



EVALUATION DE L'IMPACT ENVIRONNEMENTAL DE L'ORGANISATION COMMUNE DE MARCHÉ DES CULTURES PERMANENTES

ANNEXE 11 : OCM FRUITS ETUDE NATIONALE POLOGNE

Novembre 2005

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GLOSSARY

AMA	Agricultural Market Agency
ARMA	Agency for Restructuring and Modernisation of Agriculture
APA	Agricultural Property Agency
ARR	The Agricultural Market Agency
CAP	Common Agriculture Policy
ca	Circa (about)
CEFTA	Central European Free Trade Agreement
CMO	Common Market Organisation
CSO	Central Statistical Office
EAGGF	European Agricultural Guidance and Guarantee Fund
EC	European Community
EEC	European Economic Community
ECU	European Currency Unit
EU	European Union
EUR, €	Euro
EUROSTAT	Statistical Office of the European Communities
GDP	Gross domestic product
ha	Hectare
IACS	Integrated administration and control system
k	Kilo (1000 times)
kg	Kilogram
KZRKiOR	Agricultural Circles and Organisations
LFA, LFAs	Less favoured areas
LU	Livestock unit
NGO	Non-governmental organisation
RDP	Rural Development Plan
SAPARD	Special Action for Pre-accession Measures for Agriculture and Rural Development
SOP	Sectoral Operational Programme
SPA	Special protection areas
t	ton (1000 kg)
UAA	Utilised agricultural area
UK	United Kingdom

1. – STATE OF THE AGRICULTURE AND AGRICULTURAL ENVIRONMENT IN THE COUNTRY

1.1 Brief description of the agriculture in the country

The territory of Poland covers 312,685 square kilometres and the population is 38.23 M inhabitants, which constitutes 10.4% of the current population of the European Union. In Poland, areas situated outside town administrative boundaries are considered rural areas.

Rural areas, which shape the landscape of contemporary Poland, account for 93.4% of the territory. Agricultural land constitutes 54 % of the territory and forests 28.5%. Permanent grasslands constitute 11.4 % of the area of the country (meadows. 8.1%, pastures. 3.3 %), which amounts to 21.1 % of the area occupied by agricultural lands.

Poland is a country dominated by lowlands. Over 96% of the territory is situated below 350 m above sea level and only 2.9% lies above 500 m a. s. l. Poland lies in a zone where the influences of the continental European (relatively dry summers and cold winters) and temperate climates compete with the influence of the Atlantic climate, which causes unstable conditions for agricultural production. The average annual temperature oscillates between 6.0°C and 8.8°C; the average annual rainfall is 500-600 mm in the lowlands and 1200-1500 mm in the uplands and the mountains.

Poland is a country with average agricultural land resources. In 2003, Utilised Agricultural Area (UAA) was 16.2 million ha, i.e. it accounted for 51.7% of the total Poland's area. Between 1990 and 2003 the acreage of UAA systematically diminished, mainly due to land allocation for housing purposes. The area used for feeding purposes as expressed in UAA per capita is high compared to the EU average and is equal to 0.42 ha. As regards the UAA acreage, Poland is ranked as the 4th in the EU following France (27.9 million ha of UAA), Spain (26.6 million ha of UAA) and Germany (17 million ha).

Table 1. : Land use in Poland (in thousand hectares)

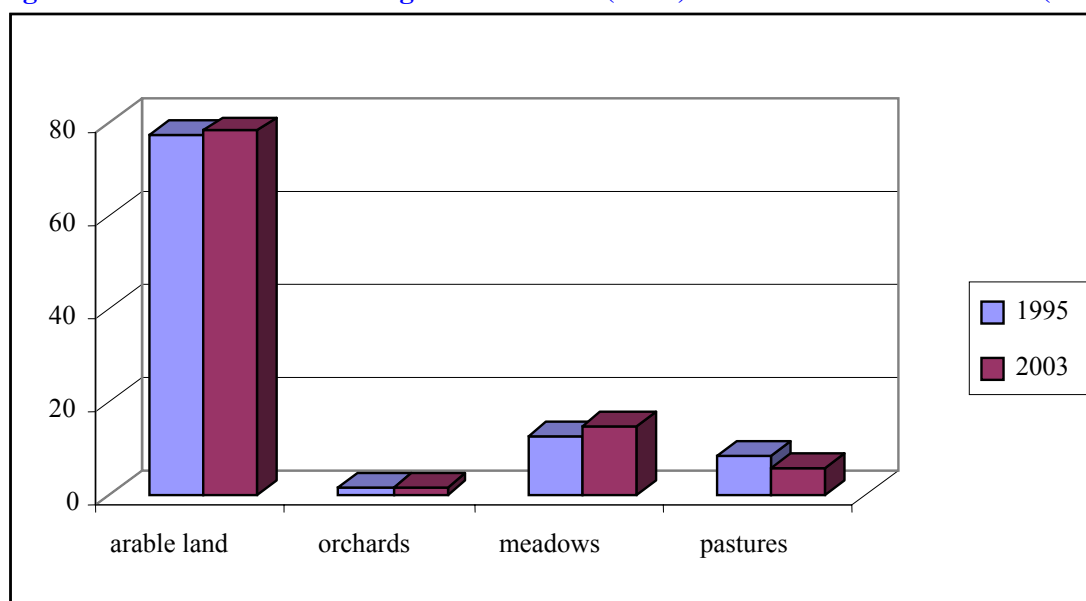
Years	Total area	Agricultural land					Forests and wooded land	Other area
		total	arable land	orchards	mea- dows	Pastures		
In thousand hectares								
1995	31268,5	17934,3	13885,8	278,6	2272,2	1497,7	8821,8	4512,4
2000	31268,5	17812,3	13683,5	256,7	2502,8	1369,3	9003,9	4452,3
2001	31268,5	17787,8	13666,0	258,1	2492,2	1371,5	9027,8	4452,9
2002	31268,5	16899,3	13066,5	271,0	2531,3	1030,5	9089,5	5279,7
2003	31268,5	16169,4	12650,5	250,4	2340,8	927,7	9100,5	5998,6
2004	31268,5	16327,4	12684,6	277,6	2390,0	975,1	9126,7	5814,4

Source: Data of the Agricultural Census as of 20 V.

The quality of UAA in Poland is rather poor as evidenced by a relatively low soil quality index of 0.82 on average. Very good and good soils constitute only 11.5% and poor and very poor quality soils – more than 34%. Grassland is characterised by soils of particularly low quality, where land of very good and good quality (quality class 1 and 2) constitutes just 1.5%, whereas that of very poor and poor quality (quality class 5 and 6) – over 42%. Beside low quality soils, the climatic conditions in Poland are worse than those in western European countries due to which Polish agriculture, in terms of agricultural area valorisation, occupies one of the last places in Europe. At present farmland is utilised by numerous entities varying with regard to ownership, farm size as

well as type and scale of production. Almost 95% of agricultural land is used by the private sector, of which 87% by private agricultural holdings (family farms). Public sector, owning 5% of agricultural land, comprises State Treasury farms and state legal persons, self-governments (gminas) and agricultural holdings of mixed ownership with a dominating state-owned stake.

Figure 1.: Structure of utilised agricultural area (UAA) in Poland in 1995 and 2003 (in %)



Source: the CSO

Table 2. : Structure of utilised agricultural area (UAA) in Poland in 1995 and 2003 (in %)

UAA	Year	
	1995	2003
arable land	77,4	78,2
orchards	1,6	1,5
meadows	12,7	14,5
pastures	8,3	5,8

Source: the CSO

Cereal production takes place primarily in the northern, north-eastern and northwestern regions of Poland. Provinces from the central and south-eastern belt are engaged in potato growing. Oil plants are cultivated mainly in north-eastern Poland, while industrial crops such as tobacco are found in the southern belt. Due to its favourable soil, climate and economic conditions, Poland is currently the largest producer of potatoes and one of the four largest rape producers on the European market. At the same time, the sugar beet accounts for a significant share of traditional Polish agricultural crops. The south-eastern and north-eastern regions of Poland are the main areas where this plant is cultivated. Due to soil and climate conditions, fruit and vegetable production is located primarily in the central and south-eastern belts.

In 2002 over 3.0 M tons of fruit and about 3.9 M tons of vegetables were harvested. In 2002, fruit production was carried out by over 300,000 holdings and vegetables were grown by over 600,000 holdings and covered vegetables about 40,000 of holdings. However, only between 15 and 20% of farmers (between 350,000 and 400,000) produced for the market. The remaining farmers grew fruit and vegetables for their own consumption. Fruit and vegetable processing is extremely dispersed. This sector currently includes between 1400 and 1500 processing plants. About 90% of the processing plants are small and employ between 1 and 50 people. The proportion of large processing companies is about 5% of the total number of processing plants. The share of newly established small companies is estimated between 80 and 90%. In 2000 about 60% (2 M tones) of fruit and about 11% (830,000 tones) of total vegetable production was processed. The majority of

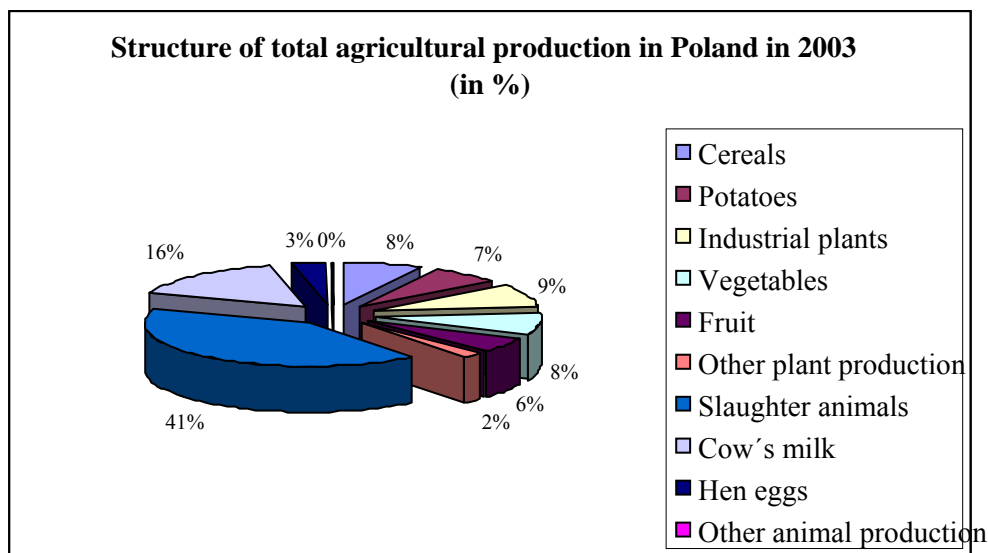
processing plants face problems, such as the lack of a stable raw materials base, crop dispersion, and the heterogeneity of raw materials.

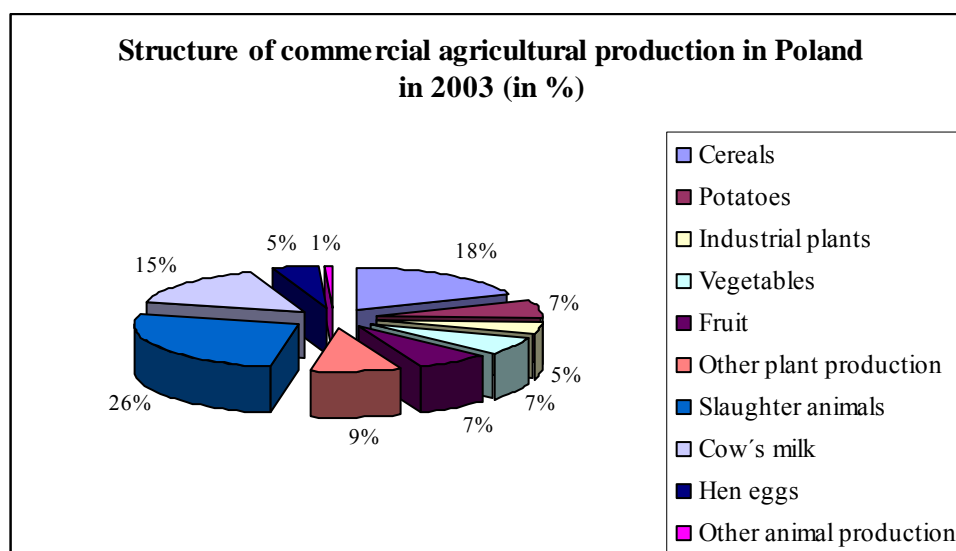
The wide distribution of production is accompanied by poor technical equipment on holdings; many lack the cold rooms needed to preserve product quality and to ensure continuity of supplies. Currently about 200 producer groups registered in this sector are able to comply with the producer groups requirements of the Council Regulation² (EC) No 2200/99. However, an increase in the number of producer groups and their commodity production has been noted. Recently, supply has exceeded demand on the domestic market for processed fruit (mainly juice and traditional processed products) and continues to grow. Competition among the producers leads to concentration in the sector. As far as the production of drinking juices and soft drinks is concerned, nine companies supply over 80% of the market, and four companies supply 60% of the market with solid products.

There has been a reduction in the rate of decline in the consumption of processed cereal products. Over the period 2001/2002 consumption amounted to 21.8% of domestic cereal utilisation and 3.7% of cereals were used by industry. For some years industrial processing has been rising. In 2001, as compared with the previous year, large and medium companies have increased the production of wheat flour (by 0.7%), rye flour (by 1.3%), and pasta (by 6.4%), and have decreased production of groats (by 13%) and fresh bakery products (by 4.7%).

The industrialisation process of cereal milling is slowly developing. The restructuring of businesses has led towards an increase in labour productivity, which in early 2001 exceeded that of the previous year by at least 5-10%. Investment in the milling industry is rising and, simultaneously, there is a drop in the investment rate in the secondary cereal processing sector, which has already modernised its production potential.

Figure 2.: Structure of total and commercial agricultural production in Poland in 2003 (in %)





Source: the CSO

Table 3. : Structure of total and commercial agricultural production in Poland in 2003 (in %)

	Total production	Commercial production
Cereals	7,8	18,4
Potatoes	6,8	7
Industrial plants	9,1	4,5
Vegetables	7,7	6,7
Fruit	6,1	7,4
Other plant production	1,9	8,8
Slaughter animals	41	26,4
Cow's milk	16,1	15,4
Hen eggs	3,1	4,5
Other animal production	0,4	0,9

Source: the CSO

In 2003, milk production in Poland amounted to 11,450 billion litres, of which 8,589 billion litres were produced for the market (of which the share of the Extra class amounted to 80%). Over 874,000 farms keep dairy cows, of which almost 50% produce milk exclusively for their own needs, only selling seasonal surpluses to neighbours or on local markets. Over 93% of farms engaging in milk production have herds numbering up to 9 cows. Such farms account for over 64% of the milk cow stock in Poland. Only less than 6.4% of farms have herds numbering 10 or more milk cows, of which 0.1% of farms have large herds, numbering more than 50 milk cows. About 35% of the cow stock in Poland belong to herds of 10 or more cows. An average cow herd in Poland numbers around three cows and is almost ten times smaller than in the EU-15. A downward trend has been observed with regard to the dairy cow stock. This is caused, inter alia, by changes in farm structure, the fact that small farms owning from one to three cows cease to engage in the production of milk as well as the introduction of stricter quality requirements that must be met by milk producers. It should be noted, however, that the decrease in livestock is accompanied by an improvement in the genetic quality of dairy cattle and an increase in average milk yield. Despite the decrease in the numbers of livestock, the volume of milk production in Poland remains steady and ensures that the country is self-sufficient with regard to milk and dairy products while the foreign trade balance remains positive.

According to the data published by the Central Statistical Office, the average milk yield in 2002 was 3902 kg per cow (2003 : 3940 kg per cow) and the data yielded by the assessment of cow performance conducted indicate higher an average milk yield of 5712 kg milk per cow. This is a level approaching the average milk yield in EU-15 countries. It is estimated that the total milk

production in Poland in 2003 was around 11,460 million litres (in 2004 will be around 11,840 million litres), out of which around 7,295 million litres was processed further (in 2004 about 7,660 million litres will be processed further).

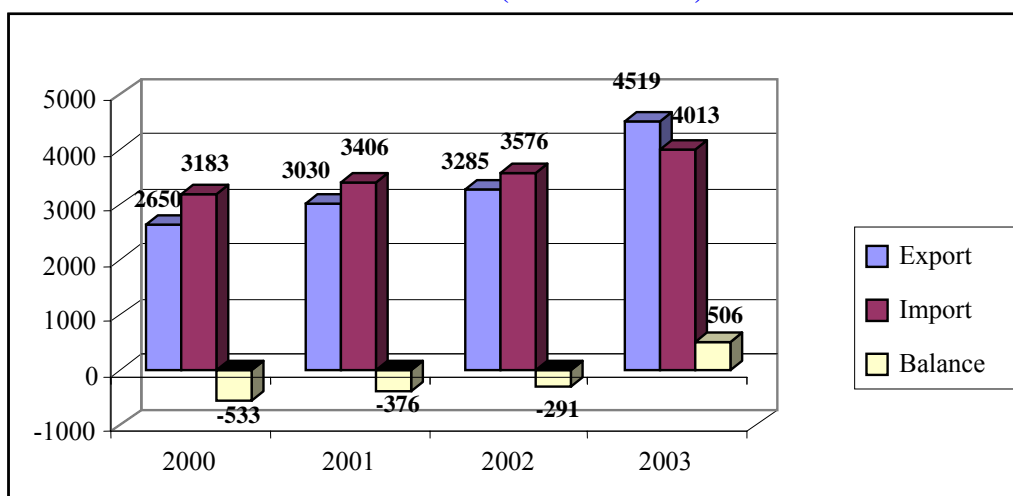
There are currently 358 dairy processing plants active in the Polish milk processing sector. More than a half of them (204) meet EU sanitary and veterinary requirements 154 have been granted transition periods in order to adjust to EU sanitary and veterinary standards until the end of 2006. The products of the Polish dairy industry are sold both domestically and worldwide. The export of dairy products (in milk equivalent) in 2002 amounted to 1296 million litres. In 2002 year, the domestic dairy industry employed around 50,000 persons.

In 2003 pig and cattle production amounted to 2,601,000 tons and 523,000 tons, respectively. Almost 900,000 farms in Poland keep cattle however, only 67% of them produce for the market. In the case of pigs, over 75% of farms produce for the market. Almost 800,000 of farms keep pigs and 75% produce for market. The production and processing of red meat is one of the largest sectors of the national economy. The purchase of meat accounts for about 10% of the total expenses of the entire population (around 30% of food expenses). The production of pork and beef accounts for 33% of the marketable agricultural production and the sector provides jobs for over 100 thousand persons in industry and crafts and for around 1 million persons in agriculture. Annually, the meat industry slaughters around 52% of the total number of slaughter animals (1,020,000 tons). This means that as many as 48% of those animals (960,000 tons) are slaughtered outside industrial establishments. At the present time, the meat sector is very varied and dispersed due to private investments and the privatisation of state plants; the levels of production concentration and specialisation are low. A typical feature of the Polish meat industry is the low degree of utilisation of production capacities, which usually does not exceed 62%. The technological level of establishments varies widely. Some processing industry leaders represent high standards in this respect. The standards of slaughterhouses and meat cutting plants with regard to their technological infrastructure are lower.

According to the data of the General Veterinary Inspectorate, there are currently 3157 plants in Poland that engage in the slaughter, processing and cutting of red meat, of which 1647 establishments are slaughterhouses. 377 establishments represent the highest standard, confirmed by European Union export authorisation. The group of plants that have been granted transition periods until the end of December 2007 numbers 413 firms. The production sold by plants employing over 9 persons in 2002 was around PLN 18.8 million and the average total employment in those plants was 84,267 persons.

2003 saw for the first time in 10 years a surplus in foreign trade in agri-food products. The positive trade balance was observed in the case of all Poland's major trading partners thanks to a much more rapid growth in Polish exports than imports. The value of exports grew by 37.6% and that of imports by 12.2%. In consequence the trade balance was positive, amounting to USD 506 million. Against Poland's total foreign trade, in which a significant growth was observed, agri-food products obtained better results. In 2003 the total export was valued at USD 53.6 billion (an increase by almost one third compared to 2002), import at USD 68.0 billion (an increase by nearly one fourth) and the negative trade balance was equal to USD 14.4 billion against USD 14.1 billion in 2002.

Figure 3. : Results of foreign trade in agri-food products against total products in Poland in 2000 – 2003 (in million USD)



Source: the CSO

Table 4. : Results of foreign trade in agri-food products against total products in Poland in 2000 – 2003 (in million USD)

	2000	2001	2002	2003
Export	2650	3030	3285	4519
Import	3183	3406	3576	4013
Balance	-533	-376	-291	506

Source: the CSO

Among the European Union member states, Poland's major trading partner as regards agri-food products is Germany. In 2003 this country had a 38% share in Poland's agri-food trade with the EU as compared to 36% in 2002. As in the previous years, the second largest trading partner from the EU was the Netherlands with a share of 15%, then Italy – 9%, Spain – 8% and France – 7%. With the total positive trade balance with the EU, the negative trade balance was noted for Spain, the Netherlands, Greece, France, Belgium, Denmark, Ireland and Italy. As for other EU member states, the trade balance was positive, in particular with Germany and the UK.

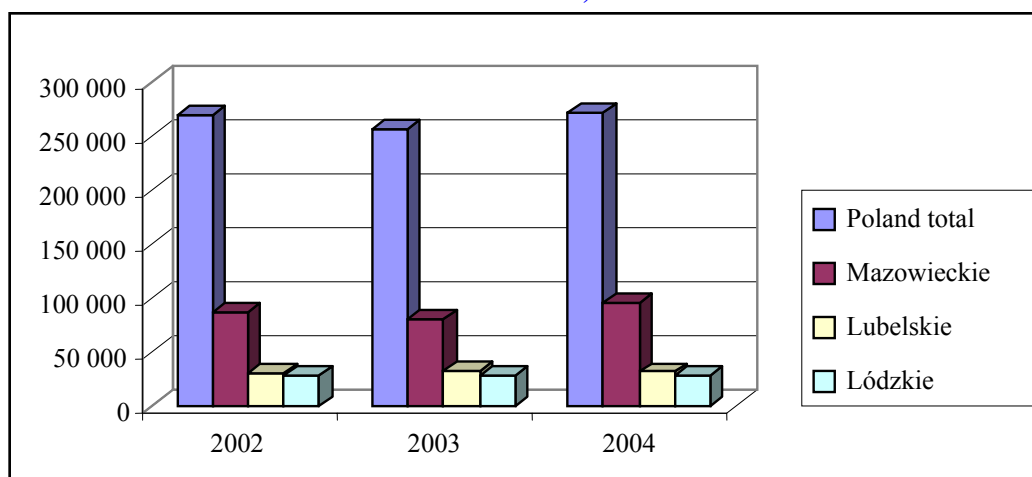
In 2003 trade in agri-food products showed favourable tendencies not only with the EU-15 but also new EU member states. Improvement in trade balance with EU member states indicates a positive impact of liberalisation of mutual trade in agri-food products and acceleration of Polish exporters' adaptation to new conditions existing after the entry into force of the relevant agreement and its subsequent amendments as well as to trade within the Common Market.

Similarly, trade agreements concluded with CEFTA member states, some of which joined the EU together with Poland, resulted in an increase in trade and a positive trade balance for Poland. As in the previous years, in 2003 Poland's major trading partner among the former Soviet Union states was Russia with a nearly 40% share in trade with these countries. Poland's exports dominate over imports to Russia and all former Soviet Union states. Overall, exports to these countries were eightfold greater than imports. The second largest partner is Ukraine (40% share), the third Lithuania (18.2% share).

As regards tree fruit production, apples dominate, accounting on average for over 84% of the total fruit harvest. A vital part of both Polish tree fruit and berries is exported as fresh and processed fruit. In 2003 fresh fruit exports amounted to nearly 460 000 t worth USD 150.9 million. Against 2002, sales increased in terms of quantity and value by ca 31 200 t and USD 43 million respectively. A rise was also noted in exports of processed fruit. In 2003 they were valued at more

than USD 631 million (a 33% increase) and the sales volume was equal to 557 000 t (a 1% increase). Nearly 18% of fresh fruit exports and 82% of processed fruit exports went to the EU.

Figure 4. : Development of total area of fruit orchards in Poland in years 2002 – 2004 (in hectares)



Source: the CSO

Table 5. : Development of total area of fruit orchards in Poland in years 2002 – 2004 (in hectares)

Area	Year		
	2002	2003	2004
	Area in ha	Area in ha	Area in ha
Poland total	270 120	256 632	273 428
Of which the most productive areas:			
Mazowieckie	85 746	79 373	96 199
Lubelskie	30 145	31 759	30 771
Łódzkie	26 773	27 172	27 623

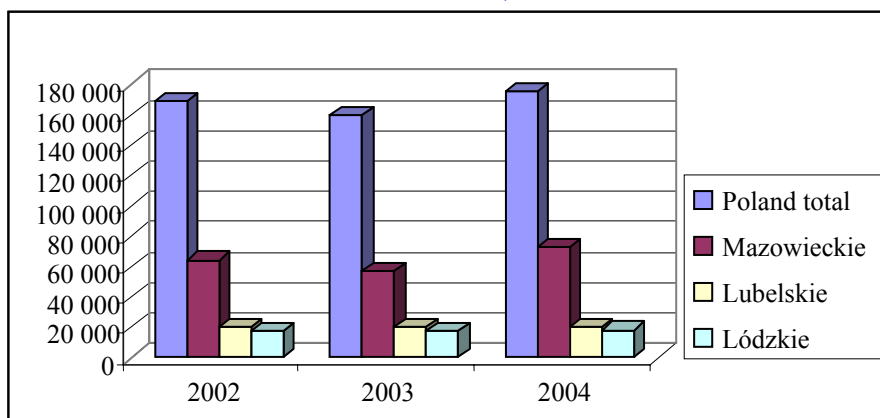
Source: the CSO

Table 6. : Development of total production of fruits in Poland in years 2002 – 2004 (in tonnes)

Area	Year		
	2002	2003	2004
	Production in t	Production in t	Production in t
Poland total	26 035 097	28 754 766	30 189 906
Of which the most productive areas:			
Mazowieckie	10 550 831	11 781 971	12 269 977
Lubelskie	2 571 377	3 404 924	3 828 392
Łódzkie	3 368 489	3 841 309	3 746 152

Source: the CSO

Figure 5. : Development of total area of apple orchards in Poland in years 2002 – 2004 (in hectares)



Source: the CSO

Table 7. : Development of total area of apple orchards in Poland in years 2002 – 2004 (in hectares)

Area	Year		
	2002	2003	2004
	Area in ha	Area in ha	Area in ha
Poland total	168 456	159 279	175 206
Of which the most productive areas:			
Mazowieckie	64 339	57 298	72 980
Lubelskie	19 921	20 640	20 589
Łódzkie	17 113	17 892	18 265

Source: the CSO

Table 8. : Development of total production of apples in Poland in years 2002 – 2004 (in tonnes)

Area	Year		
	2002	2003	2004
	Production in t	Production in t	Production in t
Poland total	2 167 518,50	2 427 752,80	2 521 514,00
Of which the most productive areas:			
Mazowieckie	947 598,40	1 050 355,70	1 090 502,90
Lubelskie	209 040,40	293 988,10	330 726,90
Łódzkie	2 881 435	3 229 973	3 099 285

Source: the CSO

There is 110 000 hectares of productive apple orchards in Poland. Total area of orchards is 175 000 ha. Every year some orchards are renewed but the total area of orchards is not increasing. Total production of apples reaches 25 million tons. 12 million tonnes of apples are processed and remaining quantity is consumed fresh. Export of apples has been increasing recently. Bellorussia, Russia and EU countries are the main importers of Polish apples. Total export of apples amounts to 440 thousand tons in 2004.

The biggest concentration of apples is observed in Mazowietsky wojwodship where the majority of productive apple orchards are located. Poland is characterized by the presence of a great number of small orchards which area does not exceed 1 ha. As a result there is a multiple of produced varieties of apples in Poland. Currently the number of varieties of apples produced in Poland is above 80. The most important varieties are Idared, Jonagold, Kortland, Lobo, Champion. The Ministry of Agriculture and Rural Development is responsible for the implementation of government policy in the field of agriculture, rural development and agricultural markets.

The Department Of The Common Organisation Of Agricultural Markets carries out the activities vested in the Minister relating to the preparation for functioning and the functioning of Poland in the framework of the Common Organisation of Agricultural Markets and in particular relating to field crops, horticultural products, animal products and processed products and the agricultural statistics. Besides, the Department carries out the tasks related to analyses and the reform of the CAP, restructuring of agri-food processing and food aid.

Agricultural Market Agency (AMA)

As from the date of accession AMA has been playing the role of a paying agency for some of measures complying with EU legislation on the organisation of particular agricultural markets. In the framework of CAP mechanisms AMA will be responsible for taking measures on the following markets: cereals, meat, milk and milk products, sugar, starch, dried fodder, flax and hemp for fibres, raw tobacco, wine, fruit and vegetables, olive oil and silkworms with regard to:

- intervention purchases, storage and sales of cereals, meat, milk products and sugar
- private storage aid for meat and meat products
- aid to dried fodder production
- production premiums for potato starch producers
- aid to processing of flax and hemp straw
- aid for silkworm producers
- aid for processors utilising starch and sugar for uses other than human consumption, for olive oil used in processing and aid for the use of grape must to produce juice and other foodstuffs and to increase alcohol concentration in winery products, aid for processing and consumption of milk products
- payments to producers of raw tobacco and potatoes for starch production
- support for bee-keeping
- organisation of tenders for utilisation of fruit and vegetables not intended for marketing,
- administration of quotas of milk production, potato starch and raw tobacco.

The Agricultural Market Agency is comprised of 16 Regional Branches. The activity of a Regional Branch is governed by the Director thereof. Directors of regional branches are appointed or dismissed by the President of the Agency. The Director of a Regional Branch is responsible for carrying out duties outlined in the Statue of the Agency, duties allocated by powers of attorney granted by the President of the Agency, and duties imposed by separate provisions. The organisational structure of a Regional Branch is imposed by the Organisational Regulations thereof, adopted by the President of the Agency.

Agency for Restructuring and Modernisation of Agriculture (ARMA)

The Agency for Restructuring and Modernisation of Agriculture has been chosen by the Government of the Republic of Poland as the paying agency for most instruments of the Common Agricultural Policy financed by the EAGGF Guarantee Section, and as the implementing authority for aid schemes financed from the Structural Funds of the European Union.

The ARMA Agency has been supporting Polish farmers and rural areas inhabitants for 10 years now, mainly through subsidies to interest on banking working capital and investment credits as well as co-financing rural infrastructure, measures aimed at training and education of the youth and adults. The Agency for Restructuring and Modernisation of Agriculture has become the second, beside AMA, paying agency. ARMA is responsible for direct payments, accompanying measures and other instruments implemented under the CAP, financed from the EAGGF. Previously ARMA took measures related to payment of EU funds by implementing the SAPARD Programme to be finalised by end-2006 (disbursement of payments).

Following accession, ARMA has been performing the following main functions:

- of a paying agency
- of the Implementing Authority and final beneficiary for SOP and RADP
- of an institution implementing national aid schemes

Agricultural Property Agency (APA)

Pursuing its activities from 1992 to 15 July as the Agricultural Property Agency of the State Treasury, APA is a state legal entity entrusted with the exercise of the ownership right and other rights in property with regard to state-owned agricultural real estate. APA carries out tasks of setting up family farms, improving agrarian structure, creating conditions for a regional use of APA Resource production potential, restructuring and privatising State Treasury property utilised for agricultural purposes, trading in property and other State Treasury assets used for agricultural purposes, securing the State Treasury and supporting the establishment of private farms on State Treasury land. APA operates on the self-financing basis. The main sources of its income are revenues from property sales and leases. In the initial years of APA's operation, a significant part of such revenues was allocated for the repayment of commitments taken over worth almost PLN 2 billion. At present, a large part of funds from the APA Resource privatisation is channelled to the national budget, Labour Fund and Agricultural Market Agency.

Agricultural Chambers

Re-established on the basis of the Law of 1995 (with subsequent amendments), agricultural chambers have an over one hundred years' tradition in Poland. It is a form of common agricultural self-government with a legal status. Members are obligatorily all agricultural tax payers and payers of income tax on specific sectors of agricultural production as well as members of agricultural cooperatives that contribute land to such cooperatives. Statutory bodies of agricultural chambers are elected in a democratic election, and the supreme body, e.g. the General Assembly - in a general election among farmers. Currently, there are 16 voivodship agricultural chambers in Poland. Their activities are aimed at ensuring effectiveness of agricultural production and increasing rural inhabitants' incomes and improving living standards of the rural population.

Agricultural Circles

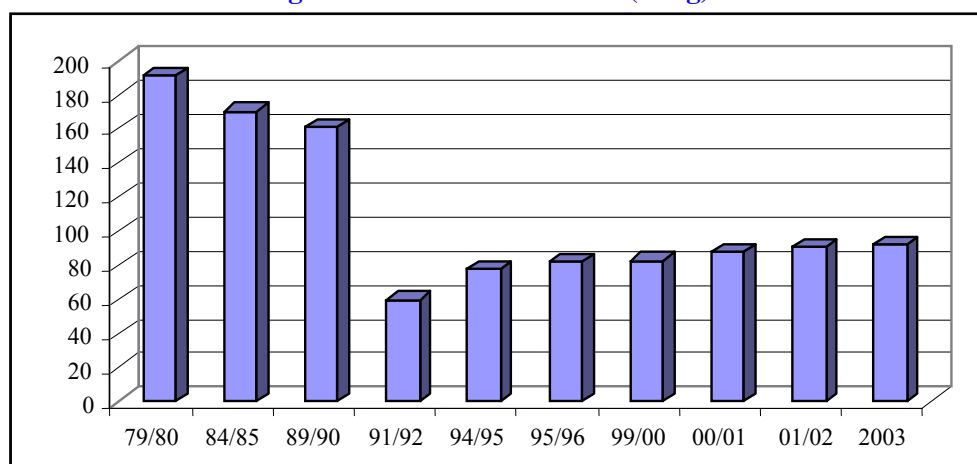
The National Union of Farmers, Agricultural Circles and Organisations (KZRKiOR) is a professional union of private farmers and the national, selfgoverning association of Agricultural Circles and Rural Housewives' Circles (KGW), local farmers' unions, agricultural circles and organisations, cooperatives of agricultural circles and other agricultural organisations associated on a voluntary basis. Agricultural circles bring together approximately 1.2 million members and KGW – 850 000 members associated in 25 000 KGWs. As a social and professional farmers' organisation, agricultural circles have a 142-year old tradition and Rural Housewives' Circles – a 135-year old tradition. Agricultural circles pursue their activities based on three laws: the Law of 8 October 1982 on farmers' socio-economic organisations, the Law of 7 April 1989 on farmers' trade unions and the Cooperative Law of 16 September 1982. There are 49 KZRKiOR regional offices operating all across the country.

1.2 Brief description of the environment in agriculture

The intensive exploitation of natural resources taking place in many European countries is not taking place in Poland because the critical environmental equilibrium point in agriculture has not been reached here. The model utilised here is still one of labour-intensive production intensification, which results from the current labour force balance in agriculture. "The Polish model of agricultural development combines a moderate increase in the capital intensity of production with relatively high labour intensity. It is an optimum structure of factors ensuring agricultural production growth without degrading the natural environment and with a relatively environmentally friendly production potential.

One example here may be mineral fertilisation, which has significantly decreased after the year 1989/90. The lowest level (62.1 kg of NPK) was reached in the year 1991/92. Later, a moderate increase was observed (to 93.2 kg in the year 2001/2002)" (RDP page 34).

Figure 6. : Utilisation of organic and mineral fertilisers in pure ingredient of NPK per 1 ha of agricultural land in Poland (in kg)



Source: the CSO

Table 9. : Utilisation of organic and mineral fertilisers in pure ingredient of NPK per 1 ha of agricultural land in Poland (in kg)

Years	79/80	84/85	89/90	91/92	94/95	95/96	99/00	00/01	01/02	2003
kg of NPK	191	170	161	62,1	78	82	83	88	93	94

Source: the CSO

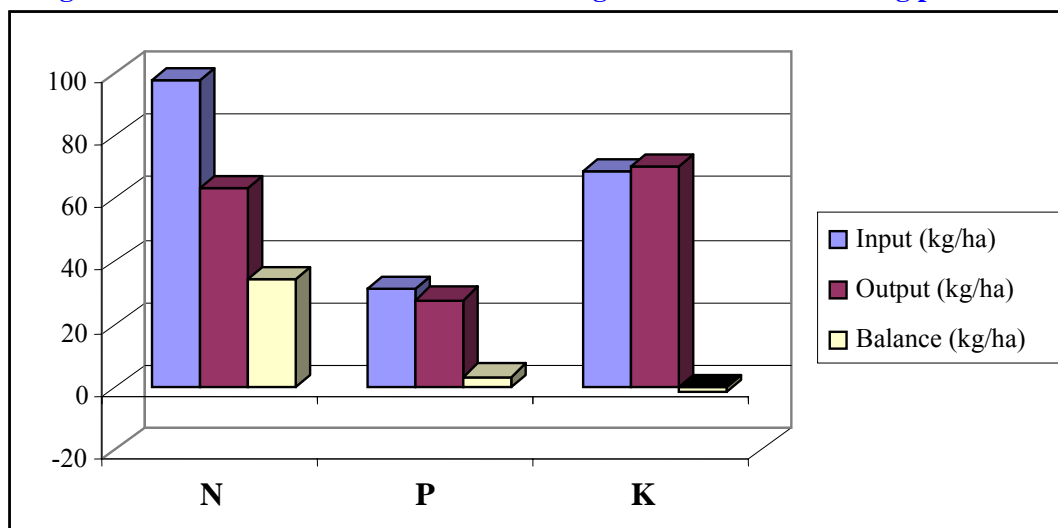
The situation with regard to the utilisation of chemical plant protection substances is similar. In the years 1990-2000, it amounted on average to 0.54 kg of biologically active ingredient per 1 ha of agricultural land and orchards, annually.

Table 10. : Use of mineral, chemical and lime fertilizers per 1 ha of agricultural land (in terms of pure ingredient in kg) in Poland

	1995/96	2000/01	2001/02	2002/03	2003/04
NPK	84,5	90,8	93,2	93,6	99,3
Nitrogenous fertilizers (N)	47,6	50,3	51,0	51,5	54,8
Phosphatic fertilizers (P ₂ O ₅)	16,9	17,9	18,9	18,7	19,7
Potassic fertilizers (K ₂ O)	20,0	22,6	23,3	23,4	24,8
Lime fertilizers (CaO)	124,4	94,2	94,1	94,6	93,5

Source: the CSO

Figure 7. : NPK-Balance for Poland as averages for 1999 to 2001 in kg per hectare



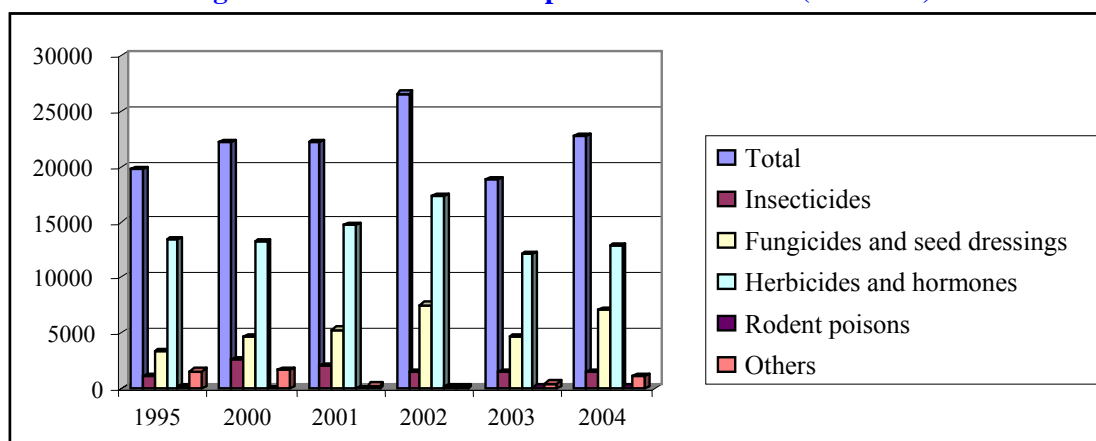
Source: CSO

Table 11. : NPK-Balance for Poland as averages for 1999 to 2001 in kg per hectare

	Input (kg/ha)	Output (kg/ha)	Balance (kg/ha)
N	97,6	63,4	34,2
P	30,9	27,8	3,2
K	68,7	70,3	-1,6

Source: CSO

Figure 8. : The utilisation of pesticides in Poland (in tonnes)



Source: the CSO

Table 12. : The utilisation of pesticides in Poland (in tonnes)

	1995	2000	2001	2002	2003	2004
Total	19687	22164	22213	26578	18756	22687
Insecticides	1154	2533	1976	1439	1470	1542
Fungicides and seed dressings	3350	4686	5285	7525	4633	7038
Herbicides and hormones	13476	13233	14662	17266	12113	12868
Rodent poisons	139	53	33	109	80	99
Others	1568	1659	257	239	460	1140

Source: the CSO

If we take European standards into account, the current level of mineral fertilisation and the utilisation of chemical plant protection substances in Poland must be assessed as moderate. It will not have a detrimental impact on the quality of agricultural land and agricultural products. From this point of view, production is environmentally safe.

The first hydraulic projects for agricultural purposes were undertaken in Poland during the Middle Ages. Embankments were built to protect lowland areas against flooding and ditches were constructed to drain water from swampy areas. But the largest area was drained after the 1945. Annually, over 200 thousand hectares of agricultural land were drained for some years. Nowadays reclamation of new land has practically stopped. No more than 10 000 hectares of arable land is drained annually at present. Drainage in river valleys has ceased. Most of the reclamation projects undertaken are associated with the reconstruction of irrigation systems, construction of water reservoirs or weirs to increase the water level in some rivers.

Nevertheless, it is worth noting that a substantial area of agricultural land in Poland is fitted with hydraulic structures, mainly for soil dewatering. The type and number of land reclamation (land improvement) structures is shown in Table 12.

Table 13. : Land reclamation (land improvement) structures in Poland (in thousand hectares, km)

Land reclamation area and structures	Units	Amount
Area ameliorated	Thousand hectares	6 690
• arable land	Thousand hectares	4 725
• grassland	Thousand hectares	1 965
Area irrigated	Thousand hectares	480
• arable land	Thousand hectares	62
• grassland	Thousand hectares	418
Hydraulic structures managed by farmers		
• ditches and small watercourses	Km	283 746
• pipes (without sprinkler irrigation)	Km	8 211
Hydraulic structures managed by the State		
• regulated rivers and canals	Km	49 588
• unregulated rivers	Km	24 796
• levees (embankments)	Km	8 371
• pumping stations	number/m ³ . s	592/170
• water reservoirs	number/mln.m ³	185/170

Source: the CSO

As may be seen from Table 6 most of the agricultural land is drained without possibility to irrigate. Covered plastic or ceramic drains have been installed for dewatering arable soils. Irrigation systems were installed primarily in orchards and vegetable gardens. Grasslands, mainly those found in river valleys, have been drained by open ditches. About 25% of the drained grassland may be irrigated. The subirrigation system is the only method used for irrigating grasslands. Agriculture development plans foresee that some 2 mln hectares of farmland will be taken out from agricultural production. This applies mainly to poor soils or river valleys of high nature value. It is estimated that some 10% of irrigation-drainage systems will be dismantled. Consequently, no larger irrigation or drainage projects are planned for construction in the coming years. Irrigation is carried out in smaller areas, mainly in orchards and in vegetable gardens. At the same time action is being taken to renaturalize a part of the drained river valleys and introduce solutions designed to increase retention capacity, some of it targeted on water conservation.

Agricultural areas in Poland are not entirely free from threats, however. Many unfavourable phenomena have been observed, most of which are the results of mistakes from the past. These include:

- the agricultural utilisation of poor soils and soils susceptible to erosion;
- imprudent water management within agricultural catchments;
- insufficient education with regard to rational agricultural practices;
- neglect with respect to equipping agricultural holdings with environmental protection infrastructure;
- point-source heavy metal pollution of the soil.

New threats have recently appeared related to the resting of lowest-quality agricultural land and the failure to adhere to good agricultural production practices (e.g. simplified crop rotation, not using stable manure to fertilise the soil). Thus wildlife refuges on agricultural lands may be threatened by:

- changes in the traditional system of plant cultivation and animal breeding, resulting from intensified agricultural production;
- failure to cultivate grasslands, leading to the resting and overgrowth of land, which in turn causes rare populations of birds and plants to disappear;
- delay in the utilisation of environmentally friendly agricultural production technologies.

Average residue of heavy metals in surface soil (0-20 cm) is low. Soil contamination occurs only locally. Main source of soil contamination with heavy metals and other toxic components is the industry and urbanised areas. Soil is contaminated mainly by zinc, lead and cadmium. In the year 1999 natural (0) and elevated (I) level, which do not exclude land from full agricultural use, are characteristic of 97% of farmland. High (IV) and very high (V) contamination levels, which exclude land from agricultural production, were registered in 0,3% of farmland concentrated in large industrial areas in Śląsk region and around Legnica.

The most important factor contributing to the degradation of soil in Poland is excessive acidification, which is primarily of natural origin (caused by climate and soil conditions). Improper fertilisation is also conducive to the excessive acidification of soil utilised for agricultural purposes. Acidic and highly acidic soils constitute about 45% of agricultural lands. Excessive soil acidification has a detrimental impact on the crops and reduces the effectiveness of fertilisation, causing some nutrients to be washed out deeper into the soil profile. Excessive acidification blocks the plants access to some nutrients and increases the absorption of some substances, such as certain heavy metals. Liming the soil is the usual way of coping with this problem, because besides reducing acidification, this procedure also improves the physical properties of the soil. The annual demand for calcium fertilisers amounts to around 2.8 M tons of CaO. In recent years the average utilisation of calcium fertilisers (expressed as pure calcium) has significantly decreased (from 182.4 kg/ha in 1989 to 94.1 kg/ha in 2001/2002), which has reduced the effectiveness of counteraction against soil acidification in Poland.

Soil erosion is a result of excessive deforestation in the past and consequently of simplified landscape structure, as well as of soil misuse in areas liable to erosion, such as slopes. Erosion leads to deterioration of farming conditions, makes land barren and cut with ravines. Water erosion is a serious threat in Poland. According to estimates 28.5% of the territory of Poland is threatened by water erosion (11% to an average degree, 3.7% to a high degree). Mountain and upland areas, composed of rocks that exhibit low cohesion, are the most exposed to water erosion (80% are in high degree). Average-degree water erosion usually affects lake district areas.

Wind erosion is a threat to 27.6% of the territory (for 1% the risk is high). The largest areas seriously threatened with wind erosion are situated in the provinces where the share of forests is low, with domination of light and dusty soil, e.g. in Łódź and Mazowsze provinces. According to guidelines of Code of Good Agricultural Practice lands situated on the slopes above 20% should be permanently covered by the vegetation or afforested. Decreasing of field size on slopes and contour field arrangement, terracing or setting up of buffer zones (shrubs, trees, sod) effectively protect against erosion. On the land endeavour by erosion anti-erosion cultivation regime should be applied, including: anti-erosion crop rotation (e.g. intercrops) or so called soil-maintaining cultivation (e.g. slope across ploughing, no-ploughing cultivation). Counteracting erosion is not widely practiced, because agro-technical procedures aimed at preventing erosion and the creation of shields (consisting of trees and bushes) on deforested areas are costly.

1.3 Brief presentation of the CMO system in the country

1.3.1 Description of the historic of implementation of CMO

The common market organisation in fruit and vegetables is in Poland as well as in other Member States regulated by the Council Regulation (EC) 2200/1996 which defines common organization of the market in fruit and vegetable and the forms of support that are applicable for the sector.

Poland is an export oriented country with respect to fruits in general and apples in particular. This was one of the reasons why representatives of the Ministry of Agriculture of Poland were trying to prepare good conditions for the Poland's accession into the EU. Before the accession Ministry of Agriculture was getting ready for individual measures of the CMO in fruits and vegetables. Information about positive effects of merging of producers was transferred to individual producers within an information campaign organized by the Ministry of Agriculture in 1997. The campaign

was co-financed from Phare fund. At every possible contact with producers the Ministry of Agriculture stressed the importance of creation of producer groups.

Since 2000 year Poland has been trying to incorporate certain elements of the Commission Regulation (EEC) 2200/1996 into national legislation. National support was provided mainly through producers organisations. The system was adjusted to take into account national specifics.

The objectives of producers organisations are planning and adjustment of production to demand both in the terms of quantity and quality, support of concentration of inventories and their disposal at the market, reduction of production costs and stabilization of prices, support of environmentally friendly methods of production, storage and disposal of waste, protection of water, soil, support of biodiversity and countryside.

1.3.2 Organisation of the implementation at national and regional level

1.3.2.1 Planning – Programming

Ministry of Agriculture and Regional Development is the Managing Authority responsible for programming and planning in the area of CMO.

The responsible authority - the policy maker of market organisation is the department of the common organisation of agricultural markets which carries out the activities vested in the Minister relating to the preparation for functioning and the functioning of Poland in the framework of the Common Organisation of Agricultural Markets and in particular relating to field crops, horticultural products, animal products and processed products and the agricultural statistics. Besides, the Department carries out the tasks related to analyses and the reform of the CAP, restructuring of agri-food processing and food aid.

1.3.2.2 Implementation and control

There are two Paying Agencies in Poland: Agricultural Market Agency and Agency for Reconstruction and Modernisation of Agriculture. Implementation or executive body in the area of instruments of CMO is Agricultural Market Agency.

The principal task of the Agricultural Market Agency is the implementation of selected schemes under the Common Agricultural Policy (CAP) of the European Union.

Direct appliance of the Common Agricultural Policy in Poland means that intervention programmes are ran in cases defined by European legislation or by decision of the European Commission after analysis of the agricultural markets situation.

The Agricultural Market Agency (ARR):

- Surrenders decisions enabling farmers and food - processors to take part in CAP schemes, which are administrated by ARR,
- Controls the proper distribution of financial resources paid out to beneficiaries of selected CAP schemes,
- Pays out payments to beneficiaries of selected CAP schemes,
- Reports to the European Commission on CAP schemes administrated by ARR,
- Informs participants about decisions made on the EU level in regard to CAP schemes administered by ARR.

The activities of ARR include 20 commodity groups within the frame of which ca. 50 CAP schemes are being administered, amongst others are the following:

- Intervention buy in and sale of agricultural products and foodstuffs,
- Private storage aid,
- Trade mechanisms, including issuing import/export licences and payment of export refunds,
- Production quota systems for selected agricultural products: milk, potato starch, tobacco,

- Aid schemes supporting internal market demand, including processing and purchasing aid for non profit institutions and organisations.

The Agency for Restructuring and Modernisation of Agriculture is the paying agency responsible for most instruments of the Common Agricultural Policy financed by the EAGGF Guarantee Section, and as the implementing authority for aid schemes financed from the Structural Funds of the European Union.

In respect to CMO on fruit and vegetables the ARMA is responsible for the approval of the Operational Programmes of the Producers Organisations. As of July 1 2005, three applications for operational programs were submitted by the producer organisations.

In addition, ARMA has received 18 applications for financial support (according to the Commission Regulation No 1943/2003).

Responsibility for receiving processing and approval of applications for full or partial recognition of the producer organisation has been delegated down to the Provinces. Governor controls requirements for full and partial recognition in accordance with Council Regulation No 2200/96 and Commission Regulation No 1432/2003.

The financial assistance for recognised PO is paid at either:

- 4,1 % of the value of the marketed production of each producer organisation,
 - 50 % of eligible expenditure incurred from the operational fund,
- whichever is the least.

1.3.2.3 Monitoring

Price monitoring is the most important type of monitoring. It is crucial for passing of individual decisions of the European Commission. It concerns in particular decisions on the level of support which is not fixed but dependent on the current market situation (mainly export refunds). Ministry of Agriculture and Rural Development is responsible for price monitoring.

1.3.3 Organisation of the producers

The history of organising of farmers was influenced by the situation in farming before 1989 year. After 1989 organising of farmers and development of rules for organising were developing slowly. This has to deal with the mentality of farmers. There were 80% of private farms, 15 % of state farms and only 5 % of cooperatives in Poland before 1989. Cooperative farming was at that time rejected by farmers as a method of merging of farmers by force. After 1989 and after agricultural reforms organising of farmers became very important, especially for small farms that had and still have less than 7 ha of land. Farmers however rejected organising and there is a psychological aspect of rejection of any form of organising of farmers.

In 1997 Ministry of Agriculture put significant effort into information campaign to persuade farmers about positive effect of organising of producers and about organising and merging of farmers in the EU countries. The initiative was co-financed from the resources of PHARE programme. In 2001 year the first Producers Organisation consisting of more than 1000 members was formed. The formation of the Producers Organisation was influenced by the government subsidy.

Merging of producers into producer organisation in Poland is based on two legislative procedures. The first one is the Law on producer organisations which was passed 15 September 2000. The law provides for merging of all producers of agricultural commodities. The formation of producers groups was supported from national sources. The second legislative procedure is provided for by the law from 1 May 2004 which enables the formation of producers organisations based on EU legislation. Producers organisations that were set up by this legislation are supported from EU

sources. Currently there are 51 producers organisations, of which 10 were based on the first (national) legislative procedure. The remaining 41 producers organisations were formed according to the EU legislation (see the list under Q&A part). Gradually producers organisations established based on national legislation will be transformed into the EU system.

Requirements for the formation of producer organisation according to European legislation (Commission Regulation 1432/2003) incorporated into national legislation include: minimum number of 5 members, turnover at least 100 000 EUR. Producers organisations formed according to national legislation were required to have at least 5 members and turnover at least 50 000 EUR. PROFISAD is one of the biggest producers organisations and it was formed according to national legislation.

Producer organisations that applied for preliminary recognition have to prepare a recognition plan – schedule of activities for a maximum of 5 years. The recognition plan contains goals that assist in completion of recognition from the viewpoint of stability of administrative operations of the producer organisation. The recognition plan is submitted together with the application for preliminary recognition. Producer organisations with preliminary recognition can apply for support, which can be provided for the period of five years.

During the period of preliminary recognition Member States may provide support for the establishing and administrative functioning in the form of direct support (lump sum aid) or in the form of subsidized loans, credits covering part of the investment needed to obtain recognition and for preparation of the recognition plan. 75 % of financing of producer organisations with preliminary recognition comes from the EU while 25 % comes from the Member State.

Each producer organisation is required to create operational fund consisting of financial contributions of its members that are based on the quantity or value of sold products and on financial support. Its goal is to achieve competitiveness and it can be used in two forms: operational programme and withdrawing of production from the market. In this case it is financed 50 % from the EU and 50 % from the producers' organisation. The maximum contribution is 4.1% of the value of marketed production. In Member States with lower organisation of producers there are available national aids in the amount of 50 % of members' contribution. EU can substitute this aid for those Member States that have value of marketed production lower than 15 % of the total value of marketed production and share of fruits and vegetables is higher than 15 % of total agricultural production. Operational fund can be used only for activities related to the implementation of approved operational programme, withdrawal of production from the market and administration of operational fund.

1.4 The level of implementation of the CMO measures

In the area of market organisation in fruits there are the following instruments that can be used:

- export licenses
- export refunds
- recognition of producers' organisations
- support for financing of recognition plans
- support of operational programmes
- support for the producers of tomatoes and peaches
- withdrawal of products from the market

In Poland the following measures of organisation of market with fruits were approved:

Export licenses and export refunds

The system of administering of export licenses and export refunds has precisely set specifics in the adopted regulations. The system is the same for the whole EU and it is not adjusted for the situation in Poland. A rapid rise of applications for export refunds has been registered.

Direct support provided for the activities of preliminary recognized organisations of producers according to Commission regulation number 1943 /2003 article 3:

Based on the annual value of marketed products with the lump sum rate from the value of marketed products in the amount of maximum 1 000 000 EUR:

The first year 5%

The second year 5 %

The third year 4 %

The fourth year 3 %

The fifth year 2 %

From the value of marketed products above 1 000 000 EU:

The first year 2.5%

The second year 2.5 %

The third year 2 %

The fourth year 1.5 %

The fifth year 1.5 %

While the maximum support (sum of both computed values) must not exceed:

100 000 EUR for the first year,

100 000 EUR for the second year,

80 000 EUR for the third year,

60 000 EUR for the fourth year,

50 000 EUR for the fifth year;

Support of investment for preliminary recognized producers organizations:

The basis for this type of support is the approved plan of recognition that also includes the costs of the investment. Individual producer organisations must finance minimum of 25 % of the investment cost. For the support can apply those producer organisations with preliminary recognition at which the paying agency made inspection on site.

Support related to the withdrawal of production from the market

Recognized producer organisations can apply for support if they incur transportation costs related to the withdrawal of production from the market.

Support for sorting and packaging

Recognized producer organisations can apply for support to cover costs of sorting and packaging related to the withdrawal of production from the market. Maximum amount of support is 132 EUR/t. Product must be packed in pack of 25 kg net weight and labelled with EU sign, or “product for free of charge distribution”

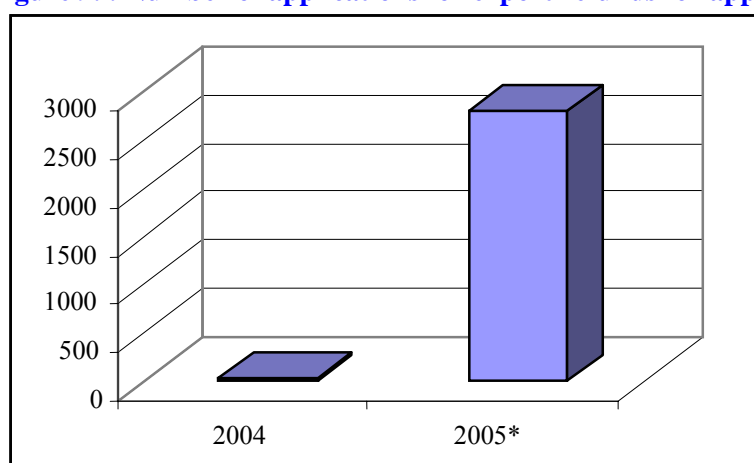
The examples of measures which are being applied by producer organisations in operational programmes:

- implementation of a new information system for management of supplying,
- improvement of placing an order,
- improvement of monitoring and production planning,
- increase of sales in big central buying,
- investments in storage, packaging and transport of fruit and vegetables,
- market research,
- improvement of common rules of production,
- reduction of production costs,
- improvement of efficiency of production processes,
- monitoring and reduction of unit costs,
- search of new markets,
- preparing of marketing plan and marketing strategies,

- development of marketing sections in producer organisation,
- promotion of high quality products among consumers,
- implementation of new varieties of fruit and vegetables,
- promotion of organic / integrated production among consumers,
- advertising campaign and promotional materials,
- information technology in logistic system of supplying,
- implementation of information technology for improvement of logistic management,
- introduction of quality control system – EUROGAP certificate,
- improvement of quality in both stages: production and prepared for sale,
- introduction of a quality equipment,
- laboratory analysis for quality control,
- training programmes related to implementation of quality control,
- development of integrated production,
- laboratories analysing of integrated and organic production,
- training about plants and application of machinery and equipment,
- training programmes related to implementation of actions in the operational programme,
- implementation of a new information system for management of supplying,
- attendance in trade fairs,
- development of integrated production,
- laboratories analysing of residues in fruit and vegetables,
- improvement of the management of waste materials.

The CMO has positive effects in general, but particularly for export. Representatives of Paying Agency registered an increase of interest in export. While in 2004 after EU accession Paying Agency received 32 applications for export refunds, in year 2005 the number of applications for export refunds for apples reached 2 799 by 3 June 2005.

Figure 9. : Number of applications for export refunds for apples



Source: ARMA

* by 3 June 2005

Table 14. : Number of applications for export refunds for apples

	2004	2005*
Number of applications	32	2799

Source: ARMA

* by 3 June 2005

According to Commission Regulation 1943/2003 18 applications for financial support were received.

According to Commission Regulation 1933/2003 3 applications for operational programmes from producer organisations were received.

2. QUESTION ON APPLE PRODUCTION

Question 5 (F1): Concerning apple production in enlargement countries: what are the observed and expected environment related impacts of the market measures of the CMO [e.g. via grubbing up, new varieties, intensification, absence of producer organisations]?

Questions to the authorities and professionals:

Back ground information

- are there statistics on these operations in apple orchards in your country?

Currently there are only basic statistics concerning fruit orchards in Poland (see introductory part). Specialized statistics on grubbing up of orchards, orchard conversion, planting of new varieties or intensification of orchards are not available. It will be necessary to introduce these statistics for the monitoring of programmes of SOP, RDP, CMO.

- o grubbing up of orchards to convert them into other agricultural land,

Poland is considered an apple orchard of Europe. Polish farmers do not convert fruit orchards into other agricultural land. It is due to the tradition of fruit production in Poland and also due to the profitability of apple production and growing interest in export.

- o grubbing up of orchards to convert them into more productive new orchards

Farmers usually replace grubbed up fruit orchards with new orchards. New orchards are in almost all cases more intensive (more dense planting). If farmers face lack of financial resources they keep old orchards reach less productive age and do not invest into grubbing up until they have enough resources for new planting.

Grubbing up of orchards is sometimes influenced by local natural disasters. For example in the beginning of the 60s tough winter destroyed most orchards which were subsequently replaced by more intensive orchards with newer varieties. Similar situation occurred in 1986/87. At that time orchards with 200 – 300 trees per hectare were replaced by orchards with 600 – 700 trees per hectare. Currently intensive orchards have 2 500 trees per hectare.

- o planting of new varieties,

Grubbed up orchards are replace with new ones containing new varieties. This is a trend in all new member states. Producers' decision to plant new variety is based on economic considerations, which amounts to evaluation of resistance of the variety against pests and diseases and marketing of the variety at both domestic and foreign markets.

Not all varieties are suitable for all apple producers, for example variety Champion is too soft and not suitable for export, but it is very tasty. Some varieties are being pushed out of the market because of their low profitability. They still survive in local orchards. This is the case for domestic varieties Zberska or Borkin.

Reliable information is important for producers of apples. In contrast to other farmers apple producers are not hesitant to invest into research and consulting. An important role in this area is played by Institute of orchards in Skernewica which conducts research and consulting concerning also new varieties, their planting, treatment and harvesting. Through the Institute many foreign varieties get into Poland.

- intensification i.e.: increase in inputs like fertilisers and pesticides, increase in density of plantation, irrigation, etc.

Today's modern orchards are very intensive, they have irrigation systems and systems of protection against froze. These orchards are mainly concentrated in well-known region of Grojec. On the other hand there are many small extensive orchards cultivated by small farmers in Poland.

Use of pesticides and agricultural chemicals has significantly decreased over last years. Use of pesticides and agricultural chemicals is significantly lower in Poland than in the old member states. Orchards extensively use an integrated protection. Institute of Plant Protection conducts quality control of fruits and checks the level of residuals. Several random checks were conducted by the Institute at various stages of distribution channel of apples last year but no harmful elements were detected.

- number of producer organisations?

Number of producer groups and producer organisations with the following categories of products - according to the information from Governors (status quo on 6th July 2005):

Producer groups (art. 14 of 2200/96):

- a) 13 - fruit and vegetables,
- b) 12 - products intended for processing,
- c) 3 – fruit,
- d) 4 – vegetables.

Producer organisations (art. 11 of 2200/96):

- e) 4 - fruit and vegetables,
- f) 3 - products intended for processing,
- g) 1 – fruit,
- h) 1 – vegetables.

The minimum requirements for full recognition of Producer Organisations – laid down in art. 4 of Commission Regulation No 1432/2003:

- a) the minimum number of members is fixed at five producers by category,
- b) the minimum volume of marketable production is fixed at EUR 100 000.

The minimum requirements for partial recognition of Producer Organisations – according to the rules of the Polish Law (Regulation of Ministry of Agriculture and Rural Development):

- a) the minimum number of members is fixed at five producers by category,
- b) the minimum volume of marketable production is fixed at EUR 50 000.

- if yes what are the tendencies for each of these operations over the past ten years,

The recent history of organising of farmers in Poland is affected the situation before 1989 year.

The history of organising of farmers was influenced by the situation in farming before 1989 year. After 1989 organising of farmers and development of rules for organising were developing slowly. This has to deal with the mentality of farmers. There were 80% of private farms, 15 % of state farms and only 5 % of cooperatives in Poland before 1989. This situation is different than the one in Slovakia or the Czech Republic where almost 100 % of farms were either cooperatives or state farms. Cooperative farming was at that time rejected by farmers as a method of merging of farmers by force. After 1989 and after agricultural reforms organising of farmers became very important, especially for small farms that had and still have less than 7 ha of land. Farmers however rejected organising and there is a psychological aspect of rejection of any form of organising of farmers.

- if some grubbing up of orchards and/or replacements of varieties have been done with EU subsidies, which programme was it and what were the conditions linked to these grants ?

In contrast to other new member states, in Poland there was no support in the pre-accession period provided for grubbing up of orchards and/or replacement of varieties. Support of producers was mainly provided in the form of credit subsidies for investments and was not directly linked to grubbing up of orchards or replacement of varieties. This type of support was important in the times of high interest rates in Poland in the beginning of 90s. There was no other type of support. Pre-accession support provided through SAPARD programme was also used by fruit producers for investment. The EU programme of support is very beneficial for fruit producers. Producer organisations are recipients of the support. Support is used for investment, 50 % of the investment cost is covered by EU budget, 5 – 25% of the investment is covered by the national budget.

- in particular were there environmental conditions linked to the grants?

There were no environmental conditions linked to the only subsidy type support for apple farmers – subsidised interest rate for investments. However, with the SAPARD programme and now with SOP and RDP, there are strict environmental conditions required both at the farm level as well as at the project level.

The CMO effects

- In terms of orchard management, did the announcement of EU membership and then the actual membership itself change the behaviour of the producers?

In respect to the “orchard management” there were no adjustments of the farmers prior to the EU accession. Farming practices at the level of orchard management remained unchanged.

- Did the producers modify their practices before the CMO implementation in order to comply with its requirements from the beginning of its implementation? (Gives examples if possible)

Producers started to organise and form producer organisation because it was the only way how to obtain support from EU resources.

The behaviour of apple producers has been gradually changing. It became necessary to form producer organisations according to EU conditions because only those producer organisations can obtain resources within CMO.

In 1997 Ministry of Agriculture put significant effort into information campaign to persuade farmers about positive effect of organising of producers and about organising and merging of farmers in the EU countries. The initiative was co-financed from the resources of PHARE programme.

In 2001 year the first Producer Organisation consisting of more than 1000 members was formed. The formation of the Producer Organisation was influenced by the government subsidy.

Currently new producer organisations based on EU legislation are being formed. Only such producer organisations are eligible for support within CMO. From the legislative viewpoint the implementation of CMO in fruits and vegetables is prepared.

- What is your opinion on the risks associated with the implementation of the CMO relating to fruits in your country?

From the legal aspect Poland has no problems with the implementation of CMO. All regulations were entirely implemented. Administrative complexity poses the biggest problem at the time being.

Administrative complexity slows down the process of processing of applications and their implementation.

There is also an indirect risk of the implementation of CMO which is related to differentiated rates of support from the EU budget.

- Do you think that this will lead to important changes in agricultural practices :
 - o increase in fertiliser use
 - o increase in pesticide use

In our opinion there will be no significant changes in use of pesticides and fertilisers in Poland. Although impact of the EU accession will change some practises of the apple farmers. For example: On one hand EU environmental constraints will push the use of fertilizer and pesticides down, on the other hand however, better economic conditions of farmers may lead them to invest in soil improvement, and/or higher protection of crop from diseases.

In addition, there is extensively applied integrated production in Poland which constitutes more than 50 % of production of apples. This production uses minimum amount of chemicals and other harmful elements. Chemicals are being replaced by natural material.

- o increase in the density of plantation

Yes. More funds available will be invested in restructuring of old orchards and with new technologies the density of the plantations will definitely increase.

- o development of irrigation

In development of irrigation is not as obvious as with the density. Although to eliminate water shortage risks during the production process will lead to investments of the irrigation systems as well. While density of plantations is expected to grow across the country irrigation will be installed mainly in dry areas. In general development of the irrigated plantations can be expected as a result of the implementation of CMO and other EU related measures.

- o replacement of old orchards by new varieties

Process of replacements of old orchards will speed up relative to the pre-accession period. It is expected that higher profits of farmers due to increased income from the EU will cause such movements.

- o disappearance of some varieties

There are some traditional Polish varieties of apples as ZBERSKA and BORKIN, which are less productive and leaving the market. In a long run such apple varieties may disappear. However, the structure of apple farms in Poland (many very small farms, gardens) and their low economic viability may actually preserve such varieties. And with upcoming biodiversity projects that include promotion of old traditional apples or food recipe they may survive and even become popular.

- o changes in the share of the production sold in accordance with EU fruits standards

All interviewed participants agreed that share of the production sold in accordance with EU fruits standards will definitely increase. The most progressive farmers have already been focused on quality rather than quantity. New investments into replantation and irrigation systems and new farming, sorting, packing and storing technologies will definitely improve quality of sold products,

and thus shift towards EU standards. This, however, may not be seen in the first years after accession but in a mid-term period.

- changes in the size of orchards

Based on discussions it is expected that size of farms, mainly those intensive, will slowly grow, while the area of old orchards will diminish. Larger and more progressive farmers will increase their farm size faster than small farmers. It is also expected that average age of old orchards will grow due to slow pace of replanting.

- other environmental effects

Very vague environmental protection before accession and stricter and stricter rules within EU will definitely affect behaviour of farmers. Actually requirements for environmental protection may bring faster effect than changes in farming practices described above. However, at this stage many farmers underestimate any requirements linked to the environment. This is expected to change quite quickly after first controls.

- Do you think that this will lead to important changes in the organisation of the offer

- grouping of producers

Here we can expect really significant changes. Total number of producer organisations reached 51 in 2004. This number will significantly grow in the future. In the post accession period individual producers find it necessary to organize for several reasons: expansion of business, common purchase of technology, provision of services to individual members. There is also cooperation between producer organizations according to representatives of producers.

- elimination of some small producers

Mergers of producers lead to decline of the number of small producers. All small producers will not disappear however. For some small producers production of apples is a hobby or they produce apples for self consumption.

Producers organisations

- Are there producer organisations ? If not why not?

Yes, there are producer organisations. Some of them were established according to national law. These producer organisations require at least 5 members and turnover at least 50 000 EUR.

- If yes, what were the main difficulties in starting these organisations?

At the beginning the formation of producer organisation was slow because of the mentality of farmers that was anti mergers.

It was also difficult to fulfil the requirements of the number of members and minimal turnover. Currently producer organisations that were established according to national legislation must be transformed into producer organisations based on EU legislation.

- Did they exist before the EU membership?

Yes, producer organisations existed before the EU accession. They were based on national legislation. These producer organisations that were created after 2001 are being transformed to producer organisations based on EU legislation.

- Which type of institution is it (i.e.: Co-operative, private, etc.)

Producer organisations consist of legal persons or natural persons, mostly farmers. Producer organisations are in essence new forms of cooperatives. From the legal point of view producer organisations are limited liability companies or cooperatives.

- Which type of budget (i.e.: private funding, grants from the state, from EU programmes, if yes which ones...)?

Producer organisations are financed from the following sources:

4.1 % PO members' contribution to cover operational costs

4.1 % support for the turnover (financed from the OP)

2.05% - refund from the national sources (if they are available)

- Type of activities (i.e.: advice to farmers, selling, etc.)

The following services are provided by the producer organisations:

- Common procurement of technology, seeds and fertilizers
- Provision of storage capacity, cooling equipment, sorting and packaging technology
- Common presentation of interests
- Common selling of products
- Marketing
- Consulting

- Which project of development? With which funding?

Project that prompted formation of producer organisations was realized in 1997 and was co-financed from Phare programme.

- Is there at state level an interbranch organisation?

Producer organisations are associations at national level. They exclude foreign subjects, i.e. they do not have international branches.

- If not why not, if yes which organisations is it composed of?

Since the entire process of creation of producer organisations is at its beginning there was no need for such international cooperation. However, as in the old MS and with growing global markets it can be expected that in the near future such international branches will either be created or merged with existing foreign producers organisations.

Conclusion – Recommendations

- According to you what are the main problems associated with the implementation of the Fruits CMO in your country?

During interviews with different stakeholders several problems for apple farmers in Poland were mentioned. However only very few were associated with the implementation of the CMO. This can be attributed to two factors: i) there are more crucial problems in the sector than those associated with the CMO, and ii) there is still lack of knowledge of the CMO system at the farm level and there is a need to better identify directly related problems. Nevertheless as it was observed during the missions there are three areas of problems identified:

- Administrative complexity of the system of submission of applications, their processing, and of making payments.

- Still low level of organising of producers, including setting up of mutual rules within the PO. This is closely related to the information available. In general information flows on the new EU oriented funds within the country are not adequate“ a) they are not provided in the timely, b) lecturers are not professionals, c) facts provided at one seminar are often changed on the next one. In addition there is almost no transfer of knowledge from the old MS to the new ones at the farm level.
- Complying with the EU fruit standards.

Other not directly related problems of Polish farmers could be summarised:

- Weak infrastructure, i.e. storage capacity, sorting and packaging technology, transportation.
 - Supermarket chains are becoming important players. In the following 5 years it is expected that supermarket chains will control 50 % of food market. Traditional retailers will survive only in small towns and rural areas.
 - Local producers have to comply with requirements of the supermarket chains if they want to have access to markets. The requirements include high quality, low prices, and stability of deliveries.
- What could be the solutions to these problems (with a focus on environmental ones)?

Bellow there are some solutions to the problems listed above. However, none of them is related to the environment. This is due to the fact that the environment is on the list of problems of apple farmers at the very bottom if at all. In general there are no known considerable environmental problems in Polish apple sector. There is very little knowledge and experience with environmental problems. Actually, environmental aspects of agricultural production are relatively new for old MS and they are brand new for the new MS. The last but not the least, there are many more important problems (mainly market oriented) for the farmers.

- Simplification of the CMO administration depends on two factors: i) some redundant operations will be gradually removed and others will be optimized when staff becomes more experienced and ii) simplification of EC regulations. In any case this will take some time. At the moment in Poland as well as in other new member states external (not agricultural) control bodies are discovering new administrative obstacles, rather than reducing them.
- Still a lot of work needs to be done at the Producer Organisation level. The best motivating and driving force behind the improvement at this level is the subsidies that farmers could receive. Development of the new PO as well as improvement of the existing ones is apparent. Closer cooperation of the apple producers is important in order to use the maximum of funds for which they are entitled. Access of farmers to the information provided from the Ministry or Agency possibly through consulting companies will have to be improved. Ministry as well as the Paying Agencies will have to understand that besides the creation and implementation of the policies they will either have to focus on the quality of training, hiring of professional lecturers, or outsourcing such activities.
- It is obvious that recently introduced instruments will force apple farmers to comply with EU standards. At the moment, EU standards for fruits are considered by mainly larger producers and by the recognised Producers Groups. There are few promotion activities of the Ministry to enhance knowledge of the EU standards but continuation in such activities is further required.
- The biggest challenge for the producers and their organisations is the full utilisation of all instruments of CMO in order to adjust to market demand and to increase competitiveness. The crucial role will be played by operational programmes implemented by producers organisations.

APPENDICES

Annex 1: List of people met

Annex 2: Main bibliography identified in relation with the study including reports made prior to the EU membership

Annex 1: List of people met

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Annex 2: Main bibliography identified in relation with the study including reports made prior to the EU membership

Data of the Agricultural Census as of 20 V.

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