

Report on implementability of agro-environmental targets in Poland

BALTIC COMPASS WP 6

Baltic Sea Region Programme

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1. Introduction

This report presents the elements that contributed to the strategy of Polish Ecological Policy on the impact of agriculture on the environment, the National Development Plan: "Improving the competitiveness of the agro-food economy" and "Sustainable rural development."

The purpose of this report is to identify actions and assess the implementation of the Common Agricultural Policy (CAP) in Poland, that contributed to the National Environmental Policy Strategy (NEPS), the National Development Plan (NDP) and Sustainable Rural Development (SRD).

1.1 The state of agriculture in Poland

Agricultural land in Poland covers 60% of the total land area, and forests cover about 30%. Both agriculture and forestry have a significant impact on soil and water circulation and hence on the quality of the exchange of micro-catchment water, the catchment areas of major rivers, and ultimately on the overall quality of Poland's waters and the Baltic Sea.

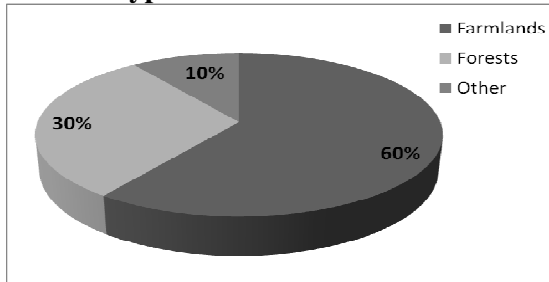
The purpose of this report is to identify actions and assess their implementation of the CAP in Poland that contributed to the NEPS, the NDP and SRD.

In consideration that the competitiveness of the agro-food sector and sustainable development of rural areas form part of the Common Agricultural Policy, attention should be paid to some basic realities of Polish agriculture. As it is clear from Figure 1, 60% of the country's land area is arable land, the majority of the remaining area is wooded lands (30%), and just under 10% consists of 'other' areas, including built areas, surface waters and waste lands. Soils in Poland are characterized by relatively strong acidification covering over 50% of the total area. Farmland soils are the weakest and more than 33% of these belong mainly to soil quality classes V and VI¹. Fertile soils in the range of class I-III represent only approximately 25% of agricultural land while the fourth class represents about 40% of the acreage.²

¹ Where Class I represents the best arable soils, Class II represents very good arable soils, Class III A represents good arable soils, Class III B represents moderately good arable soils, Class IVA represents moderate soils (better), Class IVB represents moderate soils (worse), Class V represents poor arable soils, Class VI represents the poorest arable soils and Class VIR represents soils for afforestation.

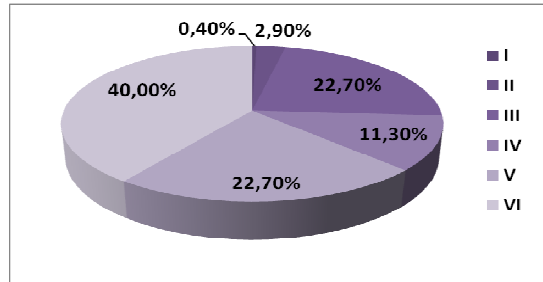
² Statistical yearbook of agriculture, 2010, Warsaw. Central Statistical Office.

Figure 1 The division of Polish territory by land use type.



Source: Own compilation based on the Yearbook, CSO 2008

Figure 2 Soil quality classes of agricultural land in Poland in 2000



Source: NEP in 2009 – 2012

A significant share of light and medium soils in Poland indicates that they are exposed to wind and water erosion. Estimates indicate over 25% of soils are at risk of wind erosion, and 28% at risk of water erosion (NEPS in 2009-2012). Counter-actions towards limiting erosion are mainly based on partial tree planting in chosen parts of fields and areas along streams, and protection of plant cover and cultivation techniques that limit the need for ploughing. An important element towards limiting erosion is to educate farmers on the principles of good agricultural practices adapted to the quality of soils. In addition to the low awareness of many farmers, an additional problem for education in the pursuit of good agricultural practices, soil, water and biodiversity conservation is the large number (1 807 000) of small-scale agricultural holdings in Poland (average area of only 7.4 hectares), which result in quite considerable fragmentation of the agricultural landscape.

In Poland, more than 56% of farms are of the area 5 ha (Fig. 3), producing mainly for their own consumption needs since these are not being met given low incomes. Farms producing for the market range in size from 5-10 ha, 20-50 ha and above 50 hectares, and these constitute just over 40% of Polish farms. The smallest group is those holding acreages from 50-100 ha and >100 hectares, which together account for just 1% of Polish farms.

Figure 3 Acreage structure of Polish farms

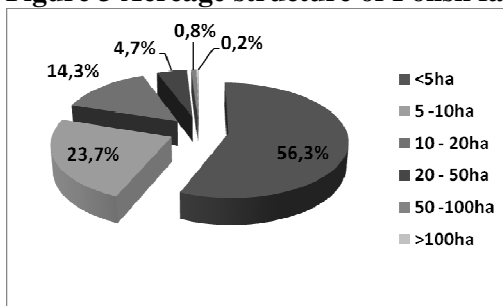
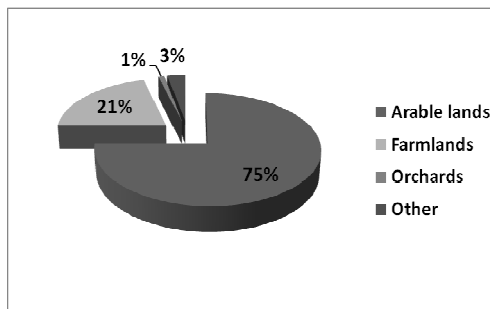


Figure 4 Acreage structure of farm lands in Poland

Source: Own compilation based on the Yearbook, CSO 2008



Source: Own compilation based on the Yearbook, CSO 2008

The structure of agricultural land with only about 21% of permanent grasslands and 75% of arable land (Fig. 4) may indicate the presence of risk of soil degradation processes.

The amount of fertilizers used in Poland is moderate, and their use was significantly lower in both the 1990's, and after 2000, as compared with the 1980's (Table 1). The significant issue is the share of nitrogen, phosphorous and potassium in organic fertilizers as they also deliver organic matter to the ecosystem which allows supplement carbon deficit in soil. This is an important element because of the relatively large share of light and medium soils in Poland.

Table 1. Average quantities of applied nutrients N, P, and K on 1ha of agricultural land in the years 1984, 2002, and 2004 (in kg) in Poland

Year	Fertilizer	Total N, P, K	N	P	K
1984	organic	102,9	38,5	25,8	38,6
	mineral	182,5	70,4	21,1	53,2
	total	285,4	108,9	46,9	91,8
1992	organic	59,9	21,6	17,1	21,1
	mineral	62,1	33,9	5,4	13,3
	total	122,0	55,5	22,5	34,4
2004	organic	58,7	21,4	16,2	21,0
	mineral	99,3	54,8	8,7	20,6
	total	158,0	76,2	24,8	41,6

Source: Twardy et al., 2006

2. Methodology

Sources listed below have been used in preparation of the report:

- Case studies and compilations relating to National Ecological Policy³;
- Prognoses of activities impact on environment;⁴
- Information retrieved from webpages of the Ministry of Agriculture and Rural Development (MRiRW)⁵, Ministry of the Environment (MS)⁶, and Agency for Restructuring and Modernisation of Agriculture (ARiMR)⁷;
- Scientific publications;
- Data from the Central Statistical Office (GUS)⁸,
- Direct contact with employees of ARiMR;
- Advisory Centers for Agriculture and Rural Development (ODR),
- The Rural Areas Development Plan (PROW)⁹ and Sectoral Operational Program (SPO)¹⁰.

³ Polityka ekologiczna państwa na lata 2007 – 2010 z uwzględnieniem perspektywy na lata 2011 – 2014. Warszawa, grudzień 2006. Ministerstwo Środowiska.

⁴ http://www.mrr.gov.pl/fundusze/fundusze_europejskie/oos/strony/ocena_oddzialywania_na_srodowisko.aspx

⁵ <http://www.minrol.gov.pl/index.php?eng>

⁶ <http://www.mos.gov.pl/?j=en>

⁷ <http://www.arimr.gov.pl/o-arimr/information-about-the-agency.html>

⁸ http://www.stat.gov.pl/gus/index_ENG_HTML.htm

⁹ <http://minrol.gov.pl/pol/wsparcie-rolnictwa-i-rybolostwa/PROW-2007-2013>

¹⁰

<http://funduszestrukturalne.gov.pl/SPO+Restrukturyzacje+i+Modernizacja+Sektora+Zywnosciowego+Oraz+Rozwoju+Obszarow+Wiejskich/>

3. Agro-environmental targets

Polish policies for environmental protection, sustainable agriculture and preservation of biodiversity regulate directives adopted since Polish accession to the EU in 2004.

Water Framework Directive (WFD) – water management plan

The Water Framework Directive (WFD) of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy has been an effect of longstanding works within EU, aiming at better protection of water bodies through implementing common policy based on transparent, effective and coherent legislative frames. The Directive obliges Member States to the rational use and protection of water resources in accordance with the principles of sustainable development. The aim of the directive is to achieve a good state of water by 2015.

The aim of the Directive derives from the Balanced Development Policy and regards:

- meeting the water needs of the population, agriculture and industry;
- promoting sustainable use of water;
- protection of water and ecosystems to a good ecological state;
- improving water quality and ecosystems degraded by human activities;
- reduction of groundwater pollution; and,
- reduction of floods and drought effects.

Notations of the WFD introduce a system of water management planning by river basin. For the purpose of achieving good water quality plans will be drawn up for each country's river basins, as well as for water and environmental programs .

The transposition of the Water Framework Directive to Polish legislation occurred primarily through the *Water Law*¹¹ and its implementing legislation. In addition, the WFD has also been transposed by the *Environmental Protection Act*¹² and *Law on collective water supply and collective wastewater treatment*¹³ and their implementing legislation.

To achieve the environmental targets Member States (MS) have been equipped with economic, social and legal tools of which the most important are:

- Management, conservation and water management implemented within hydrographic areas (so-called 'basin management'),

¹¹ Dz.U.05.239.2019; <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20052392019>

¹² Dz.U.08.25.150; <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20080250150>

¹³ Dz.U.06.123.858; <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20061230858>

- Implementation of action programs to achieve the improvement, or to sustain good water status, within the river basins.

WFD implementation in Poland has been performed by introducing its entries into the *Water Act* (Dz.U z 2005r. nr 239, poz. 2019 z późn. zm.) and its implementing acts. Moreover, the WFD has been implemented through the introduction of the *Environmental Protection Act* (Dz.U. z 2008r. nr. 25, poz. 150 z późn. zm.) and the *Act on collective water supply and waste water discharge* (Dz. U. z 2006r. nr 123, poz. 858 z późn. zm.) and the implementing legislation for these acts. The *Water Act* obliges the President of the National Water Management Board to develop management plans for river basins, as well as a water–environmental program. It also obliges the Regional Directors to develop stipulations for water use in water regions and chosen basins. The period for the plan’s verification is 6 years.

The *Water Law* that transposes the WFD, among planning documents, distinguishes between river basin management plans and the National Environmental Program – the equivalent of the action plans under the WFD. Issues that should be included in plans and in the Program have been defined respectively in Articles 114 and 113a of the Act.

According to Article 119 of the Act the President of the National Water Management Board after consultation with the Minister responsible for water management, is obliged to compile and update plans for river basins. The Council of Ministers is obliged to approve the plans and publish them in the Official Journal of the Republic of Poland – “*Monitor Polski*”.

In 2008 the first projects were developed for further planning of water management in the basins of Vistula, Oder, Dnistr, Danube, Jarft, Nemunas, Pregoła, Świeża and Ucher. In the period from 22.12.2008 to 22.06.2009 the projects have undergone public consultation processes, conducted in collaboration with the National Water Management Board and Regional Boards. All the collected observations and opinions have been carefully examined and those that were warranted have been included in the final versions of plans. Moreover, environmental impact assessment of the projects in the river basin management plans has been included in a strategic environmental assessment. In July 2010 plans were approved by the Council of Ministers.

The National Water and Environmental Program (NWEP) is a coordinated set of activities, implementation of which will help to achieve by 2015 the environmental goals that are consistent with the WFD. NWEP includes the WFD requirements such as the breakdown of all actions on the basic and complementary ones.

Primary measures are directed to the implementation on almost all water bodies throughout the country (where it is required on the basis of studies carried out in accordance

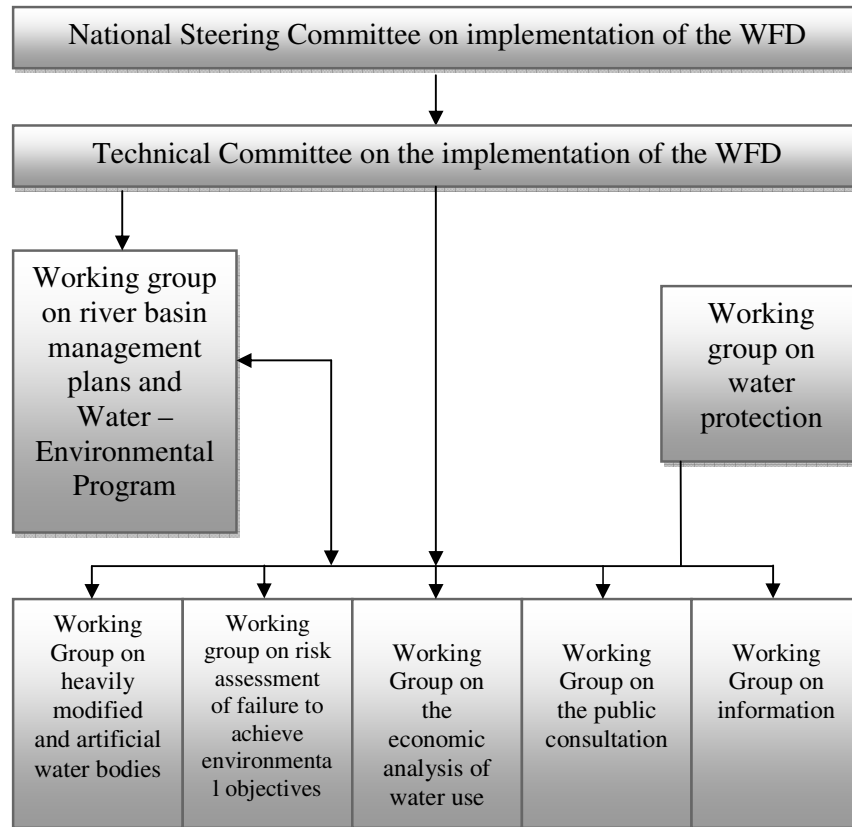
with Article 5 of the WFD). As part of the primary measures, basic activities were divided into two groups: A and B.

Core actions A are based on:

- National Program for Municipal Wastewater Treatment;
- Program of facilitating agglomerations with less than 2000 pe in sewage treatment plants and sewage pipelines systems;
- Program for facilitating the food industry of a size greater than 4000 pe¹⁴ in devices for discharging wastewater directly into surface waters that is required under Polish law standards for water protection;
- Programs adapted for areas vulnerable to pollution from agricultural sources; and,
- Measures to prevent groundwater pollution by pollutants or groups of pollutants posing a serious threat to the aquatic environment, i.e. records of national laws and the EU law to protect and restore the proper status of water bodies and ecosystems dependent on groundwater, allowing to complete obligations of the directives defined in Annex VI, Part A (in accordance with Article. 11 pts 3 WFD), including Council Directive 91/676/EEC.

¹⁴ pe – people equivalent

Figure 5 The organization of the implementation of the Water Framework Directive in Poland (Source: Own compilation)



The report on the actions aiming for implementation of the WFD in Poland was submitted to the European Commission in March 2010.

Management plans developed for the river basins are directly related to the basic planning units such as integrated surface and groundwater bodies. Plans include the following information: a list of competent authorities, the general characteristics of the river basin with the determination of the surface water and groundwater bodies, a summary of significant anthropogenic pressures, a register of protected areas, presentation of the monitoring network together with results, a list of environmental objectives, a summary of programs and the use of economic analysis of water, as well as information about the impact of climate change on water and on other programs and plans, and a summary of public participation.

The National Water and Environmental Program (NWEP) has been prepared with respect to the distribution of river basins. The program identifies core and supplementary activities aimed at improving or maintaining good water status in different parts of the merged water bodies on the territory of Poland.

Nitrates Directive

Council Directive 91/676/EEC (known as the Nitrate Directive) concerning the protection of waters against pollution caused by nitrates from agricultural sources was adopted on 12 December 1991, and aims to:

- reduce water pollution by nitrates from agricultural sources, and,
- prevent further pollution.

The Nitrates Directive obliges the Member States of the European Union to take several actions, including designation within the territory of the Member States of the areas that:

- are drained into surface water and/or groundwater and that contain or may contain more than 50 mg/l nitrates if proper action is not taken as described in the Directive; and,
- are drained into waters which are eutrophic or may become eutrophic if proper action is not taken.

Poland, becoming a member of the EU in 2004, is committed to implementing the Nitrates Directive.

The transposition of the Nitrates Directive into national law has been made through:

- *Water Law*¹⁵ on 18 July 2001
- Regulation of the Minister of the Environment of 23 December 2002 on the criteria for designation of waters sensitive to pollution by nitrogen compounds from agricultural sources¹⁶;
- Regulation of the Minister of the Environment of 23 December 2002 on the detailed requirements to be met by action programs aimed at reducing nitrogen runoff from agricultural sources¹⁷;
- 11 regulations of Directors of Regional Water Management Boards (RZGW) determining waters sensitive to pollution by nitrogen compounds from agricultural sources, and vulnerable areas from which the outflow of nitrogen from agricultural sources to these waters should be limited;
- 21 Regulations of Directors of RZGW on the introduction of an action program aimed at reducing nitrogen runoff from agricultural sources in the vulnerable area;

¹⁵ Dz.U.05.239.2019; <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20052392019>

¹⁶ Dz.U.Nr. 241, poz.2093; <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20022412093>

¹⁷ Dz.U.2003, nr 4., poz. 44; <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20030040044>

- *Law of 26 July 2000 on fertilizers and fertilization*¹⁸;
- Regulation of the Minister of Agriculture and Rural Development of 1 June 2001 on the detailed method of fertilizer application, and conducting training in their use¹⁹.

Previous activities

In the course of implementing the Nitrates Directive in Poland 21 areas have been designated as vulnerable to nitrates from agricultural sources from which the outflow of nitrogen from agricultural sources to water should be limited. These areas occupy 2% of the country, and are referred to as OSN areas. The bases for establishing OSN were:

- assessment of water pollution by nitrates, carried out on the basis of results of monitoring of surface and groundwater, which has been implemented in accordance with the programs of the Chief Inspector of Environmental Protection;
- determination of the extent of the agricultural activities' impact on water quality, pursuant to identifying and assessing the size and type of agricultural production and the analysis of environmental conditions, including climate, hydrogeological conditions, the type and abundance of soil nutrients (nitrogen and phosphorous), landscape, etc.
- the conditions of sub-basins, from which the pollution flows into the surface waters.
- OSN have been legally empowered by regulations of 11 Regional Boards of Directors of each RZGW, issued in the majority at the end of 2003 and in the first quarter of 2004. The Regulations of Directors of RZGW have been published in the Official Journals of each region.

For all OSNs action programs have been developed (21 programs) and implemented by the Regulations of Directors of each RZGW. Regulations were published in the official journals of each province, and thus became local law. Implementation of the action programs began on 1 May 2004 and lasted 4 years - to 30 April 2008.

Based on monitoring carried out after this period, a reduction in the number of points of the endangered or polluted waters (which ultimately reduced the load of nitrate runoff from OSNs) was performed. Basing on the results from monitoring also a reduction of the area defined as OSN has been suggested (which differs significantly from the proposals of EU experts).

¹⁸ Dz.U. 2000, nr. 89, poz. 991; <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20000890991>

¹⁹ Dz.U. 2000, nr 60, poz. 616; <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20010600616>

The tasks specified in the action programs have been addressed in particular to farmers and to departmental units of agriculture and environment cooperating with farmers.

The most important actions to implement the programs during the 4 year period were:

- execution of tasks by the farmers under the rules of good agricultural practice and the investment objectives targeting the construction of reservoirs and plates for the collection and storage of manure from livestock;
- education of farmers in regards the current law and the principles of good agricultural practice;
- organizational and technical assistance in the implementation of water conservation investments in farms (tanks and plates to collect and store manure, wastewater treatment facilities domestic);
- agricultural advisory services in developing plans for fertilization;
- control of the implementation of tasks resulting from the action programs;
- monitoring of surface water and groundwater quality in vulnerable areas, in order to assess the effects of the implementation of action programs.

As part of former actions a new, improved Code of Good Agricultural Practice²⁰ has been developed and adapted to the recommendations of the Nitrates Directive. Subsequently, the Code has been disseminated among farmers and agricultural environments.

Poland has designated areas (zones) known as areas particularly vulnerable to nitrates from agricultural sources (OSN), and is undertaking actions such as:

- monitoring of nitrate concentration in surface water and groundwater, assessing the eutrophic state of fresh surface waters, estuaries and coastal marine waters for the purpose of reviewing and completing the designated OSN;
- establishing a program of action in relation to the designated OSN;
- OSN review and revision of the program of action and any additional actions at least every 4 years;
- Notifying the European Commission of any changes or additions to the designated OSN and action programs within 6 months; and,
- Submitting reports to the European Commission containing information on each four-year period of implementation of the Nitrates Directive, within 6 months after the end of the period to which it refers.

²⁰http://www.kzgw.gov.pl/files/file/Materialy_i_Informacje/Dyrektywy_Unijne/Azotowa/kodeks_dobrej_praktyki_rolniczej.pdf

In the implementation of Article 10 Council Directive 91/676/EEC, Poland was obliged to submit to the European Commission a report containing information on the four-year period of implementation of this directive, within 6 months after the end of the period to which it relates, which was the end of October 2008 for Poland.

"Minister of the Environment Report on the implementation of Council Directive of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (91/676/EEC)", has been prepared in accordance with the guide for the development of the reports of Member States, dated February 2008 - "Nitrates Directive (91/676/EEC) Status and trends of changes in the aquatic environment and agricultural practice; Appendix: Templates reporting format and geographical information and summary tables relating to water quality. "

The draft of the report has been passed by the National Water Management Board for public consultation in a number of institutions. After public consultation the report has been sent to the management of the Ministry of the Environment and after its acceptance it has been sent by the Minister of the Environment to the European Commission.

In accordance to the provisions of Article 3 paragraph 4, and Article 5 paragraph 7, of Council Directive 91/676/EEC, a document entitled 'Information from the Minister of the Environment on the implementation of Council Directive 91/676/EEC of 12 December 1991, concerning the protection of waters against pollution caused by nitrates from agricultural sources' regarding:

- review of areas particularly vulnerable to nitrates from agricultural sources (OSN) in Poland; and,
- implementation of action programs aimed at reducing nitrogen runoff from agricultural sources for the revised areas vulnerable to nitrates from agricultural sources (for the period May 2008 - April 2012).

The document has been prepared by the National Water Management Board and forwarded by the Ministry of Environment on to the European Commission.

Based on the expertise containing, inter alia, assessment of water pollution by nitrates from agricultural sources and the state of agriculture, the verification of the areas of individual OSN borders within each RZGW has been made.

Therefore, during the period from May 2008 to April 2012 there will be 19 OSNs that have been legally empowered by regulations of directors of each RZGW. Currently, the area designated as OSN is 4623.14 km², which represents approximately 1.49% of the total country, and which is about 0.5% less than in 2004. The reason for reducing the area of OSN

in 2008 was the reduction of number of monitoring points where water has been endangered by nitrates from agriculture as well as them in the river basins by selvedges geodesic boundaries not by municipalities, as it had been done in 2004. For the verification and the new designation of OSNs action programs implemented by Regulations of directors RZGW have been developed.

Habitats Directive

The most important piece of legislation of the European Union concerning the protection of nature is the EEC Council Directive on the conservation of natural habitats and of wild fauna and flora 92/43/EEC, enacted May 21, 1992 and amended by Directive 97/62/EWG, commonly referred to in short as the Habitats Directive.

Implementation of the Habitats Directive in Poland

In Poland there are 69 natural habitat types listed in Annex I of the Habitats Directive. Of the taxa listed in Annex II, Polish fauna and flora represents 70 species of animals (18 species of mammals, 1 species of reptile, 3 species of amphibians, 17 species of fish) 31 species of invertebrates (15 species of beetles, 8 species of butterflies, 2 species of dragonflies, 4 species of land snails and 2 species of mussels), 16 species of vascular plants, 7 species of moss.

In Annex IV, specifying the species under strict protection, there are also 79 species of animals and one species of vascular plant listed in Poland, including (34 mammals, 5 reptiles, 10 amphibians, 1 fish, and 29 invertebrates, including 7 beetles, 12 butterflies, 7 dragonflies, and 2 mussels), 67 taxa listed in Annex II and IV are subjected to strict protection in Poland.

The current Regulation of the Minister of Environment from 2001 listing species of plants and animals under strict protection has already included taxa listed in Annex IV. The Polish list of taxa being under strict protection partially reflects taxa listed in Annex V.

Poland notified the European Commission by proposal to amend the list of natural habitats in Annex I of the Habitats Directive to include an additional 19 types; 46 species of plants and 55 species of animals to Appendix II; 8 species of plants and 39 animal species to Annex IV; and, 6 species to Annex V. After lengthy discussions, the experts of the European Commission approved introduction of 2 habitat types (fir *Abietetetum polonicum* and relict pine forests *Calamagrosi vario-Pinetum* in the Tatra Mountains and Pieniny), and 9 have been taken under consideration by extending the definitions of existing habitats in Annex I. 17 plant species and 14 animal species of the species proposed by Poland have been pre-qualified.

The full list of protected habitats within the Community and submitted by Poland as requiring protection, including acceptable form variations and also those ones rejected by the EU experts, can be found in the Regulation of the Minister of the Environment of 14 August 2001, determining the types of habitats to be protected in Poland.

Regardless of the work on the complementation of the content of the annexes, for several years Poland has carried out work on the assignment of the Natura 2000 special bird protection areas network (the SPA network).

The Birds Directive

On the day of accession to the Community, Poland committed to comply with the Birds Directive, and in 2004 the Minister of the Environment appointed Natura 2000 special bird protection areas (SPAs, or colloquially speaking, bird refuges).

The main objective of the Birds Directive is the protection and preservation of all naturally occurring bird populations in the wild, legislation to regulate commerce and raise game birds, and prevent unacceptable methods of catching and killing birds.

To define special protection zones in a given area an essential criteria is the number of birds listed in the Birds Directive. Numbers are different for each species and for different periods of their life cycle throughout the year.

For the designation of special protection areas Poland has used the criteria listed in the Birds Directive. Bird Refuges aim to protect the habitats of birds, including the conservation of a particular type of landscape and the preservation and/or restoration of some elements of this landscape, and even the individual elements that enhance the landscape, since it should be noted that certain species of birds use only some elements of the landscape. As such, some birds choose nesting habitats that meet their nutritional requirements, while migratory birds choose habitats with respect to nutritional and safety requirements.

Occurrence of birds in the agricultural landscape depends on maintaining extensive farming and the best instrument to achieve their protection may be an Agro–Environmental Program.

Legal basis:

Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds;

The Law of 16 April 2004 on Nature Conservation;

Regulation of the Minister of Environment of 21 July 2004 on special protection areas for birds, Natura 2000.

Natura 2000 in Poland on the background of nature conservation

Natura 2000 has been introduced by the *Nature Conservation Act of 2004*. It is a new form of nature conservation that presents a serious challenge in the management of protected areas in Poland. Although work on preparing the Natura 2000 network in Poland has begun, it is far from being complete. Under the Ministry of the Environment of 21 July 2004, the network intended to cover 72 areas in Poland resulting from the Birds Directive, a total of approximately 7.8% of Polish territory. Also a proposal to protect the 184 areas under the Habitats Directive, covering approximately 3.6% of the country, was presented to the Commission [Radziejowski, 2004²¹]. The European Commission considered that proposed by Poland number of areas assigned for protection was inadequate in relation to the natural values present in our country, and called upon Poland to revise the list. According to the European Commission's proposals the Natura 2000 Network in Poland should include about 460 objects and cover nearly 10% of our country (excluding facilities that protect bird habitats). After the so-called bio-geographical seminar on the Alpine region (i.e. the Polish mountain areas) in early 2006, the government presented proposals for 10 other habitat areas, which increased the surface area covered by the Special Protected Areas to 4.2%²².

In response to the EU questions about backwardness in the implementation of the Natura2000 Network in Poland it should be noted that Poland protects wildlife. It should be noted that under national law more than 32% of our country is already covered by various forms of conservation; including 23 national parks, 120 landscape parks, and more than 1,368 nature reserves. There are also features included in global conservation systems, such as on the World Heritage List, and the World Biosphere Reserves under the UNESCO program. Therefore, it is clear that most of the features proposed by Poland to be protected under the Natura 2000 network are located within these areas. It should be emphasized that within the existing protected areas stricter rules apply than those proposed for the protection of Natura 2000 sites. For comparison it should be noted that "traditional" protected areas cover about 12% of the Earth while in Europe it's 14.6% of the total land area²³.

There is no direct record of how the plans for the protection of the Natura2000 Network will be entered into the planning system. It is assumed that the legal basis for such action resides in the law on spatial planning and development (Article 15) as well as in rules of environmental protection.

²¹ Radziejowski J. 2004: Natura 2000 – nowa forma obszarów chronionych „Człowiek i Środowisko”, Nr 3-4,

²² Projekt „Europejska Sieć Ekologiczna Natura 2000”, portal internetowy Ministerstwa Środowiska www.mos.gov.pl

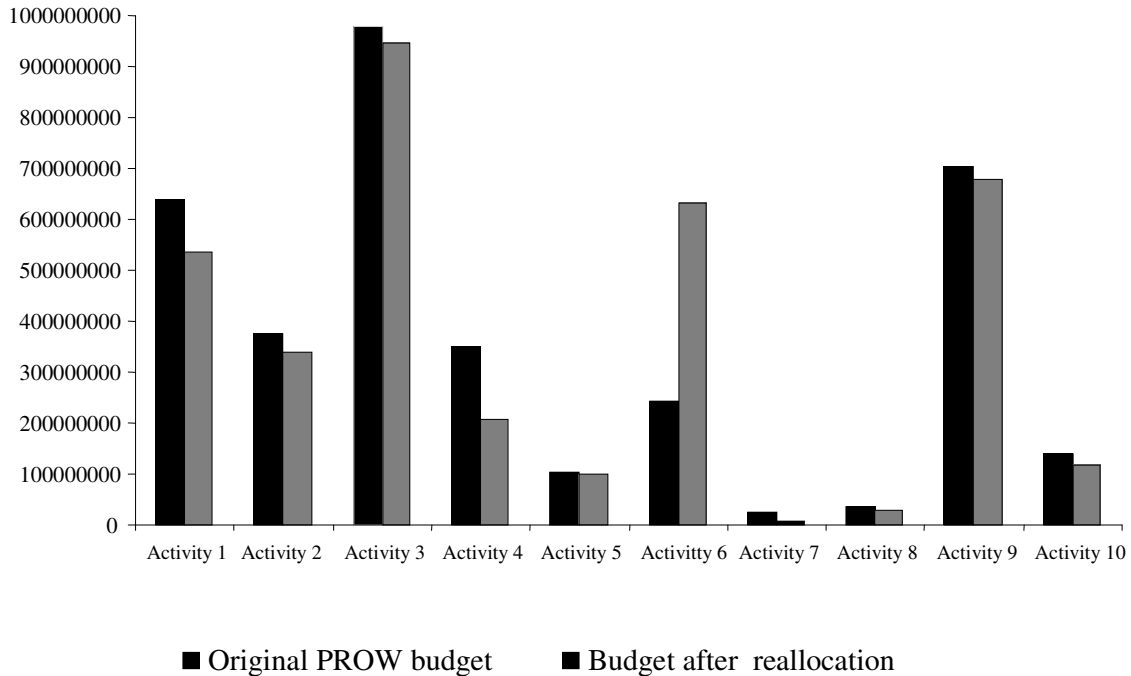
²³ United Nations List of Protected Areas, 2003, IUCN, UNEP- WCMC, Gland-Cambridge

3.1 Implementation of the Common Agriculture Policy in Poland after 2004

By joining EU Poland has taken actions towards improving the competitiveness of the agro–food sector, as well as improving the state of the natural environment and the living standards of rural citizens. Implementation of all actions has been possible by using financial instruments of agricultural and rural policy of the EU, mainly by using European Agriculture Guidance and Guarantee Funds (EAGGF).

Implementing modifications to the agro–food sector towards meeting binding EU standards in the period 2004–2006 has been mostly financed from the Rural Areas Development Program (PROW) and the Sector Operational Program (SPO) “Restructuring and modernization of food sector and rural areas”. The aims of both programs were defined in the National Development Plan as “Improving the competitiveness of agro–food economy” and “Balanced development of rural areas.”

Figure 6 Comparison of the original budget of the PROW 2004-2006 and the budget after reallocation



Source: Preliminary analysis of the implementation of the Rural Development Plan (PROW) for 2004-2006. Part I. MRiRW, Warsaw 2009.

Analysis of the effectiveness of instruments used in the PROW and SPO 2004-2006 for improving the competitiveness of the Polish agri-food sector must be approached very cautiously. First of all, it should be noted that not all instruments classified as pursuing an objective 1, "Improving the competitiveness of the agri-food sector" can actually be regarded as appropriate. Some of them were in fact only a support to operating farms and should be regarded as instruments of social policy. On the other hand some of the instruments eligible for objective 2 "Sustainable rural development" can be regarded as instruments that are more socio-environmental elements since they also take into account ecological and economic conditions. Hence, the most important issue was to introduce more environmentally friendly technologies and management models. The idea was to take greater account of environmental requirements and protection of natural resources found in rural areas. A breakdown of activities according to program documents has been provided in Table 2.

Table 2. Breakdown by objective measures of PROW 2004 – 2006 and SPO

	Objective 1 'Improving the competitiveness of the agri-food economy'	Objective 2 'Sustainable rural development'
Rural Areas Development Program (PROW)	1.1. Early retirement 1.2. Support for semi-subsistence farms 1.3. Groups of agricultural producers	2.1. Supporting agricultural activities in unfavorable farming conditions areas (ONW) 2.2. Supporting agri-environmental projects and animal welfare 2.3. Afforestation of agricultural land 2.4. Adjustment of agricultural holdings to EU standards
	Additional actions 1) Adjustment of agricultural holdings to EU standards 2) Projects under Regulation No 1268/1999 3) Technical support	
Sector Operational Program (SPO) "Restructuring and modernization of food sector and rural areas"	1.1. Investments in agricultural holdings 1.2. Help for young farmers 1.3. Training 1.4. Support for agricultural advisory boards 1.5. Improving processing and marketing of agricultural products	2.1. Restoration of forestry production potential damaged by natural disaster or fire and introducing appropriate prevention instruments 2.2. Reparcelling 2.3. Village renewal and the preservation and protection of cultural heritage 2.4. Diversification of agricultural activities to ensure a diversity of activities or alternative sources of income 2.5. Management of agricultural water resources 2.6. Development and improvement of technical infrastructure related to agriculture 2.7. LEADER + Pilot Programme

Source: Own compilation.

3.2 Objectives and effects of PROW 2004-2006 in terms of improving the competitiveness of the agri-food economy

Early retirement

According to the "Rural Development Plan 2004-2006" this action has the following objectives:

- improving the spatial structure or productivity of agricultural holdings (increasing the average size of the farm in Poland);
- income support to farmers who give up their agricultural activities in pre-retirement age;

- reducing the average age of persons engaged in agricultural work;
- transferring land to non-agricultural land use in areas where agricultural activity does not lead to satisfactory economic results.

From the point of view of improving the spatial structure or productivity of agricultural holdings it was essential to transfer a holding to another farmer or successor to create an enlarged holding. Transmission of a holding to the successor couldn't satisfy the objective as usually a holding was passed to more than one successor what caused further parcellation of the land. On the other hand, it carried out the intermediate (demographic) target – of a change of generations managing the farm.

Based on the adopted criteria of structural pensions usage (early retirement support), the requirements influencing the functioning of the transmitted/newly created holding should be regarded as insufficient. The buyer only had to meet the criterion of agricultural skills and make a declaration of commitment to the business for at least 5 years, which, given the way the requirements are stated, are strongly limited and do not offer any guarantee of better management and greater vitality of the farm. Therefore it would be appropriate to impose an obligation on the purchaser to:

- guarantee proper agricultural activities (e.g. by providing a farm development plan);
- commit not to split the agricultural land into smaller plots for a specified minimum period;
- undertake to run the farm as the primary economic activity of the purchaser.

An important drawback is the lack of regional differentiation of conditions for granting the pension. Only 6-8% of farmers are entitled to apply for early retirement in the provinces of Lesser, Silesia and Podkarpackie, where the area is greatly fragmented. Therefore, requests from farmers from the listed provinces should be treated as priority, or milder requirements should be applied.

Support for semi-subsistence farms

Payments under this action, in the form of premiums paid for up to five years, were paid to an agricultural producer, who:

- is a self-employed agricultural worker on the farm which is owned by him/her;
- had run the farm for 3 years preceding the application for aid;
- had presented a request for assistance, along with the development plan of the holding.

This support was very popular. Despite the stated purposes, for a number of reasons it was arguably the most criticized action of the support instruments used in Poland since:

The adopted thresholds of 2 and 4 European Size Units (ESU)²⁴ were set too low. Currently, holdings with the economic power of 4 ESU do not provide income at an appropriate level.

The Amount of 5878 Polish Zloty (PLN) per year does not allow for major restructuring of the holding. In this context, the aid should rather be treated as a social assistance grant.

Lack of control on the effectiveness of money spending make it possible to fake expenses, such as the purchase of old agricultural machinery.

The criterion of "agricultural activities" that entitles benefit from the support has been recognized through presentation of a certificate from the municipality showing regular agricultural tax payments. However, holders of agricultural land who are not engaged in agricultural activities also pay agricultural taxes, and as such are also eligible to benefit from support under this action.

Groups of agricultural producers

The instrument of support for agricultural producer groups was the only mechanism for directly addressing the need for the development of horizontal and vertical linkages in the Polish agri-food sector. Participation in structured management for producers is a way to reduce the rising production costs that are the effect of legal standards and market requirements on food safety and quality.

In the face of such need, the state of execution of this instrument must be regarded as unsatisfactory. As it turns out, the direct support for the establishment and administration of the group is insufficient. Low popularity of the instrument among farmers was caused mainly by institutional barriers. The reasons for the low popularity of small producer groups included the strong individualism of farmers and their lack of awareness of the benefits of collaborative actions, which resulted in a lack of consensus in the formulation and implementation of common goals.

The problems listed above, and other law matters may be the reason why in the condition of Polish agriculture the forming of agricultural producer groups has probably little chance of becoming popular.

3.3 The objectives of PROW and the effects on sustainable rural development

Supporting agricultural activities in areas of unfavorable farming conditions (ONW):

²⁴ The economic size of farms is expressed in terms of European Size Units (ESU). The value of one ESU is defined as a fixed number of EUR/ECU of Farm Gross Margin. Over time the number of EUR/ECU per ESU has changed to reflect inflation. See http://ec.europa.eu/agriculture/rca/methodology1_en.cfm#pfdfsie

Areas of unfavorable farming conditions (ONW) have been appointed, applying to areas where soil, climate or orography conditions are disadvantageous in terms of efficiency of agricultural production, and instated to equalize opportunities for farmers throughout the country.

In Poland areas of unfavorable farming conditions have been defined as:

- mountain areas where agricultural production is hampered mainly due to adverse climatic conditions and topography. Mountain areas include the municipalities where more than half of the agricultural land is located at an altitude above 500 m above sea level;
- lowland areas with constraints to agricultural productivity associated with poor soil quality, adverse weather, adverse water conditions, inclement relief;

As part of ONW above an amount was paid on the basis of commitment to:

- follow the normal agricultural practice throughout the farm;
- carry on agricultural activities on all parcels located within the ONW for at least 5 years from the date of the first payment for the area under management;
- comply with prohibitions against use of hormonal substances in animal nutrition.

In the areas with unfavourable farming conditions that qualify for payments, area of barren lands has decreased.

Support for agro-environment projects and improvement of animal welfare

The National Agro–Environmental Program (KPR) is another action under the Rural Development Programme. The overriding aim of the KPR is to protect natural resources in the pursuit of farming. Far-reaching intensification of agricultural production leads to a reduction in natural ingredients and the elimination of valuable plant species, environmental pollution, deterioration of soil and water, degradation of agricultural products, and the overall impoverishment of the welfare of nature and the environment. In light of such risks, it was suggested that every farmer should become "the bodyguard of nature". It was stated that a farmer can successfully protect nature within his own farm.

Specific objectives of the KPR include:

- application of environmentally friendly agricultural production systems;
- conservation of semi-natural habitats and biological diversity;
- preservation of native breeds and varieties of plants;
- raising of the environmental awareness of the rural community.

The Agro–environmental program consisted of 7 packets divided into 40 different variants.

The result of the implementation of this action was to support projects in the area of 1 177 245,01ha through:

- using fewer inputs (fertilizers and pesticides);
- reducing leaching and runoff of pollutants to surface waters;
- soil and water protection and maintenance of extensive meadows and pastures in eroded areas;
- reducing the risk of chemical contamination of soils;

As a result of this action the pattern of cultivation which derives benefits for the flora and fauna has been maintained or restored.

Conservation of local breeds of livestock included 15 803 farm animals (including cattle, horses and sheep), which is an opportunity to preserve the old native breeds whose share has been steadily decreasing.

Packages for Natura 2000 sites were implemented on 4.54% of agricultural land while the share of packages outside of these areas represented only 1.13% of agricultural land. On average, only 20% of the area covered by the package of the agri-environmental program was localized in precinct registration where the average parcel did not exceed 0.5 hectares. The spatial distribution of selected packages is often characterized by large dispersion²⁵.

Afforestation of agricultural land

Forests as the most complex terrestrial ecosystems form biocenosis of different plants and animals and have multiple natural and economic functions. A variety of benefits from the existence of forests and their impact on living conditions have caused people to be interested in their condition and in the increase of their spatial area.

The purpose of afforestation of agricultural land in this action was:

- to increase the forested areas according to the National Programme for Increasing of forest cover;
- afforestation of agricultural land with low suitability for agriculture and susceptible to degradation (erosion, exhaustion, the penetration of pollutants into the water);

²⁵ Ewaluacja ex post Planu Rozwoju Obszarów Wiejskich 2004-2006. Raport końcowy.
http://ec.europa.eu/agriculture/rur/countries/pl/ex_post_pl.pdf

- to strengthen the ecological functions of forested areas by restoring old and creating new connections between existing forest complexes, and to maintain animal migration routes and ecological corridors;
- increase the share of forests in the global carbon balance by increasing the chances of absorption of CO₂ by tree vegetation. Afforestation helps to mitigate the "greenhouse effect" responsible for global warming.

The result of the undertaken action was a total area of afforestation of 39 737ha, which accounted for 0.22% of Polish agricultural land.

Afforestation by coniferous species included a total of 22,707.53 hectares and the average size of forested area was 2.65ha. Afforestation by species of deciduous trees covered a total of 17 029.46 hectares and the average size of forested area was 1.95 ha. The highest percentage of forested areas were arable lands (77.86%) and permanent grasslands (22.01%), afforestation of orchards was marginal (0.12%). Farmers who acquire at least 20% of their income from agriculture mostly benefited from the chance of afforestation²⁶.

Adjustment of agricultural holdings to EU standards

The aim was to adjust agricultural holdings to EU standards in the field of environmental protection, public health, and animal health and welfare.

The financial support included three types of investments:

- equipment of holdings in facilities for manure storage (manure pits and tanks for liquid manure and slurry);
- adaptation of dairy farms to EU standards (equipment in milk coolers and a system of water supply for cattle);
- adaptation of laying hen farms to EU standards in terms of animal welfare.

This action attracted great interest from farmers. The realization of the objectives of this activity should be assessed positively. The action was important due to the low level of adaptation of Polish farms to EU standards and the approaching deadline for implementation of principles of cross-compliance, which links the payment of the support with the holdings' fulfillment of the requirements.

3.4 Additional actions in PROW 2004–2006

The PROW also included three other activities:

²⁶ Ewaluacja ex post Planu Rozwoju Obszarów Wiejskich 2004-2006. Raport końcowy.

http://ec.europa.eu/agriculture/rur/countries/pl/ex_post_pl.pdf

- technical support – the aim was to develop training materials and conduct training for farmers, as well as to promote the implementation of the PROW 2004-2006;
- financing of projects submitted to the SAPARD;
- additions to direct payments.

Basic issues in the framework of the technical support consisted of the presentation of the operating conditions of the PROW - forms of payment, and supervision of the program.

Table 3. The budget of the PROW (in EUR) - initially and after reallocation

PROW Action	PROW Budget [EUR]	
	initial	After reallocation
Early retirement	640 500 000	534 739 542,30
Support for semi-subsistence farms	376 300 000	340 559 376,60
Supporting agricultural activities in unfavorable farming conditions areas (ONW)	976 800 000	944 704 686,13
Supporting agri-environmental projects and animal welfare	348 900 000	208 334 142,42
Afforestation of agricultural land	101 800 000	99 985 829,74
Adjustment of agricultural holdings to EU standards	243 400 000	630 945 068,00
Groups of agricultural producers	25 400 000	6 373 266,50
Technical support	34 000 000	29 824 467,58
Additions to direct payments	705 300 000	677 648 837,42
Financing projects submitted to the SAPARD	140 000 000	119 284 783,31
Total	3 592 400 000	3 592 400 000

3.5 Evaluation and effects of the SPO in terms of improvement in the competitiveness of the agro-food sector

Investments in agricultural holdings

In this action public funds were used to co-finance projects related to the modernization of farms and, in further perspective, leading to adaptation of holdings to the conditions on the Market of the European Union. Public funds have been allocated to finance projects aimed at: (1) improving farm conditions, (2) adapting the scale and quality of production to the market needs (3) increasing food security, and (4) improving animal welfare.

Financial assistance could cover costs of:

- construction or modernization of livestock buildings;
- purchase or installation of tools for agricultural production;
- purchase of agricultural land;
- purchase of livestock buildings;

- establishment of orchards or perennial plantations;
- pastures equipment;
- purchase of livestock animals;
- construction, purchase or installation of irrigation systems; and,
- investments for environmental protection.

This action also attracted a great deal of interest from farmers. Most of the projects under the action "Investments in agricultural holdings" referred to the holdings with domination of grain crop production, and breeding of dairy cattle and swine. These production lines dominate in the structure of Polish agriculture.

Mostly owners of farms with acreage over 40 hectares were the beneficiaries of the action.

Help for young farmers

Support under this action was intended to provide funds for young farmers to help them with starting farming activities and for the modernization of holdings.

The criteria adopted for the implementation of this action cannot be evaluated positively. The purpose of the action has not been clearly defined what made it possible to spend a part of a support for goals other than investments. Therefore, the support did not contribute to the modernization and development of farms and did not ensure the sustainability of outcomes. Requirements for the newly formed holdings were also not defined which? led to a lack of control over the development of these farms.

Training

The aim of the action was to popularize training undertaken in the SPO, and opportunities for participation.

The scope of the training included:

- support for the restructuring and modernization of agriculture;
- increasing the competitiveness of the agricultural industry;
- facilitation of young farmers starting out;
- improvement of farm management;
- environmental protection issues;
- improvement of food safety and quality of production;
- improvement of animal welfare;
- dissemination of good agricultural practice information.

As part of the training activities carried out throughout the country, the aims of the action have not only achieved the expected operational objectives, but have also exceeded them. The level of implementation of the objectives in different topics and regions varied. It should be noted that the effectiveness of promotional and restructuring activities in action "training" has varied in different regions and themes. In the opinion of many farmers support provided under the training was an important element in the farm management.

Support for agricultural advisory

The support under this action was aimed at:

- increasing the efficient use of funds intended to promote, restructure and modernize agriculture;
- increasing the competitiveness and profitability of farms;
- environmental protection;
- improving the quality and safety of food production;
- improving of animal welfare;
- dissemination of good agricultural practice information.

As part of the project advisory services for farmers interested in obtaining aid under the CAP, the accompanying instruments of the CAP have been supported. Advice concerned rules and procedures for applying for funding under the CAP (direct payments, all actions of the PROW and SPO).

As a result of the advising on the implementation of the CAP, a significant portion of farmers (about 48%) applied for funding under SPO Agriculture and/or PROW 2004-2006.

Based on opinions of farmers, the advisory services offered through this action were easily accessible. It should be stressed that this action contributed to the positive changes taking place in rural areas. Farmers highly appreciated the services that had been provided free of charge.

Improvement of processing and marketing of agricultural products

The purpose of this activity was to adapt agro-food industry to EU standards in terms of food safety and environmental protection.

This action should be assessed positively. State aid that supported the food industry led to a substantial modernization and increased competitiveness of the sector.

Table 4. Financial Plan for Priority 1 "Support for changes and adjustments in the agro-food sector" (EUR)

Activity	EFOiGR ²⁷	National funding	Self financing
1.1	325 189 238	278 733 633	325 189 238
1.2	130 000 000	43 333 333	-
1.3	16 000 000	4 000 000	-
1.4	43 000 000	10 750 000	-
1.5	325 000 000	139 285 714	464 285 714
Total	839 189 238	476 102 680	789 474 952

Source: Completion of the Sectoral Operational Programme "Restructuring and Modernisation of the Food Sector and Rural Development 2004-2006", Financial Table, pp. 142 - 1453.6 Evaluation and effects of the SPO in terms of sustainable rural development

Considering the economic and environmental functions of forests, as well as losses caused by hurricanes and other disasters, the action was referred to protect degraded forests. The action is a part of the EU's priorities in the field of environmental protection and conservation of natural habitats. The purpose of the activity was to rebuild the economic, ecological and social functions of forest areas destroyed by natural disasters or fires.

Reparcelling

Under the SPO categories, land consolidation aims to improve land distribution of individual holdings in areas characterized by high dispersion and fragmentation of land. A defective spatial structure of farms is an obstacle to the modernization of agricultural production and for adaptation to changing natural conditions, which consequently reduces farm competitiveness.

In 2004-2006, this action attracted little attention from farmers.

Village renewal and the preservation and protection of cultural heritage

The projects under the action were aimed at:

- improving the standard of living and working in rural areas;
- increasing the tourist attractiveness of the area;
- increasing the investment attractiveness of the area;

This action has ensured the chance to implement projects in the rural and urban-rural areas. 1,199 municipalities (55.2% of all eligible) took part in the program.

Currently, the Rural Development Programme 2007-2013 (PROW 2007-2013) has been continued under the name "Village renewal and development".

²⁷ European Agricultural Guidance and Guarantee Fund

Diversification of agricultural activities to ensure a diversity of activities or alternative sources of income

The purpose of this activity was to stimulate the development of alternative sources of income. The action is very important due to the fact that surplus labor and limited employment opportunities in rural areas are some of the biggest problems in the country.

Management of agricultural water resources

The purpose of this activity was to improve the effectiveness and efficiency of agricultural operations and to protect agricultural land against flooding by regulating water relations. Limited financial capacity of rural areas, due to insufficient income from agricultural activities and difficulties in attracting private investments, inhibit the realization of such investments. The action allowed for the construction or renovation of drainage devices in areas where the involvement of private funds was not possible because of the lack of prospects for direct income.

Development and improvement of technical infrastructure related to agriculture

The purpose of this activity was to:

- improve technical infrastructure;
- protect and improve the state of the environment;
- improve sanitary conditions in rural areas;
- increase the income of holdings;
- improve the organization of agricultural production; and,
- LIDER+ Pilot Program

The support that has been provided aimed at stimulating local communities to be involved in the process of developing the area. The action supports the creation of social institutions in rural areas, the EU experience shows that the Leader can be an effective tool in stimulation of local communities. Moreover, the Local Action Groups play an important role in promoting standards of environmental protection, prevention of social exclusion and job creation in rural areas. Actions taken by local communities have also contributed to enhancing regional, national and European economic and social cohesion.

A serious problem in implementation of the project is the financial capacity of rural municipalities.

Table 5. Financial Plan of Priority 2 "Sustainable Rural Development" (in EUR)

Activity	EFOiGR ²⁸	National funding	Self financing
2.1	10 000 000	2 500 000	-
2.2	17 000 000	4 250 000	-
2.3	90 000 000	22 500 000	-
2.4	75 000 000	32 142 957	107 142 857
2.5	100 000 000	32 000 000	8 000 000
2.6	28 500 000	12 214 286	40 714 286
2.7	15 000 000	3 750 000	-
Total	335 500 000	109 357 143	155 857 143

Source: Completion of the Sectoral Operational Programme "Restructuring and Modernisation of the Food Sector and Rural Development 2004-2006", Financial Table, pp. 142 - 145

3.7 Rural Development Program (PROW) 2007-2013

Basic assumptions, as well as the scope, objectives and actions of the Program have been selected on the basis of Council Regulation (EC) on support for rural development from the European Agricultural Fund for Rural Development. The PROW 2007–2013 has been constructed with respect to the experiences arising from the implementation of the Rural Development Plan for the period 2004-2006 and the Sector Operational Program "Restructuring and modernization of food sector and rural development for the years 2004 to 2006".

Tasks under Axis 1 - Improving the competitiveness of agricultural and forestry sector

- Training for persons employed in agriculture and forestry;
- Help for young farmers;
- Early retirement;
- Use of advisory services by farmers and forest holders;
- Modernisation of agricultural holdings;
- Increase of the added value of agricultural production and forestry;
- Improving and developing the infrastructure related to the development and adaptation of agriculture and forestry;
- Participation of farmers in food quality schemes;
- Information and promotion activities; and,
- Groups of agricultural producers.

²⁸ European Agricultural Guidance and Guarantee Fund

Tasks under Axis 2 - Improving the environment and rural areas

- Support for farming in mountain and unfavorable farming conditions areas (ONW);
- Agro-Environmental Program;
- Afforestation of agricultural and non-agricultural land;
- Recreation of forestry production potential on forests damaged by disasters, and introduction of prevention instruments.

Tasks under Axis 3 - Quality of life in rural areas and diversification of the rural economy

- Diversification towards non-agricultural activities;
- Creation and development of small business;
- Basic services for the rural economy and population;
- Village renewal and development.

Tasks under Axis 4 – Leader

- Implementation of local development strategies;
- Implementation of cooperative Project;
- The functioning of the local action group, skills acquisition and animation.

On the one hand, the budget for years 2007-2013 reflects the continuation of the EU policy, on the other hand, new goals in coherence policy have been created. The implementation of the second stage of the PROW (2007-2013) in Poland will cost over EUR17.2 billion of public funds (over three quarters of the sum will be covered from the Community budget) (Table 6).

Table 6. Financial plan of the PROW 2007 -2013 (in EUR)

Axis	Public funds ¹
Axis 1	7 187 532 000
Axis 2	5 546 001 520
Axis 3	3 430 183 920
Axis 4	787 500 000
Technical support	266 600 000
Total	17 217 817 440

¹Sum of national and European funds

Considering the share of funds between priority axes, it can be concluded that the program is balanced, and not explicitly directed to one of them (Figure 6). More than 40% of funds have been spent on activities enhancing the competitiveness, a further 30% has been

used for activities related to the environment, and less than 20% to improve the quality of life in rural areas.

During the campaign in 2010 within the agri-environmental program farmers have submitted 36 076 applications to the District Offices of Agency of Restructuring and Modernisation of Agriculture for the follow-up environmental payments (Table 7). The most popular among the beneficiaries was the third package ‘Extensive permanent grassland’, as 19 952 applications have been submitted. Another popular package was Package 8 ‘Soil and water protection’, whereby 15 568 applications have been submitted. 36 076 applications were submitted by farmers applying for the first time for the payment (Table 7).

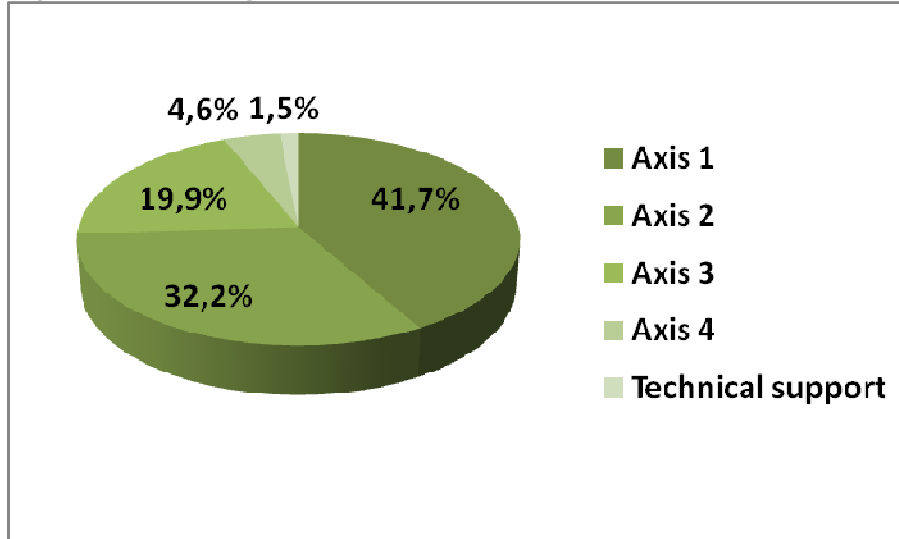
Table 7. Number of follow-up applications and new applications submitted, the amount claimed and the number of packages executed within a campaign in 2010, cumulatively.

	Number of new packages in complex applications								
	Sustainable Agriculture	Organic farming	Extensive permanent grassland	Protection of endangered bird species and habitats outside Natura 2000	Protection of endangered bird species and habitats in Natura 2000 sites	Conservation of endangered plant genetic resources in agriculture	Conservation of endangered animal genetic resources in agriculture	Soil and water protection	Buffer zones
	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9
Follow-up conclusions	6 488	8 920	19 952	825	1 017	1 320	1 543	15 568	104
New applications	6 578	6 666	14 713	759	922	579	613	13 177	22

Source of data: data gathered from the Offices of County ARiMR

In the programming period 2007-2013 not all the instruments assigned to the Axis 1 "Improving the competitiveness of agriculture and forestry" could be regarded as fulfilling this goal. In fact, some of them have only an assisting role in farm activities and should be considered rather as instruments of social policy.

Figure 7. Percentage distribution of PROW 2007 – 2013 funds



4. Implementing agencies

Units and organizations involved in the implementation of action programs:

- Farmers
- Regional centers of agricultural advisory (WODR)
- regional advisory centers of agriculture development and rural development (RCDRRiOW)
- National Chemical and Agricultural Station (KSCH-R)
- Regional Chemical and Agricultural Station (SCH-R)
- Chief Inspectorate for Environmental Protection
- provincial environmental protection inspectorates (WIOŚ)
- units of local government administration of all levels, including municipal level
- provincial funds for environmental protection (WFOŚ)
- Agency for Restructuring and Modernisation of Agriculture (ARiMR)
- Regional Water Management Boards (RZGW)
- institutes and agencies subordinate to the Ministry of the Environment (MŚ) and the Ministry of Agriculture and Rural Development (MRiRW)
- Provincial Land Reclamation Boards;
- Unions and agricultural associations;
- Chosen independent ecological organizations (Institute for Sustainable Development, the National Society for the Protection of Birds, Polish Ecological Club (Cracow), Polish Society for Nature Protection "Salamandra", Nature Society "Stork", WWF Poland, the National Council for Nature Conservation).

5. Implementability issues

Problems with the implementation of the Water Framework Directive (WFD) in Poland

The most significant problems that arose during the implementation of the WFD in Poland were:

- lack of sufficient data (eg. biological testing of water) to establish a typology of water so they regarded as preliminary;
- lack of sufficient data to fully assess the impact on individual water bodies;
- lack of staff implementing tasks of the WFD;
- organizational financial and legal problems.
- Poland has been working hard to resolve the existing problems related to implementation of the WFD. The strategy for resolving the problems connected with the implementation of the WFD is based on the strategy of water management in Poland via its organizational, financial and legal resolutions:
 - organizational arrangements - 4 variants from which only one can be chosen after consultations and arrangements;
 - financial arrangements - providing increased funding for the implementation of the WFD by increasing the budget as a result of improved organization;
 - legal arrangements - amendment of the *Water Law Act*, which is currently in the final stage.

5.1 Problems in the first stage of the Nitrates Directive implementation

At the stage of ‘action plan implementation’, the first stage of the Nitrates Directive implementation, many obstacles appeared. It seems that these obstacles were the effect of imprecise defining of the frameworks of each implementing institution. Designation of vulnerable areas and developing of the action plans aimed at improvement of water quality (mainly through improving farming practices) were the responsibility of the Ministry of the Environment, whilst the execution of the tasks specified in the programs mostly concerned the agricultural sector. As in the initial stage of implementation of the WFD a deal between environment and agriculture sectors has not been achieved, also the technical and financial responsibility for implementing the action plans has not been precisely defined and divided between the environment and agriculture ministries. The result of this situation was the lack of budgetary resources to ensure the implementation of tasks by individual institutions. Lack

of funds and staff shortages have limited the possibility to fulfill activities such as farmer control.²⁹

Also, a lack of guidelines on cooperation between institutions caused problems with data retrieval. For instance, the inability to obtain data from the Agency for Restructuring and Modernisation of Agriculture (ARiMR) has caused the need to obtain information directly from farmers, despite the fact that this process was very expensive and the quality of this type of data was significantly lower. The problem of data sharing had appeared earlier during the identification of sensitive water bodies and OSNs. While RZGWs have direct access to data from the water monitoring database, the range of useful data on the state of agriculture that is very limited.

Another issue relevant to the obligations contained in the action programs was the way they are expressed. The problem in this area was excessive formalization of the Nitrates Directive implementation process. Program enrollments were imposed by the *Decree of the Minister of Environment of 23 December 2002* on the detailed requirements to be met by action programs aimed at reducing nitrogen runoff from agricultural sources [2002] and the "exemplary program"³⁰ developed in 2003. As these documents had been prepared before the PROW 2004–2006 had been approved, a legal conflict has occurred and prevented farmers from OSN areas from gaining support from the agro–environmental program. This can be seen as the suffering of financial losses for farmers in the OSN areas. It is even more serious since farms from OSN areas can be less competitive than farms elsewhere. Moreover, a transitional period to adapt to the requirements of the environmental protection program has not been planned.

During implementation of action programs organizational problems have appeared. For example, farmers as well as municipal offices and ARiMR have faced problems with identifying the location of plots and farms in the OSNs. This was particularly important as the information on the location of a property in the OSN could influence the decision about the

²⁹ Nagrabska J., Pastuszczak K. 2009. Problemy związane z wdrażaniem programów działań na obszarach szczególnie narażonych na zanieczyszczenie związkami azotu ze źródeł rolniczych (OSN) w Wielkopolsce. *Woda-Środowisko-Obszary Wiejskie*. t. 9 z. 1 (25) s. 49–60.

³⁰ Rotowska A., 2003. *Wzorcowy Program działań dla obszarów szczególnie narażonych na azotany pochodzenia rolniczego z uwzględnieniem specyfiki regionów Polski i występujących problemów rolnośrodowiskowych*. Warszawa: MŚ.

granting of a specific payment. Another problem was the very extensive documentation requirements in the guidelines for reporting program results.³¹

5.2 Problems in the current cycle of implementing the Nitrates Directive

Despite attempts to remove obstacles in the implementation of action programs it was impossible to avoid all the problems that might impede the achievement of the objectives, ie. reducing nitrogen emissions from agricultural sources. Problems that are beyond the competence of the regional water management boards are detailed below:

Farmers from areas vulnerable to nitrate pollution were required to have facilities for collection and storage of manure fertilizer for at least 6 months. This is one of the most fundamental and expensive activities. According to information provided by the ARiMR farmers, areas that are particularly vulnerable to the pollution cannot count on financial support for the construction of manure and slurry tanks, since the last call for proposals took place in November 2007 and a new call for proposals has not been taken into consideration in the activity “Modernization of agricultural holdings in PROW 2007-2013”.³² Removal of such financial support to farmers will result in they will not be able to comply with the obligations imposed on them by the action programs requirements. In this situation, a good solution would be to treat the farmers from the OSNs at least on an equal basis with others, and to enable them to submit proposals for the next vacancy. It is proposed to re-consider the call for proposals for the construction of panels and tanks. Also other funding sources should be defined to provide support for actions carried out in areas where water bodies are vulnerable to pollution.

*Law on fertilizers and fertilization*³³ abolished the mandatory requirement to store manure on concrete board by all farmers regardless of the size of the household. A new deadline for mandatory construction of manure tanks for collection and storage for more than four months has been defined on 14 January 2011. Therefore, farmers from OSNs defined in 2008 will be forced to face a particularly disadvantageous situation, as previously they were not required to have facilities to store manure for 6 months as well as farmers in OSNs, who did not have time to build these facilities during the action plans for 2004-2008. Also, the case of farmers who have built CDs and tanks in accordance with the pre-existing rules has not

³¹ Nagrabska J., Pastuszczak K. 2009. Problemy związane z wdrażaniem programów działań na obszarach szczególnie narażonych na zanieczyszczenie związkami azotu ze źródeł rolniczych (OSN) w Wielkopolsce. Woda-Środowisko-Obszary Wiejskie. t. 9 z. 1 (25) s. 49–60

³² Program rozwoju obszarów wiejskich na lata 2007–2013, 2007. Warszawa: MRiRW

³³ Ustawa z dnia 10 lipca 2007 r. o nawozach i nawożeniu, 2007. Dz. U. z 2007 r. nr 147, poz. 1033.

been resolved. Taking into consideration high costs of construction, for farmers from OSNs defined in 2008 it is difficult to comply with the new rules, especially in the situation when no additional support is provided. It seems necessary to take into account the transition period for farmers from areas vulnerable to nitrate pollution to adapt the equipment of their holdings to the existing regulations. The programs scheduled by the directors of RZGWs did not determine a deadline for the construction of manure and slurry tanks.

Other problems are the restrictions that farmers from OSNs face while using the packages of the “Agro–environmental Program”. According to § 11 of the “detailed conditions and procedures for granting financial support within the framework of agro–environmental program under Rural Development Program 2007-2013”, “Agro–environmental payments cannot be granted for the implementation of agro–environmental commitments for specific packages or options if the requirements of these packages or options are subject to action programs aimed at reducing nitrogen runoff from agricultural sources in areas particularly vulnerable to pollution from nitrogen compounds”. Limiting farmers` financial opportunities certainly does not motivate them to carry out agricultural activities in accordance with the requirements of the action plans. In the PROW 2007-2013 not only the "agro-environmental program" has been taken into consideration but also the "Water and Environmental Program", which aimed at improving water quality. The range of packages and requirements will be determined after completion of the development of management plans for river basins. This range will be a potential source of finance for farmers obliged to fulfill requirements of the Nitrates Directive, so it is important to make efforts to make the “Water and Environmental Program” effective. It seems that for farmers from OSNs the chance of using the package "sustainable agriculture" would arise only in case of changing the *Regulation of the Minister of Environment of 23 December 2002* on the detailed requirements to be met by action programs aimed at reducing nitrogen runoff from agricultural sources”³⁴ in terms of the requirements of the fertilization plan.

The need to provide priority assistance concerns farmers from OSNs as well as the institutions cooperating with them. Institutions included in the action programs declare their willingness to cooperate, but indicate a risk of failure of all plans due to limited possibilities for raising funds for the implementation of tasks and staff shortages.

³⁴ Rozporządzenie Ministra Środowiska z dnia 23 grudnia 2002 r. w sprawie szczegółowych wymagań, jakim powinny odpowiadać programy działań mających na celu ograniczenie odpływu azotu ze źródeł rolniczych, 2002b. Dz. U. z 2003 r. nr 4, poz. 44

The demand of following nitrogen balance records is hard to fulfill, especially in small holdings. Farmers are not in the habit of listing all the agricultural practices that they have conducted. To teach farmers about the agricultural economy with a 'pencil in hand' takes time and it is necessary to change their mentality.

Farmers are aware that pollution does not necessarily come from their current activities, or even ignore results showing high concentrations of nitrates in the wells from where they get water to drink.

There is a lack of staff with good preparation for teaching. Teachers, even those with outstanding scientific achievements, are not always able to present the problem of water pollution in a way that cuts straight to the listener.

Another extremely important issue is to allow access to the data collected under the Integrated Administration and Control System (IACS). There is also a concern that the data reported by RZGW/KZGW/MS and which has been obtained directly from farms may not be consistent with the data stored in the IACS. This issue requires legislative changes, because the statute does not provide for the possibility of sharing the data stored in the IACS. Legal solutions that provide support for the programs concerning the OSNs should be implemented.

5.3 Problems in the implementation of the Habitats Directive

Implementation of the Habitats Directive in Poland raised a number of discussions and concerns. The *Law of the Nature Protection* concerns nature protection only in national parks, nature reserves, landscape parks and protected landscape areas. The work carried out in terms of Natura 2000 has not yet been fulfilled. It turned out that many of the proposed Natura 2000 special bird protection areas (SPAs) do not have sufficient documentation of the natural environment, and it is necessary to supplement it.

Present state of knowledge of Polish nature in certain areas is still far from perfect. It has resulted in the situation whereby some of the areas have been eliminated due to the lack of data concerning species and habitats.

Works on the "Atlas of the distribution of plants in Poland" have recently started to allow for better recognition of the actual occurrence and the distribution of numerous plant associations. It should be emphasized that these programs do not have, and will not have, legal force, but they will have a supportive role to the Natura 2000. It is also necessary to carry on research that will allow the development of methods for the effective protection of endangered habitats with special respect to different types of peatlands.

5.4 Summary of the PROW and SPO 2004- 2006

The analysis of the PROW and SPO allowed formulation of an assessment of their implementation. After closing the next stage of integration with the EU (pre-accession period – Social Accession Programme for Agriculture and Rural Development, the accession of the first period 2004-2006), Polish agriculture has not developed a mechanism for permanent structural changes. A coordinated set of activities aimed towards farmers who have used one of the offered instruments would encourage him/her to take the next, which would ensure the viability of the farm. The present National Strategic Plan (KPS) sets out a strategy to support the development of Polish rural areas in the current programming period as well as in the PROW 2007–2013. However, it should be kept in mind this KPS can only use the experiences from the PROW 2004–2006 to a limited level, due to a postponement in the effects of the previous actions. For this reason, the starting point of the KPS development was based on knowledge about agriculture and rural areas that existed before the appearance of effects associated with the programming period 2004-2006.

Interviews with employees of the Advisory Center for Agriculture and Rural Development (ODR) in Karniowice allow the authors to conclude that the implementation of the PROW action "Support for agro-environmental projects for improving animal welfare" was viewed positively by farmers. The chance of obtaining financial support was the additional incentive for implementation of organic farming techniques, which can be confirmed by the steady increase in the number of organic farms in Malopolska³⁵.

The second popular package of the “Agro–environmental Program” was “Water and Soil Protection”, the reason being that this package is the easiest to implement. The farmers who gained the most were the ones who have already used technique of underplant crops or intercrops.

The package ”Creation of buffer zones” was not very popular due to its high requirements. Probably in particular the reason was the low-rate subsidies - 0, 18 PLN to 0, 64 PLN/meter of the buffer zone.

Regarding the implementation of the PROW 2007-2013 in the areas of Podlaskie province farmers were interested mainly in the actions of Axes 1 and 2. Under Axis 1 actions 1.5. "Modernization of agricultural holdings" and 1.8. "Participation of farmers in food quality schemes" were the most popular.

³⁵ Personal communication

Under Axis 2 very popular actions are 2.1. "Support for management in areas of unfavorable farming conditions", 2.2. "The Agro–environmental Program" and 2.3. "Afforestation of agricultural and non-agricultural land".

Action 3.1. "Diversification in directions non-agricultural activities" was the most popular in Axis 3.

An interview with an employee of ARiMR revealed that among the farms that have been inspected (in accordance with the guidelines) only a few percent (3-5%) did not fulfill the commitments undertaken by the beneficiaries and only 1% of farmers did not follow the recommendations given during the first control. Failure in fulfilling the recommendations according to the principles of the PROW resulted in penalties.