source: MIR-PIB figures and IERIGZ estimates based on IRS figures.



In 2011 fish, processed fish, and shellfish belonged to that group of food the prices of which grew the fastest. Average retail prices rose in comparison to the previous year by 6.2%, the greatest increase being recorded in the branch of inland water fish and salted fish (by approx. 10%), and a lesser degree was recorded in case of shellfish and preservatives (by 2.4%). Significant increase of meat prices only slightly worsened price meat vs. fish price relations – to the detriment of fish.

## FISHERIES SECTOR SUPPORT POLICY

Polish fisheries sector benefited from funds under a Sectoral Operational Programme “Fisheries and Fish Processing 2004–2006”, which ended on 30 June 2009 and Operational Programme „Sustainable Development of Fisheries Sector and Coastal Fishing Areas 2007–2013” (OP FISH 2007–2013), which was approved by the European Commission in October 2008. The Agency for Restructuring and Modernization of Agriculture is the Paying Agency in case of both Programmes.

	2010	2011	Struktura (%)		Wskaźnik 2011/2010
			2010	2011	
Frozen fish	15 304	12 284	4,8	3,9	80,3
Fresh fillets	10 516	8 384	3,3	2,7	79,7
Frozen fillets	26 031	23 944	8,1	7,7	92,0
Salted fish	19 579	13 812	6,1	4,4	70,5
Smoked fish	84 819	71 976	26,4	23,0	84,9
Tins and preservatives	58 034	73 213	18,0	23,4	126,2
Marinates	77 630	78 242	24,1	25,0	100,8
Other products <sup>b</sup>	29 767	30 960	9,2	9,9	104,0
<b>Total production</b>	<b>321 680</b>	<b>312 815</b>	<b>100,0</b>	<b>100,0</b>	<b>97,2</b>

<sup>a</sup> consumption goods, <sup>b</sup> culinary products made of fish, fish salads, pastes and patte.

Table Production size and structure of fish processing against product groups in fish processing plants employing 50 or more staff (tons)<sup>a</sup>. Source: MIR calculations based on GUS figures concerning the production of entities which employ 50 or more staff.

## Sectoral Operational Programme „Fisheries and Fish Processing 2004–2006”

The accession of Poland to the EU made it possible to continue modernization of the Polish fish processing sector under the Sectoral Operational Programme „Fisheries and Fish Processing 2004–2006”.

Under the Programme’s Measure 3.4.: „**Processing and Fish Market**” **4 operations were separated:**

- 3.4.1.** Increase of production capacity (construction of processing plants or investment in the existing processing plants).
- 3.4.2.** Modernization of existing processing plants without production capacity increase.
- 3.4.3.** Construction of wholesale facilities for fish marketing.
- 3.4.4.** Modernization of existing wholesale facilities for fish marketing.

Financial aid for the implementation of projects concerning fish processing and trade in fish products was granted to an applicant in the amount not exceeding 40% of a project’s eligible costs. In case of projects which related to appliances which contribute to a reduction of a negative impact on environment or methods aiming at a reduction of a negative impact on environment the support could amount to even 70% of the project’s eligible costs. Entities dealing with fish processing and wholesale trade in fish and fish products since the launch of the SOP belonged to the group of fish market stakeholders who used the EU funds the most effectively. Throughout the whole programming period the firms belonging to the fish sector all around Poland filed 304 applications for funds for the total amount of PLN 386 million. As a result of a verification of the applications filed, 233 contracts were executed for the total amount of PLN 247 million. As a result of projects implemented, ARMA effected over PLN 234 million of payments to beneficiaries. The financial limit provided for this measure was used in

93%. The greatest number of projects, namely 75 for the total funding amount of PLN 97.7 million was implemented in Pomorskie Voivodeship, of which the beneficiaries' own funds amounted to PLN 139.4 million. Zachodniopomorskie Voivodeship ranked as the second in terms of the number of projects implemented, where 58 projects for the total amount of PLN 71.9 million were completed with the participation of beneficiaries' own funds in the amount of PLN 106.9 million. The biggest project was implemented in Zachodniopomorskie Voivodeship by a beneficiary from Koszalin, and the project itself involved a purchase of a production building and adjustment of the building for the purpose of fish processing. The total cost of the project amounted to PLN 57 million, of which the amount of support was PLN 22.8 million. The investment projects completed were quite variable, and included a purchase of internal and external means of transport, a purchase of whole technology lines for the production of tins, fish drying and smoking systems, fish products' packaging systems, fish freezing and defrosting systems, a processing line for handling post-production waste, as well as a line for the production of fish products for direct consumption. While purchasing and assembling auxiliary equipment the businessmen bought i.a. electronic scales, high-pressure washing devices, plumbing systems, gas systems and heating systems. Major investments also included actions for decreasing a negative impact on environment. Such projects were granted extra funds – a beneficiary was reimbursed as much as 70% of eligible costs rather than the standard 40%.

### Examples of the most frequent investments:

From among the projects implemented, 136 involved the purchase of modern machines and equipment for processing plants (packing machines, forklifts, eviscerating machines, additional equipment for production lines), 57 projects included the purchase of means of transport (to be used within and outside a firm), 38 projects involved construction works (renovation of buildings, construction of storage facilities, sanitary facilities, or cooling houses), 25 projects implemented contributed to environment protection and reduction of negative impact on environment (reduction of energy and fuel consumption, reduction of CO<sub>2</sub> consumption, construction of sewage treatment plants, assembly of solar systems). As a result, production capacities were increased in 48 firms, and infrastructure was modernized in 73 firms without increasing production capacity.

Five new fish warehouses were opened and 19 were modernized. According to the estimates of National Marine Fisheries Research Institute (MIR), the volume of final production in fish processing rose from 301.9 thousand tons in 2004 to 380 thousand tons in 2009, while the value of the final production, which in 2004 amounted to PLN 2.850 billion in 2009 rose to PLN 4.374 billion. At the end of 2009, the register of Chief Veterinary Inspectorate (GIW) included 248 processing plants authorized to trade in fish products within the EU. In addition, the number of plants entitled to sell directly to local market in Poland increased. At the end of 2009, the GIW [Chief Veterinary Institute] register included 211 such entities. For comparison, in 2006 there were only 56 entities..

This trend of modernization of trade and production is continued under Measure 2.5 „Investment in processing and trade” within Sectoral Operational Programme “Sustainable Development of Fisheries Sector and Coastal Fishery Areas 2007-2013”.



## Operational Programme „Sustainable Development of Fisheries Sector And Coastal Fishery Areas 2007–2013”

Currently, the support for the sector is being continued under priority axis 1 the Operational Programme „Sustainable Development of Fisheries Sector and Coastal Fishery Areas 2007-2013” in the form of measure 2.5 „Investment in processing and trade”. In the new financial perspective PLN 438 million was earmarked for this measure. At least 50% of this amount was intended to assist micro- and small enterprises. For these entities the co-funding of investments was increased from 40% (as it was under the SOP) to 60%.

The modernization of the processing sector under the Operational Programme has been continued within the framework of the following objectives: increase of fish industry processing potential and the trade in those products, decrease of a negative impact of fish processing plants and trade in these products on environment, improvement of quality and competitiveness of processed fish products and those introduced to marketing, maintenance or increase of the level of employment in fish processing sector and in fish products’ trading sector.

Projects implemented most frequently under the measure:

- construction of new or renovation of old buildings directly related with fish processing actions or fish product trade,
- purchase or substitution of appliances directly related with fish processing or fish product trade,
- purchase of external means of transport – cooling trucks or internal transport - forklifts,
- construction or renovation of social facilities for workers.

Examples of investment projects:

- provision of equipment to a smoking house, or a processing line for the production of fish salads,
- extension of fish storage surface,
- construction of a storage cooling house,
- purchase of a technological line,
- purchase of a freezing tunnel,
- construction of effluent pre-treatment plants.

This measure also supports trade in fish products in order to supply the market with quality food and ensure product safety. To this end ARMA provides support for construction, modernization and investment in the equipment of warehouses which deal with the marketing of fish products.

Under measure 2.5, 362 applications for funds were filed for the amount of PLN 993 million, which accounts for 238% of the limit earmarked for measure 2.5. Due to such a huge interest, the recruitment procedure under this measure was closed. By the end of July 2011, 216 agreements for the amount of approx. PLN 338 million were signed. During verification, 141 applications for the amount of PLN 589 million were rejected.

Thanks to technological progress in recent years, increasing expectations of consumers and the process of adjustment to the EU standards, Polish fish processing sector is becoming a modern and competitive sector of food production, and the EU funds play a major role in reducing the period of modernization to such a short time.

### Priority axis 4:

These typically sectoral actions are complemented by priority axis 4, which contributes to inclusion of fisheries dependent communities by means of involvement of social and commercial partners from a given area in planning and implementing local initiatives. Priority axis 4 is to result not only in the improvement of life standards on fisheries dependent areas, which is to be achieved by implementing projects under local strategies of fishery areas development (LSROR). The second, but still important objective of the axis is to develop initiatives and entrepreneurship among local communities. Prio-

riority axis 4 encourages people on fisheries dependent areas to take various initiatives, to overcome local barriers, encourages to cooperation under joint projects. An opportunity to achieve this objective is seen in local fishery groups (LGR) – entities including representatives of broadly understood fisheries sector, public sector (gminas and other public entities) and representatives of social sector (associations operating on fisheries dependent areas).

Priority axis 4 features innovativeness and specificity which makes it different from the other axes. Under priority axis 4 various operations may be effected, which can be included within LSROR. The objectives of this axis are to reduce the decline of importance of the fisheries sector, to renovate areas affected by changes within the sector, to improve life standard within fishermen's communities, and to diversify jobs. As one can see, the objectives of this priority axis were defined very broadly, thus, under LSROR, it will be possible to fund various operations, which are to improve the lives of communities inhabiting LSROR areas.

Examples of the most frequent investments:

The following were the most popular investments:

- Construction and provision of equipment to a fish restaurant,
- Construction and provision of equipment to a building intended for rural tourism,
- Purchase of specialised means of transport to transport live fish and frozen products,
- Adjustment of fish warehouse to a services and trade facility,
- Purchase of a cooling truck to sell fish and fishery products,
- Opening of a store selling local products,
- Renovation of historical buildings,
- Revitalization of areas;
- Development of rural tourism farms and guest houses,
- Purchase of delivery trucks – cooling trucks, for direct sale of fish,
- Development of restaurants,
- Modernization of swimming-pools/beaches,
- Improvement of life of those disabled by eliminating certain constraints.

The range of those eligible for using priority axis 4 of Operational Programme „Fish 2007-2013“ is quite broad. Beneficiaries may include individuals and legal entities, scientific and cultural institutions, non governmental organizations engaged in the development of a given area, as well as gminas and poviats. Funds for various actions were applied for by the inhabitants of LSROR areas, as well as inhabitants of other regions, who wanted to make investments or start a business. A significant group of beneficiaries included representatives of broadly understood fisheries sector, i.e. fish breeders and processors, owners of ships and inland fishermen and their workers. Entities who provide services for fisheries, i.e. offering repair of equipment for fishing, are also important beneficiaries of priority axis 4.

## RURAL AREAS

### Infrastructure in the rural areas

Poor development of technical infrastructure in the rural areas is one of the most serious constraints for the development of rural areas, which affects not only the life standards of its inhabitants, but also investment opportunities. Particular problems include a lack of appropriate collective sewage network, sewage treatment plants, poor power transmission infrastructure and poor availability of Internet. Rural areas differ strongly in terms of equipment in technical infrastructure. Only those rural areas which neighbour urban areas usually enjoy the best developed infrastructure.

A disproportion in the development of water supply and sewage system infrastructure between urban and rural areas results inter alia from a dispersion of rural households, the location of protected areas and land ownership structure. Because of all the above mentioned factors, investment in water supply or sewage systems in the rural areas are much more expensive.

At the end of 2011 Poland enjoyed:

- 227 057.06 km of water supply network, of which 4,836.56 km constructed in 2011,
- 67,971.67 km of sewage system, of which 8,299.11 km were constructed in 2011.

The longest water supply network is in Mazowieckie Voivodeship - 33,418.89 km, and the shortest – in Lubuskie Voivodeship - 4,958.55 km. The longest sewage system network is in Podkarpackie Voivodeship (11,589.71 km), while in Podlaskie Voivodeship there is only 1,365.73 km of sewage network.

No.	Voivodeship	Water supply network		Collective sewage system network	
		Constructed in 2011	Total as at 31.12.2011	Constructed in 2011	Total as at 31.12.2011
		km	km	km	km
POLAND		4 836,56	227 057,06	8 299,11	67 971,67
1	Dolnośląskie	308,32	11 309,24	517,95	4 675,52
2	Kujawsko-pomorskie	275,83	19 883,80	301,42	3 983,44
3	Lubelskie	477,35	17 583,87	378,61	2 594,81
4	Lubuskie	176,68	4 958,55	205,45	1 556,85
5	Łódzkie	136,13	18 249,02	175,24	2 096,96
6	Małopolskie	388,20	14 378,59	659,71	6 671,71
7	Mazowieckie	761,96	33 418,89	640,49	4 986,51
8	Opolskie	44,63	6 167,53	364,30	2 042,09
9	Podkarpackie	186,56	11 838,59	1 318,97	11 589,71
10	Podlaskie	223,86	10 920,44	190,37	1 365,73
11	Pomorskie	250,27	10 523,28	679,77	5 222,75
12	Śląskie	160,15	10 222,00	439,58	3 839,80
13	Świętokrzyskie	210,17	11 209,18	767,56	2 913,03
14	Warmińsko-mazurskie	453,83	13 036,57	459,19	3 475,73
15	Wielkopolskie	352,25	25 371,25	638,59	6 271,08
16	Zachodniopomorskie	430,37	7 986,26	561,91	4 685,95

Table The length of water supply and sewage system network in division into voivodeships – situation as at 31 December 2011. Source: Own figures based on a progress report on investment in water supply system and sewage system network in rural areas in 2011 – RRW-2.

Considering differences in the surface area of voivodeships in Poland as well as regional environmental conditions, the length of water supply or sewage system networks does not enable to make a definite conclusion as to the degree to which the existing infrastructure satisfies the needs of inhabitants of these rural areas. A more precise picture of the situation may be seen when looking at the indicators of rural areas' equipment in water supply and sewage system networks. At the end of 2011, the indicator of the equipment in water supply network calculated as a relation of the number of water supply connections to the total number of households, expressed in %, was 74.8%, and the indicator of the equipment in sewage systems, expressed as a relation of the number of sewage connections to the number of households, was 25.1%. The table below presents the above mentioned indicators against voivodeships.

No.	Voivodeship	Number of households according to GUS*	Water pipes		Sewage system	
			Number of water supply connections	Percentage of equipment in water pipes	Number of sewage connections	Percentage of equipment in sewage pipes
			number	%	number	%
	POLAND	4 372 577	3 269 154	74,8	1 098 264	25,1
1	Dolnośląskie	262 846	187 786	71,4	71 753	27,3
2	Kujawsko-pomorskie	229 743	174 026	75,7	52 145	22,7
3	Lubelskie	370 162	266 368	72,0	47 533	12,8
4	Lubuskie	109 799	75 617	68,9	21 897	19,9
5	Łódzkie	294 744	267 525	90,8	47 364	16,1
6	Małopolskie	438 690	285 205	65,0	112 904	25,7
7	Mazowieckie	574 100	454 278	79,1	111 350	19,4
8	Opolskie	159 774	116 467	72,9	42 072	26,3
9	Podkarpackie	330 928	213 104	64,4	155 939	47,1
10	Podlaskie	149 646	111 738	74,7	23 842	15,9
11	Pomorskie	197 858	148 105	74,9	76 283	38,6
12	Śląskie	320 627	243 507	75,9	82 813	25,8
13	Świętokrzyskie	213 637	172 198	80,6	43 273	20,3
14	Warmińsko-mazurskie	172 156	108 975	63,3	34 673	20,1
15	Wielkopolskie	388 386	344 039	88,6	124 734	32,1
16	Zachodniopomorskie	159 481	100 216	62,8	49 689	31,2

\*households according to GUS „Demographic Annals 2007 (Table 46. households according to the number of people and voivodeships in 2002 - villages).

Table Water supply system and sewage system in rural areas against voivodeships at the end of 2011. *Source: Own figures based on a progress report on investment in water supply system and sewage system network in rural areas in 2011 – RRW-2.*

According to the above figures, only in three voivodeships (Łódzkie, Świętokrzyskie Wielkopolskie) water pipe indicator exceeds 80%. The lowest indicators are in Warmińsko-mazurskie and Zachodniopomorskie Voivodeships, in which they exceed slightly 60%. The situation with the access to sewage system is much worse. The highest indicator of the access to sewage pipes - in Podkarpackie Voivodeship - is as low as 47%, and in five voivodeships this indicator does not exceed 20%, and in Lubelskie Voivodeship it reaches only 12.8%.

One has to underline that the poor access to municipal systems in rural areas is a result of several factors. Each region of Poland must be considered individually, while adjusting water supply and sewage system investments to regional conditions. A selection of an appropriate sewage management system requires making a very precise analysis, which should take account of i.a. the architecture, degree of household dispersion, landscape, geological conditions, hydrological conditions, etc. The figures above show a clear disproportion between the access to collective water supply system and collective sewage system. Such a situation results i.a. from the fact that the development of water supply network is much higher in the hierarchy of rural communities' needs. Moreover, the investment in sewage systems and sewage treatment plants is much more expensive and perceived by some local inhabitants as an additional financial burden rather than an element improving their life standards and reducing environmental degradation.

## Entrepreneurship in rural areas

One of the preconditions of rural development is a need to diversify rural areas' economic structure by a development of all forms of entrepreneurship, which should lead to a creation of new jobs and diversification of income.

Various types of business are conducted in the rural areas. The most common and characteristic include of course agriculture. Non-agricultural businesses have been developing steadily with a rising trend for a few years. A phenomenon is noticed whereby the basic human resources for entrepreneurship are becoming less and less available and there is a need to develop small processing and small services based on agricultural farm potential.

In comparison with 2003, at the end of 2011 the number of business entities in rural areas, excluding individual farmers, increased by 18.21%. According to GUS, 3.8 million business entities were registered in the REGON register in 2011, of which over a million (approx. 26%) were registered in the rural areas.

	Year	Total
POLAND	2003	3 581 593
	2008	3 757 093
	2011	3 869 897
	<b>Dynamics</b>	<b>108,05</b>
Urban areas	2003	2 732 248
	2008	2 828 613
	2011	2 865 849
	<b>Dynamics</b>	<b>104,89</b>
Rural areas	2003	849 345
	2008	928 480
	2011	1 004 048
	<b>Dynamics</b>	<b>118,21</b>

Table Business entities registered in REGON data base. Source: own calculations based on GUS publication: „Characteristics of rural areas in 2008 ” and figures obtained from GUS Local Data Base.

Nearly 97% of national business entities operating in rural areas in 2011 belonged to the private sector. The remaining 3% belonged to the public sector. In terms of forms of business, in 2011 the structure of private sector was dominated by individual businesses (83.94%), followed by companies and partnerships (4.38%), associations and social organizations (3.63%).

According to the number of workers, the majority of national economic entities operating in the rural areas were individuals who employed up to 9 persons (approx. 95%).

In 2011, over 102 thousand new national economic entities were entered on the REGON register, which accounted for 29.0% of the total newly registered entities in Poland. One has to note the fact that in 2011 more entities operating in rural areas were registered in REGON register than those deleted from the register (by 903 entities). At the national level, this result was negative.

The structure of economic entities in the rural areas is dominated by service entities. At the end of 2011, such operations in the rural areas were conducted by 676.5 thousand entities, which accounted for 65.1% of the total rural business entities. Next in terms of the number of entities were the areas of industry and construction, where the number of registered entities accounted for 28.16%. Only 6.74% of the total number of rural business entities operated in agriculture, hunting, forestry and fisheries.

	Total	Of which:		
		Agriculture, hunting, forestry and fisheries	Industry and construction	Services
<b>POLAND</b>	3 869 897	93 167	836 434	2 940 055
<b>Urban areas</b>	2 865 849	25 513	553 712	2 286 394
<b>Rural areas</b>	1 004 048	67 654	282 722	653 661
	100%	6,74	28,16	65,10

Table Structure of national economic entities registered in REGON against the nature of their business. *Source: own calculations based on GUS publication „Characteristics of rural areas in 2008” and figures obtained from GUS Local Data Base.*

In 2011, the greatest number of businesses conducted in rural areas operated in trade, repair of cars, transport and warehousing, industry and construction.

Numerous actions targeted at the development of entrepreneurship are undertaken under rural development policy, such as i.a. upgrading skills, facilitating access to job market and to financial support. Within the Rural Development Program 2007-2013 (RDP 2007-2013), three measures are targeted at the development of entrepreneurship: Increase of added value of basic agricultural and forestry production, Diversification of non-agricultural activity and Formation and development of micro-undertakings. A total value of funds intended for supporting entrepreneurship under RDP 2007-2013 exceeds EUR 2.46 billion.

Various types of non-agricultural activities pursued by rural inhabitants include tourist services. The development of rural tourism, including agro-tourism, is an important direction in social and economic transformation of rural areas. Rural tourism contributes to the overall increase of demand in tourist sites, supports folklore, forces investment. It is the form of action which contributes to the development of entrepreneurship, competitiveness and economic viability of rural areas, which in turn improves the quality of life of rural communities. It also stimulates activities of the communities and co-operation based on specific social characteristic, culture and natural features of a given rural region. Since 1990, Poland has been observing a dynamic development of agro-tourism, i.e. a form of leisure which takes place in rural areas, based on accommodation and leisure activities located on a farm. Agro-tourism services are estimated to be rendered in over 10 thousand facilities which offer 98.1 thousand beds. The greatest number of agro-tourist beds can be found on areas in which the number of tourist attractions is the greatest. Thanks to their rich cultural and natural heritage, Małopolskie and Podkarpackie Voivodeships are visited most often by tourists who can find respectively 20% and 10% accommodation resources there. Warmińsko–Mazurskie with Great Lakes District is also popular, as is Podlaskie Voivodeship with the Białowieża Forest.

Polish agro-tourist farms offer mainly (in 70-80%) accommodation in guest rooms, and significantly less often in individual apartments, houses and on camping sites. One agro-tourist facility offers on average 5 rooms with 10 beds (5 double bed rooms). However, the offer of agro-tourist farms very often includes quite a variable number of extra services and leisure and cultural activities, such as horse riding, angling, collecting forest fruit, handicraft workshops, culinary workshops, education, sightseeing or participating in various local events.

This broad agro-tourist offer can be studied on websites of agro-tourist associations and agricultural advisory centres. This type of leisure is promoted on numerous local and regional field events, such as fairs, festivals or village holiday events. The biggest event of this type – International Fair of Rural Tourism and Agro-tourism AGROTRAVEL, takes place annually in Kielce.

The offer of rural tourism is broader and broader, it is being adjusted to the needs of broad range of recipients. It is facilitated by the development of brand products of rural tourism (which is supported by numerous institutions and voivodeship authorities) and the development of traditional and regional products.



### Rural women

Polish rural areas are inhabited by 7.5 million women (urban areas - 12.2 million women), including 4.4 million of women in working age. Women in rural areas account for 50.2% of the total community, whereby in the group of people up to 55 years of age there are slightly more men than women, and above this age there is a significant surplus of women. According to GUS figures, at the end of June 2010 the feminization ratio in the Polish cities equalled 111 and in rural areas - 101. Research shows that women who work professionally account for 56.5% of the total number of women living in rural areas. When working as a farmer, a woman is usually a partner of her man in farm works or in non-agricultural activity. Household work and raising children still belong to women's jobs. However, statistics show that every fifth farm in Poland is actually managed by a woman.

The role of women in agriculture results from specific functions fulfilled by a farm family, which is a consuming community as well as a production team, and from a specific combination of work in a household with work on a farm. Rural women have a number of roles to play, in a family and in business, the latter often includes an obligatory work on a farm and an additional job or non-agricultural activity, as well as work for her own environment.

For women to remain on a farm, it is important that an appropriate social security system for farmers is in place. In the Polish farmers' social security system, a farmer's partner falls under the same definition as a farmer, unless the partner does not work on a farm or in a household which is directly linked with the farm. Such a system approach provides for appropriate security of women in case of work disability as a consequence of an illness or old age, especially if a woman works exclusively as a housewife running a household directly related with a farm.

Since the 1990s, women have been more and more active in public. The share of women in gmina councils rose from 9.2% in 1990 to 25.4% in 2010 (in the same period in urban gminas it rose from 16.5% to 26.6%). There is a rising trend for women to become active at a village administration level. Women account for approx. 30% of village governors.

Rural women in Poland actively participate in transforming their own surroundings. Social and civil activity of women is very diverse. It formally includes a membership of various organizations, as well as informal activities. The main women organization in rural areas is Rural Women's Circle, but more and more women belong to local associations, foundations and rural authorities.

A variety of roles played by rural women gives them particular predispositions, to contribute significantly to progress and innovation and improvement of life quality on rural areas.

Rural women demonstrate willingness to study and improve their skills, as well as engagement in actions for local environment. Difficulties with finding a job on the local market motivate them more than men to find a job outside agriculture and to start their own business. Thanks to the above features women can become catalysts of socio-cultural and economic transformation in the rural areas.

Examples of businesses led by women include: handicraft, craftsmanship, agro-tourism, agricultural processing and sale of agricultural products. Such a character of work is particularly attractive for them, as it helps coordinate professional duties with housework and raising children. Combining work in agriculture with non-agricultural activities makes it possible to run sustenance farms and prevents depopulation of certain regions and their economic and social degradation.

## AGRICULTURAL INSTITUTIONS

### AGRICULTURAL MARKET AGENCY (AMA)



## Agencja Rynku Rolnego

For 22 years AMA has been supporting agri-food sector. Since accession, as an accredited Paying Agency, it has been implementing intervention policy on agricultural markets, administering the CAP mechanisms in compliance with the principles of the EU law and with Polish regulations. The mechanisms are funded by European Agricultural Guarantee Fund (EAGF) and the state budget. Moreover, AMA administers the funds for agri-food products' promotion.

AMA has been operating i.a. based on the Act of 11 March 2004 on Agricultural Market Agency and organization of certain agricultural markets (Polish Journal of Laws [Dz.U.] of 2012, item 633) and the Charter of Agricultural Market Agency granted by the Minister of Agriculture and Rural Development on 7 February 2008 (Polish Journal of Laws [Dz.U.] No 30, item 181, as amended). In the light of Polish regulations, Since 1 January 2012 AMA has been an Implementing Authority<sup>2</sup>.

AMA actions serve agricultural producers, processors and exporters, and – increasingly – also consumers, as they contribute to stabilizing the agri-food market and to increasing the competitiveness of agri-food products. In recent years, one has observed an increased role of pro-social mechanisms implemented by the Agency, i.e. such mechanisms which support consumption, promote appropriate consumption models (as well as regional, traditional, organic products and quality food).

Support extended by AMA to agri-food sector since the accession of Poland to the EU until the end of June 2012 amounted to nearly PLN 12.2 billion. PLN 10.2 billion of this amount was invested in the implementation of CAP mechanisms and national mechanisms administered by AMA, and PLN 1.8 billion was the value of ready food products provided as food aid, PLN 158.9 million was spent from the fund on promotion of agri-food products.

In 2011, support for agri-food sector extended by AMA amounted to PLN 1.2 billion. Financial support targeted to beneficiaries is not the only effect of the tasks implemented by AMA. Apart from actions resulting in payments to beneficiaries – the Agency also administers a number of non-financial mechanisms – such as milk quotas, international trade mechanisms, and monitoring and control of production and processing (on the market of wine, sugar, milk and milk products, tobacco, fruit and vegetables and renewable energy sources).

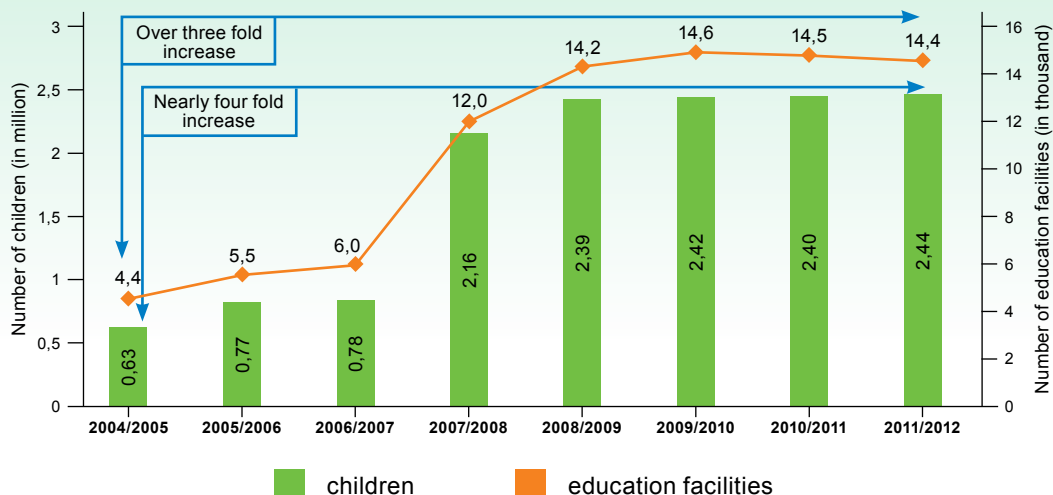
As at 30 June 2012, the Central Register of Entrepreneurs kept by AMA listed the total of 598 thousand beneficiaries.

### Support to consumption

AMA has systematically been increasing its pro social activities to support the consumption of milk and milk products and to shape an appropriate model of consumption in children and youth. Since the school year 2007/2008 Poland has ranked first among the Member States in terms of milk and milk products consumption in schools and education facilities under a “Glass of Milk” scheme. It is also a leader in the use of EU funds earmarked for this scheme.

<sup>2</sup> Public Funds Act of 27 August 2009 (Polish Journal of Laws [Dz.U.] of 2009, No157, item 1240, as amended)

## Education facilities and children and youth participating in the „Glass of milk” scheme



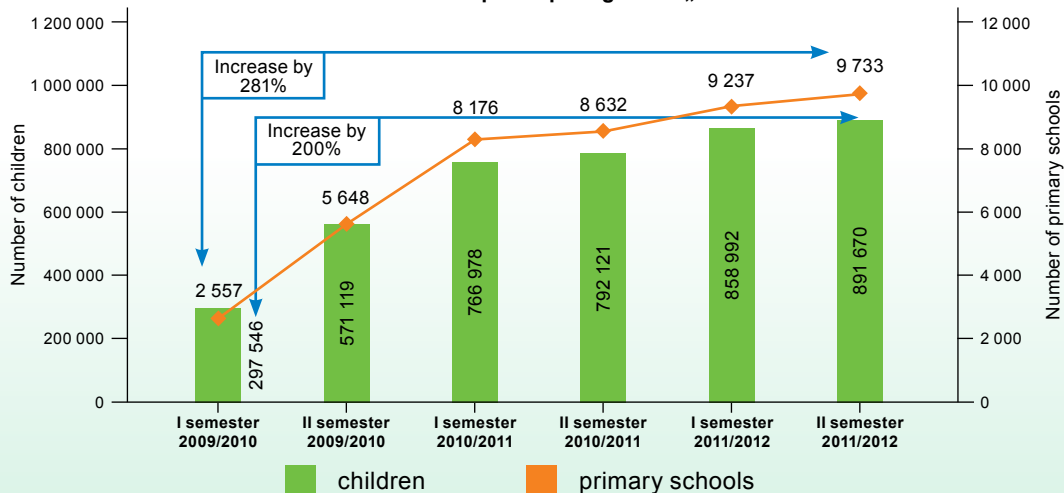
Source: AMA.

Nearly 2.4 million children (39% of the total of those eligible) benefited in the school year 2010/2011 from the „Glass of Milk” scheme. This is 3.8 times more than in the school year 2004/2005 (the year the scheme started). The scheme is dominated by primary school students – in the school year 2010/2011 there were 1.7 million such students (77% of those eligible from primary schools in Poland). The children who benefited from the “Glass of Milk” scheme in 2010/2011 attended over 14.5 thousand educational institutions (3.3 times more than in 2004/2005).

In the school year 2011/2012, 2.44 million children benefited from the scheme. They attended to 14.4 thousand educational establishments (of which 65% were primary schools).

Since accession of Poland to the EU until the end of June 2012 children drank 312 thousand tons of milk and milk products under the scheme (i.e. 1.2 billion glasses of milk), and AMA paid out PLN 775 million for its implementation (of which PLN 528 million from the national top-up, PLN 222 million from the EU subsidy and PLN 25 million from Milk Promotion Fund).

## Education facilities and children participating in the „Fruit at School” scheme



Source: AMA.

Year by year the number of primary school children participating in a scheme „Fruit in school” has been increasing. Since the launch of the scheme in the school year 2009/2010 the number of children participating in the scheme increased 3 times, and the number of schools – nearly 4 times. The scheme aims at a long-term change of eating habits in children through increased consumption of fruit and vegetables in their every day diet, and by promoting healthy nutrition by means of ancillary actions – of educational character – to be implemented in primary schools. The scheme is to prevent an unfavourable trend of obesity and obesity-related illnesses among the EU children.

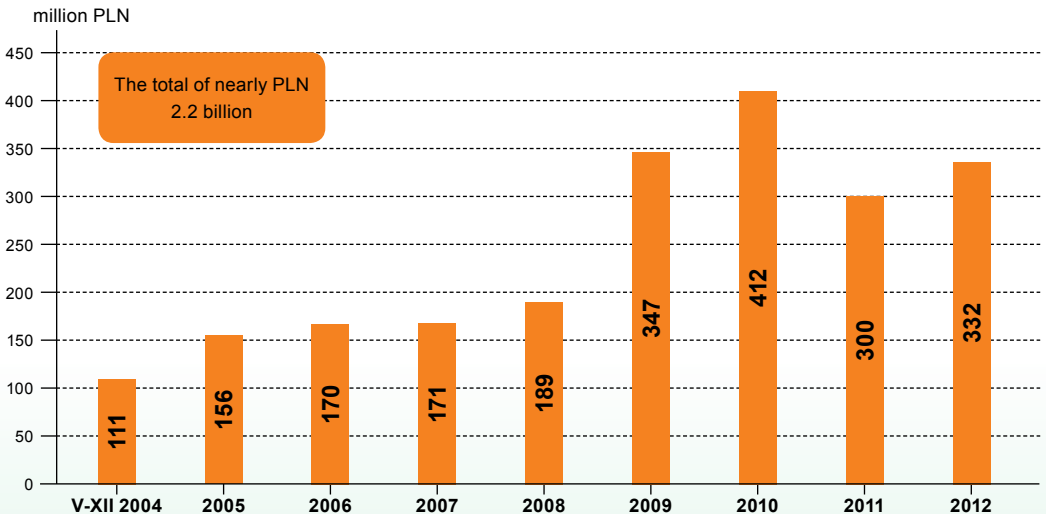
\* Based on agreements signed by educational establishments with approved suppliers of fruit and vegetables to primary schools. In case of figures concerning schools, since the 1st semester of the school year 2010/2011 each subsequent semester included also primary schools which acquire and distribute fruit and vegetables individually.

In the 2nd semester of 2011/2012, agreements with 102 approved suppliers were signed by 9.7 thousand primary schools (by 5% more than in the 1st semester), and 6 authorized schools acquired and distributed fruit and vegetables on their own. The program was benefited by 891.7 thousand children (by 4% more than in the 1st semester), which accounted for 72.2% of the target group of students covered with the programme. The greatest number of children benefited from the programme in Mazowieckie Voivodeship (116.8 thousand children), Śląskie Voivodeship (102.7 thousand) and Wielkopolskie Voivodeship (86.1 thousand).

The budget of the scheme for Poland for the school years 2009/2010-2012/2013 was set at the level of EUR 12.3 million for each school year. The scheme is funded in 75% (EUR 9.2 million) from the EU funds, and in 25% (EUR 3.1 million) from the state budget. In terms of the amount of the EU funds allocated for the scheme in the school year 2012/2013, Poland ranks four following Italy, Germany and Romania. Since the launch of the scheme until the end of June 2012, AMA paid out PLN 93.3 million for its implementation. During the 3 years of the scheme administration, AMA provided primary school children free of charge with over 100 million portions of fruit and vegetables.

## Food aid

**Amount of funds and value of food products from intervention stocks provided by the European Commission for the implementation of food aid scheme in Poland**



Source: AMA.

Since the accession of Poland to the EU, every year the Agency participates in pro-social actions aiming at an improvement of the situation of the poorest people in the EU by supplying them ready food products.

The European Commission granted the total of PLN 2.19 billion to Poland for the implementation, during 2004-2012, of nine aid schemes under the mechanism: „Free food for the Europe’s poor”. The aid granted included also over 1.3 million tons of food products diverted from the EU intervention stocks (unhusked rice, cereals, butter, sugar, skimmed milk powder). Each year, food aid under the mechanism administered by AMA is provided to nearly 4 million of those in need.

Since accession, the poorest EU inhabitants received 258 million litres milk and 474 thousand tons of other food products, including 30 ready made food products, i.a. pastas, wheat flour, barley grains, white rice, sugar, cheeses, cheese spreads, UHT milk, corn flakes, jams, ready made dishes.

Apart from 8-10 thousand local AMA offices, four main Polish charities help distribute these products, namely Federation of Polish Food Banks, Caritas Poland, Polish Committee for Social Assistance, Polish Red Cross. Since accession to the EU until the end of June 2012 AMA spent PLN 753 million for the purchase of food articles and for covering administrative and transportation costs.

### Support to Food Promotion

AMA has been increasing its support of actions promoting agri-food products and information about those products. Since Poland’s accession to the EU until the end of June 2012, the Agency participated in the implementation of 19 sectoral campaigns under CAP mechanism: “Support of promotion and information actions on the markets of selected agricultural products”.

Between 2004-2011 AMA completed 9 promotion and information campaigns: „Carrot” (promoting carrot juice in Bulgaria and Romania), „Originality under Protection” (concerning the Community system of marking regional and traditional products), „Frozen Foods Full of Nature” (promoting frozen fruit and vegetables), „Organic Farming” (concerning organic farming and its produce), „Life is Honey” (promoting honey and bee products), „I choose Milk and Milk Products” (promoting milk and milk products on the Polish market), “A Table full of Flavour” (promoting Polish meat and meat products on the US and South Korean markets), “Meat and Meat Products – Tradition and Taste” (promoting Polish meat and meat products in Ukraine, Japan and China), and “Fruit and Vegetables 5xdy” (promoting healthy and balanced diet taking account of everyday consumption of fruit, vegetables and juices, targeted to women and school children).

In 2012, AMA has been implementing 10 promotion and information schemes. They include:

- „Information campaign on pigmeat (fresh, cooled and frozen) produced according to the Polish quality system - Pork Quality System – PQS” (targeted at the Polish market – with the budget of EUR – 3.7 million);
- „European Table – Tradition, Modernity, Quality” (implemented in Russia, Ukraine, China, Singapore and Thailand – with the budget of EUR 3.1 million, involves fresh, chilled or frozen meat and meat products, including beef, veal or pig meat);
- „Tradition, Quality and European Taste” (targeted at the markets of South Korea, the USA, Vietnam – with the budget of EUR – 3.5 million, concerning fresh, chilled or frozen beef and pigmeat and processed food made of them);
- „Fall in Love in Rapeseed Oil” (implemented in Poland and Latvia – budget of EUR 1.6 million );
- „5 portions of vegetables, fruit and juice” (targeted at Poland and Romania, with the budget of EUR 3.8 million, continuation of the campaign „Fruit and vegetables 5x a day”);
- „New quality in poultry sector” (implemented in Poland and Germany, with the budget of EUR 4 million, concerning poultry meat produced in the quality system QAFP);
- „Pastas of Europe” (targeted at Ukraine, with the budget of EUR 3 million );
- „Apples every day” (implemented in Russia and Ukraine, with the budget of EUR 4 million );
- „I am crazy about milk” (targeted at the Polish market, with the budget of EUR 2.4 million );
- „QMP – always good beef” (implemented in the Polish market, with the budget of EUR 1.6 million).

Financial support provided to sectoral organizations between accession and the end of June 2012 amounted to PLN 88.4 million, of which PLN 53 million originated from the EU budget and PLN 35.4 million from the national budget.

AMA has been implementing promotion and information actions under RDP 2007-2013, the aim of which is to support producer groups in information and promotion actions concerning products produced under food quality systems, increase of consumer interest in food quality, its specific properties and advantages, as well as with a high standard of animal welfare, etc.

Support may be applied for by producer groups participating in the following food quality systems: Community certification system of regional and traditional products (including the system of Protected Designation of Origin, Protected Geographical Indications and Traditional Speciality Guaranteed), organic farming, integrated production and Quality Tradition system.

Since September 2009, it has been possible to file application in AMA headquarters, for aid for promotion and information actions concerning quality food products, for which the EU earmarked EUR 10 million. AMA is responsible for accepting and examination of projects, signing agreements and accounting for actions (such as printing brochures or advertisement materials), and the payment of funds is made by ARMA. The implementation of those actions cannot take longer than 2 years. Since the launching of the mechanism until 30 June 2012 thirteen agreements were signed for the amount of PLN 2.8 million and 8 agreements were cleared for the amount of PLN 1.2 million.

On 14 May 2012, the Ministry of Economy signed an agreement with AMA for preparing and implementation of the concept of Branch Programme of Promoting Polish Food Specialities under a systemic project „Promotion of Polish Economy on International Markets” under Sub-measure 6.5.1. of Innovative Economy Operational Programme.

AMA's aim is to create new, strong brands which are going to be recognizable worldwide and associated with Poland, by enabling enterprises to comprehensively and systematically promote their products abroad. Implementation of the branch programme conducted by AMA has been provided for the period 2012-2015. The programme is going to cover the following target markets: Russia, Germany, China, France, Ukraine and United Arab Emirates. Promotion actions covered with the project are intended for entrepreneurs who operate in processing sector (meat, milk, fruit and vegetable, coffee and tea) and in the production sector (cheeses, fruit and vegetable juices, cereals, bread, cakes and biscuits, pastas, cocoa, chocolate and confectionery, vodka, cider and other fruit wines, as well as other non-distilled fermented products).

According to Article 11.3a of the Act on Agricultural Market Agency and the operation of certain agricultural markets, AMA is also responsible for the promotion of agricultural and agri-food products, especially organic products, regional and traditional products, as well as other products produced under acknowledged food quality systems; its actions include:

- conducting education actions concerning the principle of balanced diet, in order to promote the consumption of certain agri-food products,
- publishing brochures and publications promoting Polish regional and traditional products, as well as Polish cuisine,
- organizing group meetings with quality food producers, including presentation and tasting of products.

## Handling promotion funds for agri-food products

AMA administers nine agri-food products promotion funds, concerning milk, pigmeat, beef, horse meat, sheep meat, grains and grain products, fruit and vegetables, poultry meat and fish.

Promotion funds were formed in order to support agricultural marketing, increased consumption and promotion of agri-food products. These objectives are implemented in particular through conducting information and promotion campaigns, as well as through educating target groups (mainly youth and children), conducting scientific and market research as well as development work to improve food products' quality, funding training for producers and processors, as well as through supporting national branch organizations. Bank accounts of particular funds are fed with funds calculated, collected and transferred by entrepreneurs operating in a given branch of production.

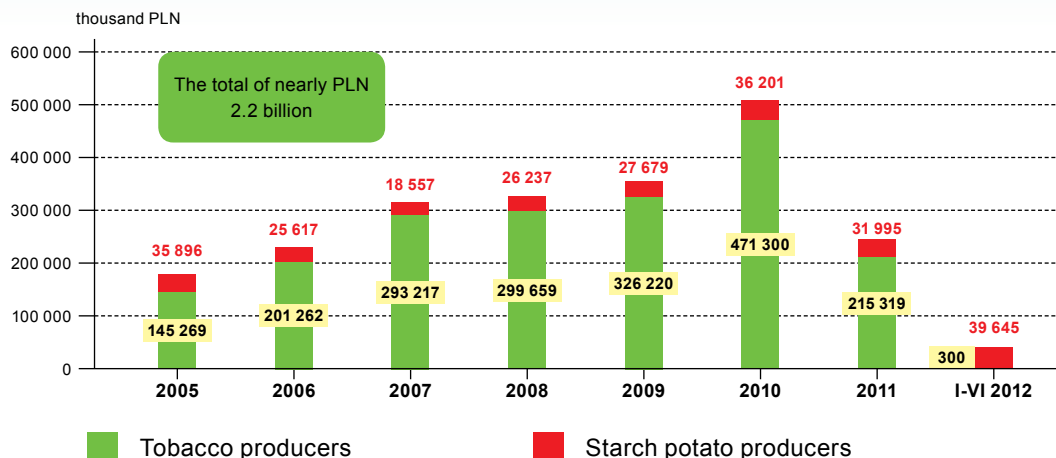
Since 2009 until June 2012, nearly PLN 112.8 million were collected on the funds' accounts. The total of PLN 83.5 million were paid out in order to fund various tasks. The funds are managed by Management Committees established for each fund, and AMA's role is to ensure administrative handling of the funds.

## Support to agricultural producers and processors

For the purpose of paying top-ups (to tobacco producers and starch potato producers), since 1 May 2004 until the end of June 2012, AMA spend PLN 2.2 billion for coupled and decoupled payments, of which PLN 2 billion (89%) for payments for tobacco producers, and PLN 241.8 million (11%) – for starch potato producers.

Decoupled payments for tobacco producers in 2011 were paid by AMA to 13.4 thousand producers. Coupled payments for starch potato producers in 2012 were paid out based on 3.9 thousand decisions, and decoupled ones – based on 4.1 thousand decisions.

**Top-ups paid out by AMA between 2005 – June 2012**



Source: AMA.

Since the accession of Poland to the EU, AMA made intervention purchases of 2 136.6 thousand tons of cereals (between 2004-2006 and 2009-2010), 213 thousand tons of sugar (between 2005-2006), 20.5 thousand tons of milk powder (2009), and 6.5 thousand tons of butter (2005-2006 and 2009). Total AMA's expenses for the purchase, storage and transport of the above mentioned products exceeded PLN 1.9 billion.

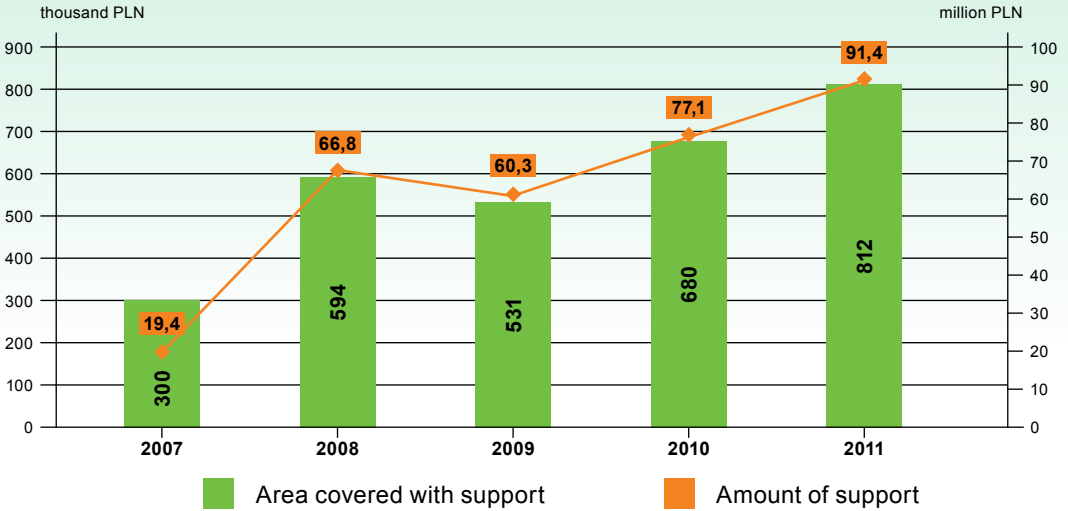
Since the accession of Poland to the EU, the mechanism: Support for private storage of pigmeat was triggered twice by the European Commission, and AMA payments to this end amounted to the total of PLN 24.2 million, of which:

- in 2007 – due to significant decline in the EU of economic situation concerning pig breeding, the Agency cleared 58 agreements and paid PLN 9.2 million for 5.9 thousand tons of pigmeat in storage;
- in 2011 – due to a difficult situation in the EU pig breeding sector, resulting from the increase of prices of feedstuffs, dioxin crisis in Germany and the fall of meat prices in many EU Member states, AMA cleared 92 agreements for storing 9 thousand tons of various pigmeat assortment for the amount of nearly PLN 15 million.

Since 2007, under the mechanism „Support to seed material”, AMA has compensated farmers a portion of costs of purchasing seed material of elite or qualified category of the following crops: common wheat, rye, barley, triticale, oats, lupin, peas, horse bean, vetch and potatoes. This is mainly a type of de minimis aid in agriculture.

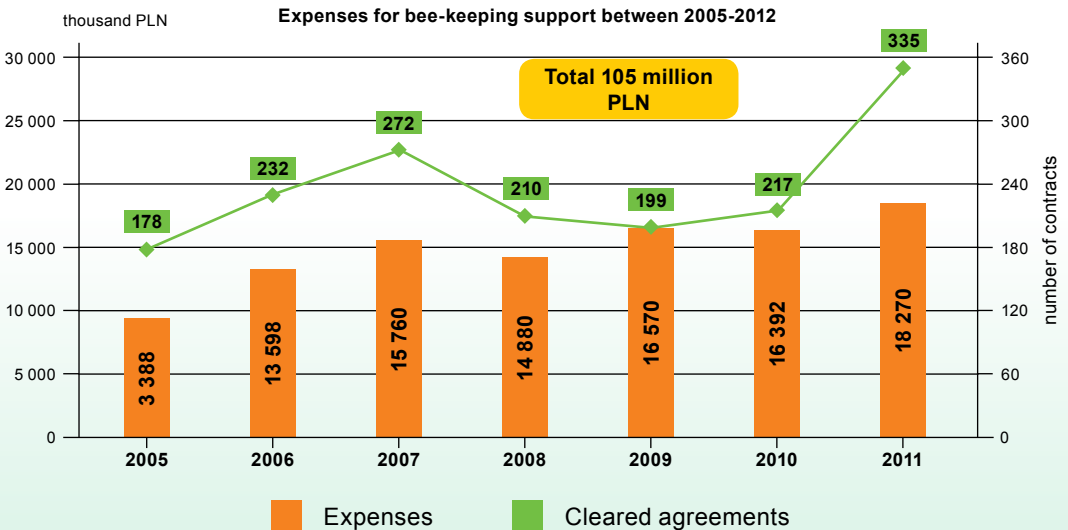
The number of applications filed by farmers showed a growing trend – in 2010 it was over 30% higher than in 2009 and in 2011 – by 4.5% higher than in 2010. In 2012, agricultural producers filed by 1.3% more applications to the Agency than in 2011. Also, the AMA support for seed material has systematically been growing – in 2007 it was PLN 19.4 million, while in 2011 PLN 91.4 million was paid to farmers. Since the launch of support mechanism for seed material until 30 June 2012 the producers of cereals, potatoes and leguminous plants filed 303 thousand applications for support. The total of PLN 348.3 million was paid out by AMA in that period.

AMA support and area for which the seed material support was granted



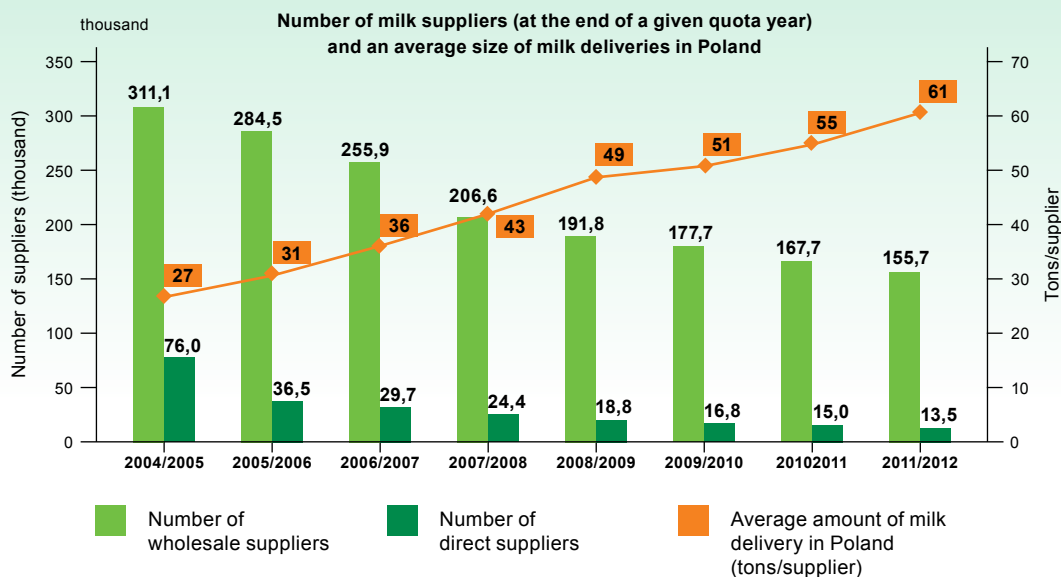
Source: AMA.

The Agency supports the market of bee products through reimbursements of costs incurred for the implementation of the National Programmes for Bee-keeping Support in Poland by eligible entities (bee-keepers' associations, unions and cooperatives). Since 2005 until the end of June 2012 AMA paid out PLN 105.4 million within the framework of implementing the support mechanism concerning bee products, mainly for the purchase of drugs against varroaosis and bee purchases. Expenses incurred were funded fifty-fifty from the EU and domestic budgets. AMA actions conducted in the bee sector facilitate the improvement of production conditions, quality and marketing of bee products, and in consequence – the development of bee-keepers' branch.



Source: AMA.





Source: AMA.

AMA manages the system of milk production quotas, under which it handles 155.7 thousand wholesale and 13.5 thousand direct milk suppliers, and issues approx. 200 thousand decisions every year. AMA conducts actions concerning: a distribution of the national reserve of the national quota, handling transfers and conversion of individual quotas, reduction or withdrawal of individual quotas, monitoring the amount of marketed milk or milk products and a level of milk quota use, monitoring the number of milk producers in Poland, monitoring fat contents in milk, quality control of milk marketed in given quota year and registering entities buying-in milk.

During 8 years of milk quota system operation in Poland, the quota allocated to Poland rose by 10% (from 8.96 billion kg in the quota year 2004/2005 to 9.86 billion kg in the quota year 2011/2012), and the number of wholesale milk suppliers dropped by half, and that of direct suppliers by over 80%. This translated into a 2.5-fold increase in the average individual quota per a milk producer (from 24 thousand kg to 60 thousand kg KI), which is an evidence of progressive concentration of milk production in Poland.

In the quota year 2012/2013 the national quota allocated to Poland (1% bigger than in the quota year 2011/2012) amounts to 9.96 billion kg and is the sixth biggest milk quota in the EU.

Between 2007-2009 AMA paid PLN 154.1 million of compensation for giving up milk quotas to 21.5 thousand small milk producers in order for them to change the production profile.

As a consequence of a reform on the sugar market in 2009, under sugar industry restructuring, AMA paid out the whole amount of restructuring aid for sugar producers, i.e. PLN 1.29 billion (10% of the support received was given by sugar producers to 26.6 thousand beet producers and 94 service providers).

Since 2010, for the purpose of diversification of sugar industry, AMA has been providing aid under a National Restructuring Programme. The aid allocated to Poland for diversification amounts to EUR 34.4 million and is intended to two types of actions, of which EUR 23.7 million for modernization of farms (support for the purchase of new machinery and agricultural appliances in order to change the profile of farm activities and stop producing sugar beets) and EUR 10.7 million for the increase of added value of basic agricultural and forestry production (to support investment in the processing of agricultural products into energy).

## „Modernization of farms”

Refunds may cover up to 40% of eligible costs of purchasing new machinery and agricultural appliances. The maximum amount of aid for one farm and one applicant is PLN 50 thousand. Since 2010 until the end of June 2012, AMA paid PLN 89.3 million to 2 879 applicants under this measure (in the first half of 2012 PLN 21.6 million were paid out to 803 producers).

## „Increase of added value of basic agricultural and forestry production”

This measure is targeted at micro-, small and medium enterprises and at enterprises which employ not more than 750 workers, or the turnover of which does not exceed EUR 200 million a year, which are going to invest in gminas included in the restructuring process. Under this measure by the end of June 2012 support in the amount of PLN 22.3 million was provided to 16 applicants, who invested in machinery and appliances for the production of briquettes and pellets. In the first half of 2012 (until the end of June) financial support in the amount of PLN 10.7 million was provided to 4 entrepreneurs.

Between January 2010 – June 2012, the total of PLN 111.6 million were paid out to 2,895 beneficiaries by AMA from the funds of the National Restructuring Programme for the implementation of the measure: „Modernization of farms” and “Increase of added value of basic agricultural and forestry production.”

Under the mechanism: „Monitoring sugar production and sugar production levies” every year production levies are calculated and collected for a given financial year. In 2011, levies for 2010/2011 were collected in the amount of PLN 68.2 million from sugar and isoglucose producers. In 2012 the amount of sugar levies collected for 2011/2012 was PLN 75.4 million.

Between May 2004 - June 2012, AMA paid subsidies to potato starch production quotas (production premiums), which totalled PLN 76.3 million and were paid to over 860 thousand tons of produced potato starch. In 2011, the Agency issued 613 decisions to grant production premiums, and in the first half of 2012 – 465 decisions.

Under support of processing flax and hemp straw into fibre, since the accession till the end of June 2012 AMA paid PLN 2.8 million to 6.8 thousand tons of flax and hemp fibre.

As regards the maximum guaranteed amount of 13,538 tons of dry fodder allocated to Poland, in respect of which support may be granted, since accession till the end of June 2012 AMA paid PLN 5.7 million in the form of support. This support could be benefited every year by 8 processors approved by AMA.

Between 2004-2006, on the milk market AMA granted support for: purchase of butter by non-profit institutions and organizations – PLN 1.1 million, processing of butter, concentrated butter and cream – PLN 0.4 million, private storage of cheese – PLN 0.2 million, and private storage of butter – PLN – 92 thousand.

Due to smaller export demand and a big productions surplus, in 2012 Polish entrepreneurs benefited from private storage aid for butter. During the first seven months of 2012 AMA received 34 applications for private storage of 772 tons of butter. Since 1 January to 29 July 2012 nearly 123 thousand tons of butter were reported for storage in the entire EU. This is 34% more than in the similar period in 2011. Butter was stored in Holland, Germany, Ireland, France, Belgium, the UK, Denmark, Sweden, Spain, Poland, Austria, Romania and Lithuania.

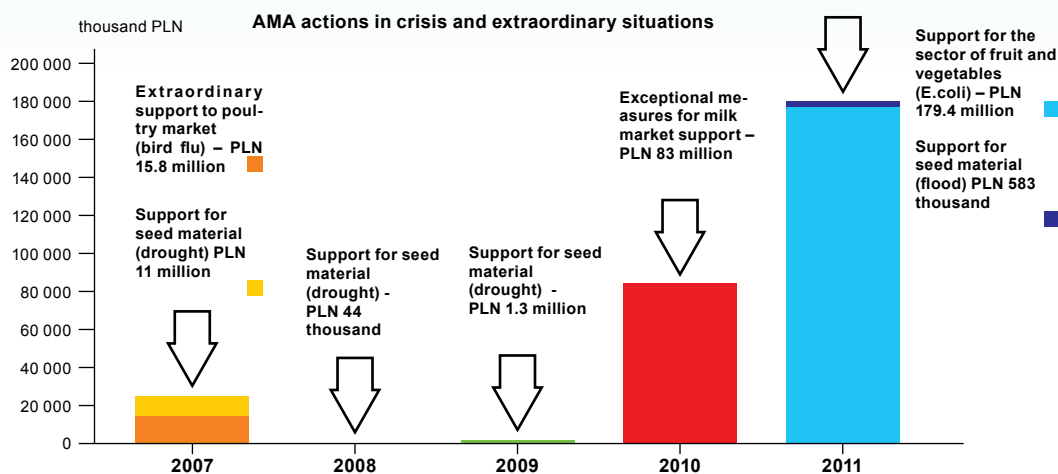
Between May 2004 - July 2012, AMA issued 1.6 thousand certificates for 36.6 thousand tons of butter and 96 certificates for 2.7 thousand tons of skimmed milk powder, intended to be used under the CAP mechanisms (support for private storage and intervention purchases) in the other EU Member States.

On the wine market, as at 30 June 2012 (i.e. in the marketing year 2011/2012), the records of AMA President included 26 producers or entrepreneurs who are not producers of wine (intended to marketing) made of grapes obtained from grapes cultivated in Poland. In the previous marketing year 2010/2011, those entities marketed 248 hl wine from Polish grapes. In the marketing year 2011/2012 the vineyards registered in a register kept by AMA's President covered the area of 58.6 ha. The surface area of grape plantations, from which 683.93 quintals of grapes were harvested, amounted to 20.98 ha.

The production of grape wine from the grapes collected in the marketing year 2011/2012 amounted to 428.47 hl. Moreover, until 30 June 2012, 13 decisions to register producers and entrepreneurs producing wine from grapes obtained from the Polish vineyards were issued in the new marketing year 2012/2013.

### Actions in crisis and extraordinary situations

Agricultural markets volatility and recurring crises situations triggered by climatic anomalies, animal diseases, contamination of products, etc. require rapid decisions concerning support to farmers who incur losses. AMA is profoundly experienced in administering such actions.



Source: AMA.

Types of support granted by AMA to agricultural producers in extraordinary and crisis situations:

- in 2011, as a result of a crisis in fruit and vegetables market due to Escherichia coli (EHEC), which reduced the consumption of fresh fruit and vegetables in the EU, AMA provided over 4.7 thousand vegetable producers with the amount of PLN 179.4 million. The support covered nearly 2.1 thousand ha of vegetable cultivations, mainly cucumbers and tomatoes;
- Support for seed material due to losses incurred by farms as a result of flood, landslides or hurricane in 2010 – until the end of 2011 the amount of PLN 583 thousand of support was paid out;
- in 2010, due to special support for milk market provided for to Poland by the European Commission, AMA paid out PLN 83 million to over 91.6 thousand of national milk producers who, as a result of financial and economic crisis, incurred significant losses and lost financial liquidity;
- support for seed material amounting to PLN 12.4 million was paid by AMA between 2007-2009 to farmers affected by drought in 2006 and 2008;
- producers of eggs and poultry received PLN 15.8 million to compensate losses caused by bird flu between 2006-2007.

### Measures concerning renewable energy sources

As far as monitoring the market of bio-components and liquid biofuel, as at 30 June 2012, the register of manufacturers kept by AMA included 36 entities operating in the field of manufacturing, storage or marketing bio-components (in 2011 there were 15 production entities which produced the total of 578 million litres of bio-components). At the end of June 2012, the register of farmers manufacturing liquid biofuel for own use included 17 farmers (in 2011 – 8 farmers, who jointly produced 25.4 thousand litres of methyl esters).

AMA monitors the production of agricultural biogas. As at 30 June 2012, there were 24 registered biogas plants, the power of which jointly amounted to 25.2 MW of electricity and 25.7 MW of heat. In 2011 in the process of methane fermentation, 16 biogas plants produced the total of 36.6 million m<sup>3</sup> of agricultural biogas, of which 73.4 GWh electricity and 88.8 GWh of heat were produced.

The Agency also controls the use of energy plants. As at 30 June 2012, there were 206 registered buying-in entities and 266 primary processing entities.

Farmers who planted perennial energy plants (birch, poplar, miscanthus and sida hermaphrodita) between 2008-2009 could apply to AMA for reimbursement of a portion of cost incurred. The Agency paid PLN 8.9 million to 106 beneficiaries for planting 1.9 thousand ha with perennial energy plants.

## Administering foreign trade

Agricultural Market Agency supports exports of agri-food products to third countries. Since the accession of Poland to the EU until 30 June 2012, the total of 47.6 thousand import/export permits concerning agri-food products were issued, including 36.4 thousand export permits. Among the export permits, 28.8 thousand permits were issued with a refund, the greatest amount thereof for the market of red meat (15.1 thousand), fresh fruit and vegetables – 5.3 thousand (in 2009, refunds on this market were abolished).

Since accession, nearly PLN 2.1 billion export refunds were paid by AMA to exporters of goods to third countries. The greatest amount of refunds included sugar (PLN 1.2 billion), red meat (PLN 351.8 million), and milk products (PLN 334.2 million).

Information obtained by the Agency, concerning possibilities of developing trade and investment cooperation with entities from other countries, including information on preferential exports, is provided to Polish entrepreneurs on the current basis by means of AMA website [www.arr.gov.pl](http://www.arr.gov.pl) (bookmark: „Information on support of international trade”) and distributed to unions, associations of producers and processors by e-mail ([eksporcer@arr.gov.pl](mailto:eksporcer@arr.gov.pl)).

## Informative function

Agricultural Market Agency collects, analyses, processes and provides access to market data concerning agri-food products. It also conducts information actions as a result of which broad access is possible to information on administrative mechanisms administered by AMA and conditions of participation in these mechanisms and on the situation on the agri-food market. These actions are to prepare beneficiaries as best as possible to use the EU and domestic support. Among disseminated information, an important role is played by publications (brochures and AMA Information Bulletin), as well as periodical market reports and analytical and forecast studies which present supply/demand and price situation on the agricultural market (they are disseminated to a broad range of recipients at AMA website [www.arr.gov.pl](http://www.arr.gov.pl) in the bookmark: „Market analyses and forecast”).

## International cooperation

Agricultural Market Agency's actions concerning international cooperation, aiming at substantial and technical support of agricultural sector institutions, are concentrated on three main areas of activity: participation in the process of CAP simplification, implementation of support schemes for third countries and support of domestic businesses in their trading with other countries.

Within the framework of cooperating with EU Paying Agencies and the European Commission, the Agency actively participates in preparing proposals for simplifications of the EU implementing provisions, by presenting them during the meetings of EC working groups and during conferences of the EU Paying Agencies' directors.

AMA actions related with support under the EU support schemes for non-EU countries are concentrated first of all on providing expert knowledge to agricultural institutions of countries such as Croatia, Serbia, Moldova and Ukraine.

The Agency participates in numerous conferences and meetings devoted to broadening international cooperation and development of trade in agri-food products; in 2010-2011 it took part in the preparations concerning Polish Presidency in the EU Council.

## AGENCY FOR RESTRUCTURING AND MODERNIZATION OF AGRICULTURE

Since 1994, the Agency for Restructuring and Modernization of Agriculture (ARMA) has been supporting actions for the development of agriculture and rural areas. In the first period of its operation it provided support mainly from the national budget, in the form of interest rate support to investment loans and working capital loans. Following Poland's accession to the EU, the scale of support increased together with the number of available support measures. The key role of ARMA was to pay out direct subsidies and rural development subsidies.

In December 2008, ARMA finished the implementation of RDP 2004-2006, having used the whole limit of funds granted to Poland. In June 2009, the last payments were effected under Sectoral Operational Programmes: „Restructuring and Modernization of Food Sector and Rural Development 2004-2006” and „Fisheries and Fish Processing 2004-2006”.

ARMA is an Implementing Authority and a Paying Agency for support instruments funded from the following EU funds earmarked for 2007-2013:

- European Agricultural Fund for Rural Development, from which all rural development actions under RDP 2007-2013 are funded;
- European Agricultural Guarantee Fund, from which CAP pillar I measures are implemented (direct payments, common organization of the market in fruit and vegetables, common organization of fish market);
- EFF, from which measures under Operational Programme „Sustainable Development of Fisheries and Coastal Fishing Areas 2007-2013” are funded.

Moreover, ARMA :

- implements national support instruments, since 2007 under new Community guidelines on public aid in agricultural and forestry sectors (in particular subsidies to preferential loans: investment and emergency loans);
- keeps a register of tagged farm animals (Animal Identification and Registration System);
- keeps and updates the system of agricultural parcels identification (LPIS).

The main ARMA beneficiaries include farmers, agri-food sector entrepreneurs, rural inhabitants, agricultural producer groups and representatives of fisheries sector. Wide social groups benefit from projects co-financed by the Agency and their effects may be seen and measured at the level of local as well as national economy.

Since the beginning of its operations until 30 June 2012, the Agency paid out PLN 159 billion under the administered support schemes for agriculture and rural areas, of which 92% were paid out in the period of Poland's membership in the EU, including under the following instruments:

- direct support systems PLN 77.0 billion (since 2004),
- RDP 2007-2013 PLN 35.8 billion (since 2007),
- state aid PLN 18.5 billion (since 1994),
- RDP 2004-2006 PLN 10.9 billion (2004-2008),
- SOP „Restructuring... 2004-2006” PLN 6.6 billion (2004-2009),
- SAPARD PLN 4.5 billion (2002-2006),

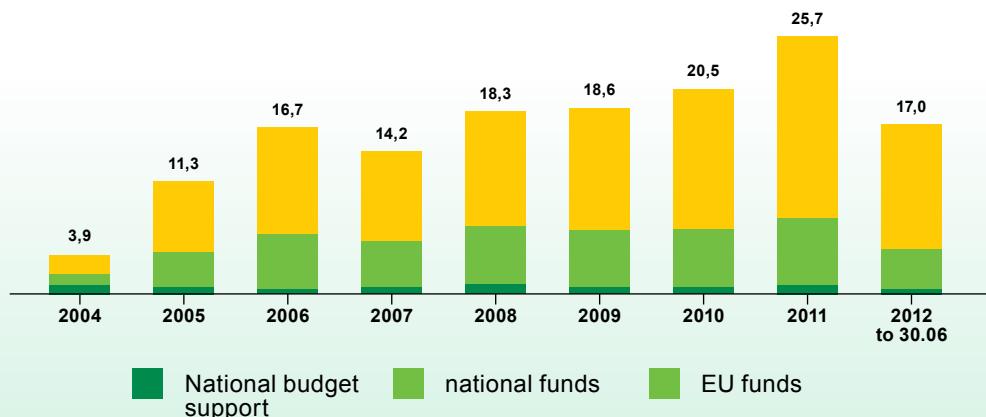


Fig. Annual payments of funds by ARMA under programmes co-financed by EU and under national budget support between 2004-2012, as at 30.06.2012, in PLN billion.

- Common Market Organization for Fruit and Vegetables PLN 3.1 billion (since 2004),
- OP „Sustainable Development of Fisheries Sector 2007-2013” PLN 1.6 billion (since 2007),
- SOP „Fisheries... 2004-2006” PLN 1.0 billion (2004-2009),
- Common Fisheries Policy PLN 1.5 million (since 2004).

The dynamics of ARMA support to beneficiaries has been growing systematically, and in 2011 it reached a record level of PLN 25.7 billion (Figure 1).

## Direct support systems

The most important EU measure under CAP, administered by ARMA, consists in direct payments schemes, covering approx. 1.4 million farmers. Under the last campaign (2011), ARMA paid PLN 14.1 billion to beneficiaries.

The structure of payments effected under direct support systems since their launch in Poland is presented in Figure 2.

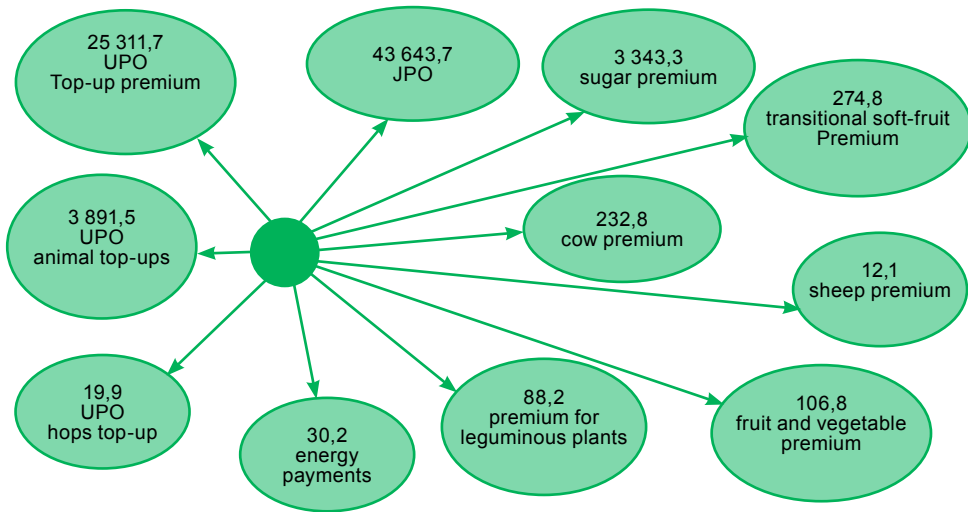


Fig. Structure of payments under direct support systems in campaigns 2004-2011. in PLN million, as at 30.06.2012.

Energy payments include support payments for birch or thornless rose used for energy production.

## RDP 2007-2013

As an accredited Paying Agency, ARMA pays support funds for all measures under RDP 2007-2013. By 30.06.2012 over 1 million beneficiaries received PLN 35.8 billion (Figure 3), including PLN 10.2 billion under the last years' commitments. This means that from among all the EU Member States Poland used the greatest amount of the EU support funds (indirect payments and advances) under RDP 2007-2013. In 2011 alone ARMA paid a record amount of PLN 10 billion to RDP 2007-2013 beneficiaries. The payments shall be paid until 2015.

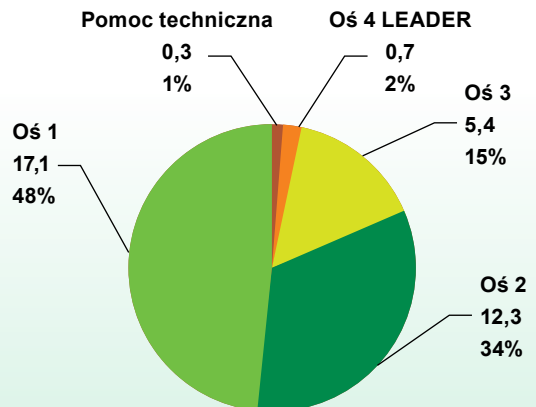


Fig. Amount of payments paid out by ARMA under RDP 2007-2013 in division into axes, in PLN billion and in %, as at 30.06.2012.

### Operational Programme: Sustainable Development of Fisheries Sector and Coastal Fishing Areas 2007-2013

Under OP „Sustainable Development of Fisheries... 2007-2013” undertakings are supported for achievement of durable balance between sea stocks and fishing capacity of the Polish fleet, and for the formation of modern and competitive fisheries sector in Poland. By 30.06.2012 ARMA extended PLN 1.6 billion to the beneficiaries of the fisheries sector.

#### Budget support

State budget support is currently being granted by ARMA in the form of interest rate support to loans, guarantees, sureties of payment of preferential investment and extraordinary credits, sureties of payment of student loans, co-funding cost incurred by agricultural producers for the disposal of dead animals, co-funding of costs insured for preparing an application for registration of geographical indications and designations of primary agricultural products. Since the beginning of ARMA operation, the amount of PLN 18.5 billion was paid out under this form of support, including PLN 833.9 million in 2011.

#### Animal Identification and Registration System

ARMA is also responsible for keeping a system of animal identification and registration in Poland. Its aim is to ensure food safety according to the EU requirements, and so to obtain a full access to the market of animal products in other EU Member States. ARMA keeps a register of tagged farm animals, i.e. cattle, sheep, goats and pigs, in a form of a computer system. The data base of this system includes information on animal keepers (producers' register), migrations (register of herd movement) and animal premises (registration of notification of events regarding animals). Based on information from farmers ARMA updates the animal register to introduce changes within the herd structure of cattle, pigs, sheep and goats. Currently the register includes information about 18.9 million animals.

More details about all the forms of support, under EU schemes and from the state budget, can be found on ARMA website: [www.arimr.gov.pl](http://www.arimr.gov.pl), and by calling a free number: 0 800 380 084 – operating 7 days a week between 7.00 a.m. – 9.00 p.m. Information concerning support offered by ARMA is also provided by the Agency's staff in Regional Branches and Poviats Offices.

### AGRICULTURAL PROPERTY AGENCY

Agricultural Property Agency represents the State Treasury for handling state property in agricultural sector. By July 2003 it was operating under the name: Agency of Agricultural Property of the State Treasury, which was established in October 1991. Property taken over by the Agency, mainly after the wound up state farms and from the State Land Fund, forms Agricultural Property Resources of State Treasury.

The Agency is self-financing, i.e. it does not receive any state money for its operations and maintenance. The cost of taking over State Treasury properties to the Resources, their restructuring, preparation for disposal (e.g. land surveys, registration in land and mortgage register, announcements about tenders), protecting historical objects, maintenance of non-productive property (e.g. a number of apartments) etc. and the cost of its maintenance are paid fully from revenues generated from its chartered operations. Moreover, since 2005 ARMA has been supplying the state budget with an amount resulting from a difference between revenues generated from the management of the Resources in a given financial year and funds spent for the implementation of chartered tasks. From 2005 till the end of July 2012 the Agency paid over PLN 7.9 billion to the budget. Moreover, the Agency was obliged to contribute the revenues from the sale of the property to a Compensation Fund from which money is paid for the Poles who once lived on the other bank of the Bug river for leaving their property outside the current boundaries of Poland. From 2006 until the end of July 2012, the Agency contributed over PLN 2.9 billion to the Compensation Fund. The total amount of payments to the state budget and to the Compensatory Fund from 2005 till the end of July 2012 amounted to PLN 10.8 billion.

While implementing tasks provided for in its charter and resulting from other regulations, the Agency operates in the scope of:

- creation and improvement of land structure of family farms;
- creation of conditions facilitating rational use of production potential of Agricultural Property Resources of State Treasury;
- restructuring and privatization of the State Treasury estate used for agricultural purposes;
- trade in property and other items of State Treasury estate used for agricultural purposes;
- administration of State Treasury property intended for agricultural purposes;
- security of State Treasury property;
- initiation of arrangement and agricultural operations on the land belonging to State Treasury and support for organizing private farms on the land belonging to State Treasury.

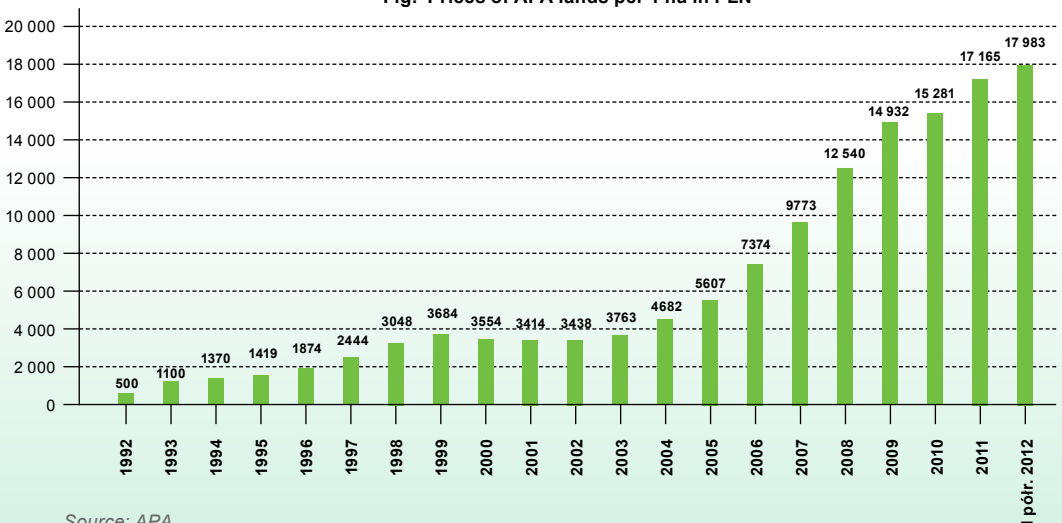
The Agency took over nearly 4.7 million ha land to the Resources. Apart from land, also other property was taken over to the Resources (mainly from the former state farms), the book value of which amounts to PLN 8.6 billion, including the liabilities of the former state farms towards approx. 30 thousand of creditors, for the total amount of nearly PLN 2 billion. These liabilities have been fully paid from privatization money. According to the information as at the end of June 2012, the Resources include approx. 1.9 million ha of land.

The structure of fixed assets taken over by the Agency includes: 336.8 thousand apartments and accompanying infrastructure (heating houses, hydrophore plant, sewage treatment plants, etc.), agri-food processing facilities, trade and service facilities, including: 858 distilleries, wine making plants and breweries, 269 meat processing plants and slaughter houses, 898 drying plants for cereals and green fodder, 717 fodder mixing facilities, 31 mills and groat mills, 75 cooling houses, as well as 415 shops, 147 hotels, guest-houses, restaurants and bars, 672 social, cultural and sports facilities.

State Treasury property taken over to the Resources is disposed of by means of sale or lease, which follow mainly in the form of unrestricted or restricted tenders. Since the beginning of its activity until the end of June 2012 over one million tenders were organized for the sale of land. In this period the Agency sold 2.25 million ha, mainly in Warmińsko-mazurskie, Zachodniopomorskie, Pomorskie, Dolnośląskie and Lubuskie Voivodeships, which results from the territorial location of the property included in the Resources.

One should notice that in land sales transactions organized by the Agency, following Poland's accession to the European Union in 2004 prices quickly rose (conf. Fig. 1). The highest increase was noted in 2007 (by 33% year to year). Between 2007-2009 the dynamic increase of the price of agricultural land included in the Resources was halted, and in 2010 the prices became stable. In 2011 there was a 12.3% increase in comparison to the previous year.

**Fig. Prices of APA lands per 1 ha in PLN**



Source: APA.

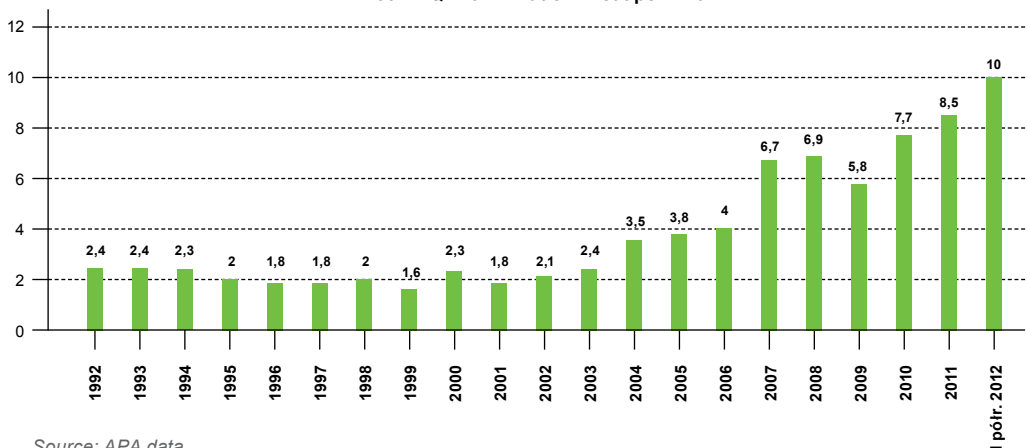


Regardless of the sales, by the end of 2011 the Agency disposed permanently of over 583 thousand ha, including i.a. 152.6 thousand ha to State Forests, 52.9 thousand ha to local government units, approx. 85.8 thousand ha to church entities of various denominations, 184.6 thousand ha to regional water management offices (lands covered with surface waters), nearly 23.8 thousand ha by means of in-kind contributions to companies. Other eligible entities received the total of 83 thousand ha in various forms (transformation of perpetual usufruct into a freehold title, consolidation and substitution of lands, abolition of co-ownership, etc.).

Lease is another form of disposing of the land concerned. Currently, 1.4 million ha of land included in the Resources (i.e. 75%) is under lease. The greatest amount of land under lease is located on the area of APA branch offices in Wrocław, Szczecin, Poznań and Olsztyn. However, the importance of lease in the process of land disposal has been declining. This is demonstrated by the fact that during the whole previous year only 11 thousand ha was leased, and until the end of May 2012 - only 4,407 ha.

In the majority of leases rent is expressed in decitonnes (dt) of wheat per hectare. In the first quarter of 2012 it reached 10.0 dt/ha for newly executed leases. In 2011, the average rent was 8.5 dt of wheat per 1 ha and was at a slightly higher level than in 2010, when it amounted to 7.7 dt/ 1 ha, but at a considerably higher level than in 2007, 2008 and 2009 – 6.7 dt/ha, 6.9 dt/ha and 5.8 dt/ha, respectively. For the sake of comparison: the rent obtained from the same leases in 2006 amounted to 4.0 dt/ha, and in 2005 and 2004 – 3.8 dt/ha and 3.5 dt/ha, respectively. The average rent for all the current leases remains at a low level and amounts to approx. 3.0 dt/ha (conf. Fig. 2).

**Figure. The average rent on land leased under leases executed by APA between 1992 – Q1 2012 in dt of wheat per 1 ha**



Source: APA data.

Apart from agricultural land, Agricultural Property Agency holds approx. 100 thousand ha of non-agricultural land. This includes parcels intended for industrial developments, trade and services, residences or sports and leisure. These properties are attractively located and their legal status is clear, so are the acquisition procedures. A portion of the lands is currently used for agricultural purposes and requires modifications of Local Master Plans. In 2011 the Agency sold over 1.2 thousand ha of such lands for the total of PLN 245.5 million.

APA supervises the operation of 46 plant and animal breeding companies which are of specific importance for the national economy. These companies pursue creative and preservation breeding and collect the most precious genetic material of plants and animals, which is decisive for biological progress. These companies play a leading role in plant breeding, they have 51.9% shares in agricultural plant varieties and 60.5% share among the varieties of vegetable plants originating from domestic breeding, registered to the Register of Varieties. Animal breeding companies breed mainly cattle; pigs and sheep are bred only to a small extent. Horse breeding stocks and stallion herds, apart from their main ac-

tivities, namely horse breeding, keep cattle and produce milk. Thanks to this they remain economically stable and have funds for breeding. APA company holds genetic resources in the form of domestic animal breeds which are adjusted to domestic soils and climate conditions.

As mentioned earlier, the Agency is a task-oriented institution. Its main task is to privatize the state agricultural property, and until this process is completed – to rationally manage the estate held. Although the Agency disposed permanently of 60% of the surface area of the State Treasury properties included in the Resources, it remains an important agricultural policy support tool, e.g. in shaping agricultural regime and implementing important public goals. One has to point out that since the available surface area of the Resources has been declining, the mission of the Agency shifts from “making land available” for various goals to “financial support” of these goals. This in turn reinforces intensified sales of the property held within the Resources.

## AGRICULTURAL SOCIAL INSURANCE FUND (KRUS)

Agricultural Social Insurance Fund (KRUS) is a social insurance institution which offers a different system of social insurance for farmers than the common system of insurance, based on Agricultural Social Insurance Act of 20 December 1990 (Polish Journal of Laws [Dz.U.] of 2008, No 50, item 291, as amended). KRUS President is a central government administration body subordinate to a minister competent for rural development. KRUS tasks include:

- provision of insurance to farmers and those cooperating with farmers in conducting agricultural activities (spouse and other members of family) and payment of insurance premiums,
- granting and payment of insurance benefits,
- medical decisions to determine the right of those insured to disability benefits or to verify health condition of those insured,
- conducting preventive actions against accidents at work on a farm and occupational diseases, as well as health promotion actions,
- conducting medical rehabilitation for persons authorized to KRUS benefits, those totally unable to work on a farm, but with prospects to recover as a result of treatment and rehabilitation, or to those in risk of becoming totally unable to work on a farm.

As at the end of 2011, there were 1.52 million persons insured in KRUS and pensions and disability benefits were paid out to approx. 1.33 million.

Moreover, KRUS implements a number of other tasks, successively assigned by the state based on separate legislation. These tasks include, i.a.:

- health insurance of those subject to agricultural social insurance, involving i.a. recording, calculating, collecting and transfer to the National Health Fund of premiums due to health insurance of farmers and their family members (premiums paid by the insured themselves as well as those paid by the state on behalf of farmers) pensioners and those disabled;
- payment of civil benefits to agricultural beneficiaries, e.g.: combatant benefits, energy payments, benefits for the former soldiers of alternative military service, deported people, civil casualties of war who became blind, compensatory benefits.

Since 2004, KRUS has been participating in implementing tasks concerning coordination of social security systems in the EU Member States (EEA and Switzerland), resulting from Regulations of European Parliament and of the Council 883/2004 and 987/2009.

The system of social insurance of farmers is funded based on 3 state target funds: Disability Pensions and Retirement Benefits Fund, Prevention and Rehabilitation Fund and Administrative Fund, as well as Insurance Premium Fund which has been operating outside the state budget.

Disability Pensions and Retirement Benefits Fund is intended to fund disability pensions and retirement benefits as well as premiums due to health insurance of farmers. The Fund is created out of farmers' premiums due to retirement and pension insurance and is also subsidised by the state budget. In 2012, this subsidy shall amount approx. PLN 15.24 billion, including approx. 1.78 billion for covering health insurance premiums.

Prevention and Rehabilitation Fund is intended to fund KRUS actions in the scope of preventing accidents and medical rehabilitation. The Fund is created from deductions from insurance premium fund, including a budget subsidy. In 2012 this subsidy shall amount to approx. PLN 1.04 million.

Insurance Premium Fund is a target fund outside the state budget, and it has legal personality. This Fund funds accident benefits and maternal benefits. This Fund is self-financing, which means that benefits funded from this Fund, related with the risk of accident when working on a farm or illness or maternity, are covered fully from the premiums paid by those insured.

KRUS provides social insurance to farmers in the following structure: headquarters, regional branches covering particular voivodeships and field offices covering several gminas. In total KRUS has about 270 offices all around Poland.

KRUS is a member of the biggest international associations including social insurance institutions in the world: since 1992 it has been ISSA member (International Social Security Association), which includes social insurance institutions from over 130 countries, and member of IAAMRH (International Association of Agricultural Medicine and Rural Health), dealing with rural medicine.

### KRUS activity at the world ISSA forum

Between 28 April - 1 May 2013, KRUS is going to be a co-organizer of 37th International Seminar of ISSA Section for Agricultural Prevention, devoted to "Prevention of Occupational Risks in Agriculture". KRUS is going to prepare this prestigious event planned in Erding, Germany, together with a German agricultural insurance institution - Spitzenverband der Landwirtschaftlichen Sozialversicherung (LSV-SpV).

Participation in the Seminar is open to all institutions and persons interested in hearing lectures, as well as to those who are not ISSA members, who would like to participate in a discussion concerning:

- musculoskeletal system diseases in agriculture, forestry and horticulture,
- risks related with the use of chemical substances in agriculture,
- education and training in work safety and health in agriculture,
- safety and health in farms/bio-energy plants.

The debate is to be simultaneously translated into German, English, French, Spanish and Polish. It is worth to remind that currently ISSA includes 335 members representing institutions and organizations of social insurance from over 157 countries of the world. Section on Prevention in Agriculture is represented by experts who study mainly safety and hygiene in agricultural work, social security and health situation of agricultural community, as well as prevention of accidents. Among the European members, the Section includes i.a. agricultural social insurance institutions from Germany, Austria, France, Finland, Spain, Portugal. Planning and implementing the Section's chartered goals is supported by a Council of Advisors, currently represented by representatives of Sweden, the UK, Tunisia, Switzerland, Turkey and Poland.

KRUS membership of ISSA dates back to 1991. Since 2008 KRUS President has been the Chairman of the Section on Prevention in Agriculture. The decision of ISSA General Assembly of the Section on Prevention in Agriculture to confer such a prestigious position to KRUS was the proof of acknowledgment of the standards of KRUS operations and actions to improve working conditions of individual farmers as well as rural health, for effective contribution of KRUS to improvement of quality and safety of technical means of production and services for agriculture.

According to the charter of ISSA Section on Prevention in Agriculture, a representative from a country of origin of the Section's Chairperson also conducts the Section Secretariat. Due to this fact, during the term of the KRUS President, matters such as organization of meetings and operations of the Sections are handled by KRUS Headquarters in Warsaw. A function held in ISSA authorities as well as running the Section's Secretariat obliges KRUS to participate in international meetings and to initiate various actions.

Eliminating the causes of accidents and preventing them on a farm, reduction of effects of such events, educating children and youth in agricultural schools, and especially training for farmers on the protection of health and life on a farm – all these are statutory tasks of KRUS. KRUS presented its ac-

tions to this end, which were much praised on international forums, including ISSA Section on Prevention in Agriculture. In 2009, between 9-11 September, the Section organized a 36th International Seminar on „Safety and Health in Agriculture”. The seminar was devoted to exchange of experience concerning safe conditions of work and improvement of health situation of rural community. It was held with the participation of many guests, including the Minister of Agriculture and Rural Development, ISSA Secretary General Hans Horst Konkolewsky, Vicepresidents of Agricultural Section Paivi Huotari and Henry Jouve, Council of Advisors of ISSA Section on Prevention in Agriculture and the Council of Agricultural Social Insurance. Issues discussed during the meeting were elaborated on in a KRUS quarterly „Insurance in Agriculture: Materials and Studies” (No. 36/2010). During the debate, the Polish side underlined i.a. that although in many EU Member States legislative solutions had been in place to improve safety and health of work in agriculture, which are recommended to all of them by the European Commission, they were difficult to transpose to Poland. These actions are constrained by lack of relevant legislation in the field of agriculture and rural areas, as well as by a specific area structure of family farms and their income situation.

In September 2011, in Istanbul, Turkey, ISSA, ILO and Turkish Ministry of Employment organized the 19th World Congress of Work Safety and Hygiene. During this international event, ISSA Section on Prevention in Agriculture could conduct one of the Congress symposiums on work safety in agriculture. The symposium enjoyed quite an interest, it was attended by approximately 100 participants from all around the world. The popularity and attractiveness of subjects discussed at the seminar was manifested by filing an the application by the Turkish delegation for a membership of the Section. This was effected in February in Paris during a meeting of the Section Management Board. The list of correspondence members of the Section was broadened to include UTEM (IATC - International Agricultural Training Centre) from Ankara.

KRUS President, while presiding over ISSA structures, can disseminate international solutions in the scope of work safety in agriculture. Presenting the system of social insurance of farmers in Poland on an international forum is one of the most important missions for KRUS during its presidency in the ISSA Section for Prevention in Agriculture.

Another opportunity for KRUS to present its mission and prevention strategy shall be the 37th international seminar prepared by the Section under KRUS President Artur Brzóska, who is currently serving his term as the President of ISSA Section on Prevention in Agriculture.

## SCIENTIFIC AND RESEARCH PREMISES

In Poland, scientific research in the broadly understood field of agriculture is conducted by:

- **12 research institutes supervised by the Minister of Agriculture and Rural Development:**
  - Institute of Agricultural and Food Biotechnology in Warsaw,
  - Institute of Agricultural and Food Economy – National Research Institute in Warsaw,
  - Plant Breeding and Acclimatization Institute – National Research Institute in Radzikowo,
  - Institute of Plant Protection – National Research Institute in Poznań,
  - Research Institute of Horticulture in Skierniewice,
  - Stanisław Sakowicz Institute of Inland Water Fisheries in Olsztyn,
  - Institute of Technology and Life Sciences in Falenty,
  - Institute of Soil Science and Plant Cultivation – National Research Institute in Puławy,
  - Institute of Natural Fibres and Medicinal Plants in Poznań,
  - National Research Institute of Animal Production in Krakow (Balice),
  - National Marine Fisheries Research Institute in Gdynia,
  - National Veterinary Research Institute in Puławy.
- **47 faculties at 9 tertiary schools supervised by the Minister of Science and Tertiary Education,**
- **9 scientific institutes of Polish Academy of Sciences (PAN),**
- **and partially, research institutions supervised by the Minister of Environment, Minister of Economy and Minister of Health**

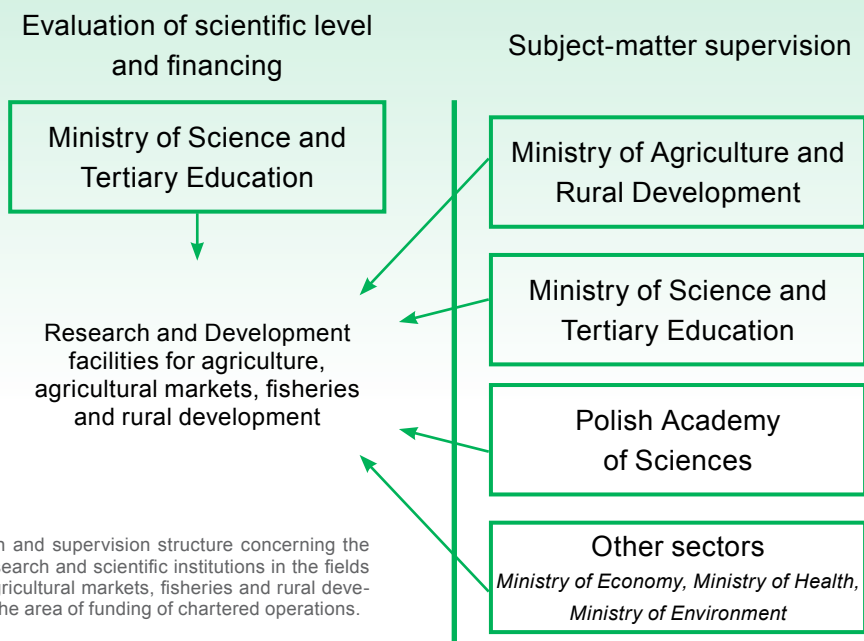


Fig. Organization and supervision structure concerning the operations of research and scientific institutions in the fields of agriculture, agricultural markets, fisheries and rural development, and in the area of funding of chartered operations.

The sectoral institutes conduct high level scientific research and their results effectively support decision making processes in agricultural policy implemented by the Ministry of Agriculture and Rural Development. Moreover, 7 of them hold a prestigious status of a National Research Institute, and 9 implement multiannual programmes commissioned by the Ministry of Agriculture.

### Funding

Basic funds for scientific, research and development in agriculture are obtained from the following resources:

- state subsidy of the Ministry of Science and Tertiary Education,
- budget of the Ministry of Agriculture and Rural Development (for implementing tasks under multiannual programmes, biological progress and environmental research),
- participation of institutions in state and international grants and technical and scientific cooperation programmes,
- rendering services and conducting scientific projects for economic entities,
- other sources e.g. advisory services and publishing information, interest on capital, lease of property, etc.

### Multiannual programmes

Research institutions, supervised by the Minister of Agriculture and Rural Development, are currently implementing 9 multiannual programmes with the aim to provide public services which are particularly important from the point of view of the state policy, including the monitoring of current phenomena and transformation in agri-food sector and in rural areas, and in setting quality standards necessary to define the criteria of secure food production and processing. Moreover, another multiannual programme is being prepared.

### Intellectual potential

Scientific potential to support a broadly understood agricultural sector (agriculture, fisheries, agricultural markets, processing, life quality in rural areas and rural development) is represented by over 7 000 workers bearing scientific titles and degrees.

Academics have implemented their mission by conducting research, innovation works, implementation works and dissemination actions. They actively participate in systemic changes and modernization processes of Polish agriculture – in increasing its effectiveness, competitiveness and food quality. Their works support national agricultural policy as well as Common Agricultural Policy and EU Fisheries policy.

	MARD research institutes	PAN Research institutes	Research institutes of other sectors	Universities/other tertiary schools	Total
Total number of academics, of which	3 895	558	1 108	10 211	15 772
professors or associate professors	161	142	46	903	1 252
PhD/assistant professors	144	99	32	824	1 099
Ph.D. holders	612	283	196	3 573	4 664

Table Agricultural scientists.

## International cooperation

In order to provide conditions for and tighten cooperation with the EU partners, the following Competency and Excellency Centres were established at the research institutes of the Ministry of Agriculture and Rural Development:

- Crop Improvement Centre for Sustainable Agriculture [CICSA] – at the Plant Breeding and Acclimatization Institute,
- Centre of Excellence in Marine Fisheries Sciences [POLMARF] – at the National Marine Fisheries Research Institute,
- Research Centre of Excellence in Sustainable Pomology [Pomo Centre] – at the Research Institute of Horticulture,
- Protection of Land and Water Quality and Sustainable Development of Rural Areas [PROLAND] – at the w Institute of Soil Science and Plant Cultivation,
- Renewable Energy Centre of Excellence and Competence in Poland [RECEPOL] and Transfer of knowledge in agricultural engineering [TRAGEN] at the Institute of Technology and Life Sciences,
- Medical plants in nutrition and medicine – a step towards integration engineering with European standards [MEDNAM] – at the Institution of Natural Fibres and Medicinal Plants.

Moreover, a Centre for Advanced Technologies was established by the Research Institute of Horticulture, the task of which is to improve the conditions of practical implementation of research results. Scientific and research workers are also engaged actively in international cooperation under the 7th EU Framework Programme and under ERA NET and EUROAGRI Programmes. They have been i.a. coordinating the tasks of a Working Group for the scientific programme “Sustainable Agriculture in the Baltic Sea Basin” within the framework of Standing Committee for Scientific Research in Agriculture by the European Commission.

Work is being continued in the Virtual Institute of Sustainable Agriculture. It is a commonly accessed electronic information and scientific programme operating on-line, with continuously updated data base.

## Events

In recent years upon the Ministry of Agriculture and Rural Development initiated two Congresses of Agricultural Sciences, during which solutions were defined in order to fully integrate scientific policy with the agricultural policy. Presented conclusions related not only to current economic or social needs, but pointed to the most important areas of scientific research in agriculture in short and middle terms. Coordination of actions of all the scientific and research institutions working for agriculture and related sciences is vital to the future and economic development and social development of rural areas – these subjects attract particular interest of the Minister of Agriculture and Rural Development. Good coordination should ensure better use of intellectual potential, implementation of comprehensi-

ve and useful scientific research and rational management of the available budget intended for science.

Conclusions from both Congresses show that research should be conducted to seek the most favourable form of Polish agriculture development, account taken of regional conditions, rational management of water, soil and air resources, search of plant varieties, including plants with high protein content, which are resistant to drought and pests. Research in breeding should make use of the latest world trends and achievements, taking account of genetic research and its potential effect on environment and food security. Important discussion issues included the state and degree of extending technical infrastructure on farms as well as in rural areas, provision of the best possible sources of access to energy for agricultural and processing sector, including renewable energy.

A need was indicated to implement huge interdisciplinary research projects resulting from the need to practise, which would especially take account of:

- increase of economic effectiveness of agriculture and processing, with a particular role of food products' quality,
- principles of sustainable development of agriculture, food processing, fisheries and rural areas,
- innovativeness of products and new technologies to improve competitiveness of agri-food sector,
- national strategic goals in relation to Common Agricultural Policy and Fisheries Policy, as well as EU framework programmes.

During the Polish Presidency, on 21 September 2011 an international conference was held in Brussels on „Soil organic matter – old truth, new challenges“. It was organized by the Minister of Agriculture and Rural Development and EC Directorate of Research and Innovation. Guidelines and programme of the conference were prepared by the Institute of Soil Science and Plant Cultivation in Pulawy. Over 150 participants took part in the conference, mostly from the EU Member States, representing the most important scientific institutions and administration. The Conference was a good opportunity to summarize and assess hitherto effects of agri-environmental actions targeted at the preservation and renovation of soil organic matter resources, and gave a clear sign to a decision makers that a need has arisen to develop new, more effective instruments based on current knowledge and agro-technical practice. All the conference materials are available at [www.soilconference.eu](http://www.soilconference.eu).

Moreover, also in September 2011, under the auspices of the Minister of Agriculture and Rural Development, an international conference was held to discuss „**Food and Nutrition in 21st century**“, which was attended by over 400 participants from Europe, and its results influenced the improvement of the image of agricultural sciences and Polish food at international level.

## AGRICULTURAL ADVISORY SERVICES

Agricultural advisory services have had a long tradition in Poland. Basic institutions which render agricultural advisory services in Poland include agricultural advisory centres (ODRs) operating in each voivodeship pursuant to Agricultural Advisory Services Act. ODRs are legal entities and since 1 August 2009 they have been reporting to relevant voivodeship parliaments.

Each of the 16 ODRs has a similar structure defined by the Minister of Agriculture and Rural Development by an ordinance. Basic tasks of ODRs include rendering advice to farmers in farm management according to the EU requirements, and support of sustainable development of rural areas, including promotion of entrepreneurship, activating rural communities, development of tourism and rural tourism, etc. ODR use various education techniques – they organize training, courses, conferences, seminars, fairs, exhibitions, contests, as well as publish magazines (usually monthly magazines) and brochures, and have their own websites.

ODRs actions are supported by Agricultural Advisory Headquarters (CDR) with three branch offices located in Poznań, Krakow and Radom, which report to the Ministry of Agriculture and Rural Development. CDR is responsible for developing skills by agricultural advisors and keeping official lists of agricultural advisors which are authorized to give advice in respect of agriculture, forestry, agri-environmental schemes, as well as keeping a list of environmental experts.

CDR tasks also include conducting inspections of private advisory entities accredited by the Ministry of Agriculture and Rural Development, who – together with ODRs and agricultural chambers, are authorized to render advice under RDP 2007 – 2013 Measure: “Use of advisory services by farmers and forest holders”. Thanks to funds linked to this measure, farmers can get financial support for using the services, in the amount of 80% of the cost of advice (including most of all the cost of adjustment of a farm to the requirements of cross-compliance). The current list of accredited agricultural advisors includes 157 entities who are authorised to give advice on agriculture and 271 entities who are authorised to give advice on forestry. Detailed information on the addresses and contact data and on the advisory officers of all the advisory institutions – ODRs and private institutions – can be found on MARD website: [www.bip.minrol.gov.pl](http://www.bip.minrol.gov.pl), bookmark: Registers, Archives, Lists.

### AGRICULTURAL SCHOOLS

Public agricultural schools are run by local government units (mainly of poviát level), and by the Minister of Agriculture and Rural Development. According to current information, the Minister of Agriculture and Rural Development runs 45 agricultural schools in which 12 thousand students study under a supervision of approximately 1430 teachers. Practical training in those schools is conducted based on school workshops and practical laboratories, school farms, as well as individual farms cooperating with schools, ODRs, food processing plants, hotels and restaurants, agricultural research institutes. Agricultural schools provide training in 27 professions in such domains as agricultural production, horticulture, agricultural technology, food processing, agribusiness, landscape design, tourism, catering services, inland water fisheries, veterinary science, environmental engineering and soil irrigation. The greatest number of students of the schools graduate with a diploma of professional farmer – 2,921, agricultural mechanic- 1,802, food and household specialist – 1708, agribusiness specialist – 1,465. Since 1 September 2012 recruitment to schools has taken place according to a new modified classification of jobs, according to which agricultural schools shall educate in 25 professions. While running agricultural schools, the Minister of Agriculture and Rural Development is able to influence quality and effectiveness of agricultural training, and so to shape human resources policy of the agri-food sector. Agricultural schools are to provide their students with knowledge and vocational skills which make it possible for the graduates to find a job in agricultural services sector and to be competitive in the conditions of free market economy, as well as to prepare them for constant upgrading their skills and vocational qualifications. This is why the Ministry of Agriculture and Rural Development undertakes actions to modernize the schools to become modern centres for agricultural education, with good training equipment and properly prepared teachers who educate in various professions depending on the needs of the agri-food sector. The schools are to influence the environment through organizing various forms of educations addressed to youth as well as to adult rural inhabitants, and they are to cooperate with various entities promoting agricultural education, agriculture and rural areas. In order to fully implement their guidelines, MARD takes actions to modify curricula and manuals to adjust them to changing production and rural life conditions, to promote module education, prepare teachers of vocational subjects and make them upgrade their skills (the main role here is that of the Centre For Agricultural Education in Brwinów – entity subordinate to MARD), as well as to provide schools with suitable facilities for practical training.

## THE STRATEGY OF SUSTAINABLE DEVELOPMENT OF RURAL AREAS, AGRICULTURE AND FISHERIES 2012-2020

Rural areas in Poland are the place of life, work and leisure for many people. They also play a number of functions related with production (agricultural and non-agricultural) as well as environmental protection and the provision of public goods. The majority of natural protection forms is realised in these areas, thus the direction of rural areas development has a key importance for preserving and protection of Poland's natural environment, especially that forestry, agriculture and fisheries are the main types of activities which implement the goals related with natural resources protection.



In the last decade rural areas, agriculture and fisheries have undergone changes, which were more dynamic in character than the ones undergoing in urban areas. Statistics and results of research are a good proof thereof. According to periodical research commissioned by MARD on the Polish rural areas and agriculture<sup>3</sup> there are less and less people in whose opinion Polish rural areas are not changing, and at the same time more and more people say that the Polish rural areas are developing. More and more people are satisfied with their living in rural areas and not in a city, and they would not move to a city even if they could (according to information from 2011, nine in every ten rural inhabitants are happy to live in the country and not in a city, and only 17% of rural inhabitants would like to move to a city). However, despite positive effects of changes, disproportions in the life standard have still been quite big (access to infrastructure and private services and their quality, access to means of transport and electricity) between rural areas and the city, and so are internal disproportions in this respect in rural areas.

The analysis of observed changes and a discussion concerning the future of Community policies post 2013 were one of the assumptions to prepare a comprehensive document in a form of a strategy, in which directions of development would be shown for rural areas, agriculture and fisheries in Poland. The decision of preparing such a document, including the 2020 perspective, was made by the Council of Ministers on 27 November 2009 by adopting a „A Plan to Organize Development Strategy”, which assumes the establishment of nine integrated development strategies to implement middle- and long-term strategy of Poland’s development. One of them is the Strategy of Sustainable Development of Rural Areas, Forestry and Fisheries 2012-2020<sup>4</sup> The Strategy is coordinated by the Minister of Agriculture and Rural Development. It was developed by over 40 independent experts from agricultural universities and research-development organizations. The Strategy was developed for nearly 2 years and the process was quite open. The draft Strategy was twice subject to broad social consultations and inter-ministerial arrangements. It was also presented on various forums, such as inter-ministerial Coordinating Committee for Development Policy, Parliamentary Committee for Agriculture and Rural Development, Task Force for Rural Areas and Agriculture of Joint Commission of Central Government and Local Governments, Task Force for National Strategic Documents by the Council of Voivodeship Governors.

The Strategy assumes a model of sustainable and multifunctional rural, agricultural and fisheries development, and actions to be taken in the 2020 perspective have been designed based on five key issues, namely human capital, life standard, safety, competitiveness and environment. These actions were defined based on the analysis of strengths and weaknesses and opportunities and risks concerning rural areas, agriculture and fisheries. Account was also taken of development objectives set until 2020 for Poland and the European Union. The main goal of the Strategy is to improve the quality of life on rural areas and effective use of their resources and potentials, including agriculture and fisheries, for sustainable development of Poland. Moreover, five objectives were defined, which refer to General Guidelines for Economic Policy of the Member States and of the Union. Integrated Guidelines concerning the Strategy “Europe 2020” (the reference is showed in the figure below)

- Objective 1. Increase of the quality of human and social potential, employment and entrepreneurship in rural areas;
- Objective 2. Improvement of life standard on rural areas and improvement of their spatial accessibility;
- Objective 3. Food security;
- Objective 4. Increase of productivity and competitiveness of agri-food sector;
- Objective 5. Environmental protection and adaptation to climatic changes in rural areas.

In quantitative terms, the objectives of the Strategy are coherent with the objectives of the EU 2000 Strategy (Figure 2) and they refer to the objectives of the National Programme of Reforms 2012/2013.

Specific objectives were ascribed priorities, and priorities were ascribed intervention objectives (Figure 3), which meet new civilization challenges, such as i.a.: aging society, climate changes, generation change, development of information technologies, territorial mobility triggered by job seeking and effect of worldwide demographic situation on food security. Agriculture and fisheries are presented as an integrated element of rural development policy and agri-food sector and only in specific cases these issues are presented separately (e.g. in case of environmental actions specific for agriculture or fisheries).

<sup>3</sup> Research conducted by means of individual interviews among rural inhabitants on a sample of at least 1000 subjects.

<sup>4</sup> The document is available on MARD website: <http://www.minrol.gov.pl/pol/Aktowka/Ogloszenia/Strategia-zrownowazonego-rozwoju-wsi-rolnictwa-i-rybactwa-na-lata-2012-2020>

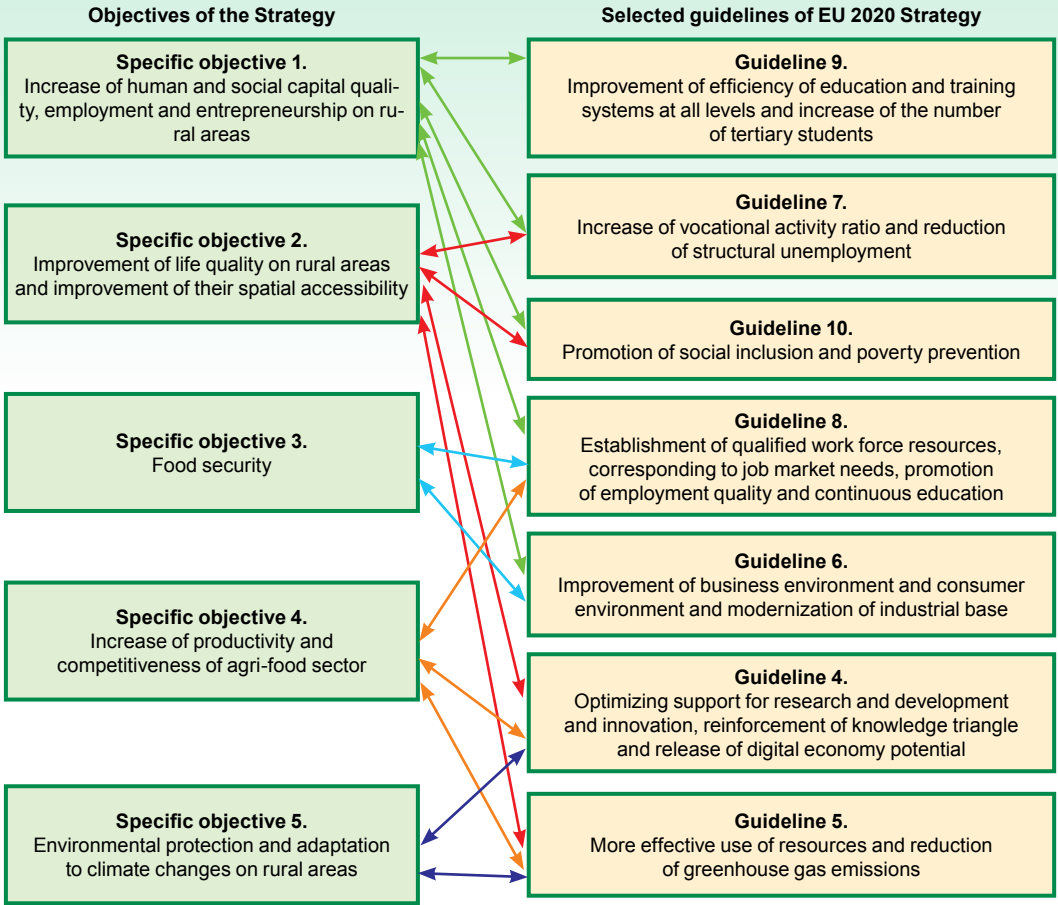


Fig. Interrelation of the Strategy goals with the „EU 2000” Strategy guidelines. Source: Strategy for sustainable development of rural areas, agriculture and fisheries 2012-2020, p. 19.

The Council of Ministers adopted the „Strategy of sustainable development of rural areas, agriculture and fisheries 2012-2020” on 25 April 2012. The document is a starting point for programming the EU funds for 2014-2020 in Poland. The Strategy’s budget is going to be financed in nearly 48% from the EU funds, and thus the accessibility and allocation of measures from Cohesion Policy and Common Agricultural Policy shall have a big impact on the level of achievement of the Strategy’s objectives.

Quantitative objectives of the Strategy:
<ul style="list-style-type: none"> <li>• Reduction of the percentage of people living below a relative poverty level on rural areas to 18% (from 26%)</li> <li>• Increase of employment of persons 15+ in rural areas to 60% (from 50.4%)</li> </ul>
<ul style="list-style-type: none"> <li>• Increase of percentage of rural children between the age of 3-5 who attend kindergarten on rural areas to 65% (from 43%)</li> <li>• Minimising the difference of average results of final exams in primary schools (from 0.866 to 0.95)</li> </ul>
<ul style="list-style-type: none"> <li>• Preservation of at least 14 million [ha] of arable areas kept in good agricultural culture [ha]</li> <li>• Reduction of GHG emissions from agriculture expressed as a CO2 equivalent of total GHG emissions in Poland to 10% (from 11.75%)</li> </ul>
<ul style="list-style-type: none"> <li>• 7% internal input for total R&amp;D in Poland to be earmarked for R&amp;D in agriculture (increase from 6.29%)</li> </ul>

Quantitative objectives of EU 2020 Strategy”:
<ul style="list-style-type: none"> <li>• Reduction of the number of people in risk of poverty by 20 million</li> <li>• 75% of employed persons aged 20-64</li> </ul>
<ul style="list-style-type: none"> <li>• Reduction of the number of persons who finish education too early to 10%</li> <li>• Increase to at least 40% of the number of young people with a university degree</li> </ul>
<ul style="list-style-type: none"> <li>• objectives „20/20/20” in respect of climate and energy</li> </ul>
<ul style="list-style-type: none"> <li>• 3% EU GNP for R&amp;D investment</li> </ul>

Fig. Interrelation of selected indicators of the Strategy guidelines with the EU 2000 strategy. Source: Strategy of sustainable development of rural areas, agriculture and fisheries 2012-2020, p. 57.

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

Two simultaneous processes under way in the EU are going to decide about the shape of Common Agricultural Policy post 2013 – negotiations of Multiannual Financial Framework (MFF) 2014-2020 and negotiations of new regulations in particular CAP areas. Negotiations of MFF accelerated when European Commission presented its budget communication in June 2011. Then, in October 2011 the EU Agricultural Commissioner Dacian Cioloș presented a package of legislative proposals for the revised CAP. Since that time intensive work has been under way in the EU Council as well as in the European Parliament – both institutions must hurry up with their decisions so that the new Common Agricultural Policy can enter into force on 1 January 2014..

### Budget framework

In its communication on MFF entitled: „A Budget for Europe 2020” (COM(2011)500), the Commission proposed not only ceilings for all the EU policies. In the scope of CAP, the document defined numerous important elements which constitute the basis for the future changes of the policy, including:

- Gradual convergence of direct payments among the Member States (increasing the payments in the Member States which receive below 90% of the EU average by one third of the difference between the current rate and the 90% average),
- Providing 30% of direct payments for environmental measures (so called „greening”),
- Targeting direct payments to active farmers,
- Capping support for the biggest farms,
- Introduction of simplified direct payment system for small farms,
- Distribution of measures for the support rural areas development (CAP pillar 2) based on objective criteria,
- Including CAP pillar 2 within a common strategic framework and within a partnership contract between the European Commission and the Member States,
- Introduction of flexibility to the Member States in the scope of transfers of funds between CAP pillars,
- Formation of a crisis fund for the agricultural sector outside MFF.

### Work within the EU Agricultural and Fisheries Council

On 12 October 2012, the European Commission presented a package of seven proposals for resolutions for the new CAP, including four major ones concerning direct payments, common organizations of agricultural markets, support of rural development and financing, control and monitoring of CAP (co called horizontal Regulation). Polish Presidency started intensive work on these proposals. At the level of Council Working Groups the so called first technical analysis of the proposal was completed. At the political level, during three consecutive meetings of the EU Agricultural Council in October, November and December 2011 the ministers discussed the directions of reforms, changes in the scope of direct payments and proposals for rural development.

Considering the fact that the Lisbon Treaty increased the role of the European Parliament as concerns CAP decisions, Polish Presidency proposed a cycle of debates over the Commission’s proposals in the form of an open exchange of views of the representatives of the European Parliament, EU Council and the European Commission, with the participation of social organizations and scientific and research institutions. The initiative was well-received on the European forum – the Treaty does not impose the need to cooperate between the three institutions at such an early stage of work.

The Danish Presidency continued the analysis of EC proposals at the technical and political level. First ministerial debates during the Council meetings were devoted to common market organization (January 2012) and CAP simplification (March 2012). Subsequent meetings concerned the direct payment system, including the support for young farmers and small farms, payments for LFAs, capping of support for big farms, redistribution of payments within the Member States and definition of active farmer, as well as greening of the direct payments. Then, the Danish Presidency prepared the amended proposals which shall shape further negotiations.

Polish position towards the Commission proposals

The position of the Polish Government on the legislative proposals of the European Commission was adopted by the Committee for EU matters on 2 April 2012. It was underlined that Poland expected major reform of CAP and introduction of solutions to support the development of European agricultu-

re and rural areas. The Polish government held that a number of European Commission proposals did not meet the expectation and required amendments or modifications. They included such proposed elements as: convergence of direct payment rates and their allocation according to the objectives and tasks of the instrument, simplification of the direct payment system, definition of Pillar 2 allocations for Member States as soon as possible, increase of reference prices and maintenance of sugar and milk quota regimes.

### Danish proposals for changes

In many technical issues the Danish proposals fulfil the Polish expectations, although until the negotiations are open, the provisions cannot be deemed final. The Ministry of Agriculture approved of a modification of a definition of an active farmer, more flexible legislation concerning entitlements (reference period, method of fixing the value of entitlements) or some changes in the system of payments for small farms. Also proposals concerning the greening of direct payments are heading in a favourable direction; in the MARD opinion they make the instrument more flexible and reduce administrative burdens related with the implementation thereof. In the scope of common market organization Poland may accept proposals concerning the abolishment of the obligatory recognition of inter-branch organizations in favour of optional recognition, reinstatement of legislation concerning the classification of carcass and some elements of support to bee-keeping and change of legislation concerning trade. Under the support of rural areas, Poland has assessed positively the proposals concerning programming, expanding the scope of beneficiaries of the measure concerning the improvement of farm competitiveness, or reinstatement of some currently implemented measures.

### Further work

The European Parliament has been working on the CAP reform proposals simultaneously with the EU Council. The aim of both the institutions is to prepare positions which shall become their negotiating mandate in inter-institutional discussions. In July 2012 the positions (reports) of the European Parliament were still being developed – rapporteurs filed draft reports and MEPs filed their amendments. The deadline for adoption by the EP of positions concerning particular CAP legislative proposals depends on the progress in the negotiations of MFF. If a consensus on MFF is reached earlier, then the Agriculture and Rural Development Committee of the European Parliament shall adopt the reports in November or December 2012. This shall enable negotiations between the Council and EP. Only after a compromise is reached by the Council and EP, the European Commission can prepare relevant implementing regulations.

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