Common Agricultural Policy instruments as factors of environmental sustainable development of Polish agriculture

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Abstract: The Paper’s goal is the identification of the Common Agricultural Policy (CAP) instruments as factors influencing environmental sustainable development of Polish agriculture. These instruments were assessed in the light of the way in which agricultural and environmental policies are projected and introduced. Direct payments - on one hand - contribute to intensification of agriculture (causing negative environmental externalities). On the other hand, they are important factors of maintenance of extensive farms in other regions (enabling environmental services delivery). The environmental impact of the CAP is strictly associated with cross-compliance. However, Polish authorities did not implement many important standards (regarding water protection, biodiversity and soil conservation). The agri-environmental programme is a factor with a strong positive impact on sustainable development. However, in Poland, its effectiveness of its financing is relatively low – especially in comparison to the main groups of the EU member states. Other CAP instruments with potential positive influence on sustainable development (supporting the development of less favourable areas, afforestation programmes) were insufficiently directed to stimulate supply of environmental services.

Keywords: sustainable agriculture, rural development, sustainable agriculture development, environment protection in agriculture, rural development measures, agri-environmental programme

1. Introduction

Poland’s accession to the European Union (EU) fundamentally changed the conditions of Polish agriculture development. This primarily resulted from the implementation of instruments included in the Common Agriculture Policy (CAP). The Paper’s goal is the identification of the instruments which influence sustainable development (SD) of Polish agriculture. While they are rather external factors imposed by the EU, they can be implemented in different ways and
directions in particular Member States. Consequently, their results depend on the way in which Polish domestic rural policy is being carried out. In other words, their influence on sustainable development is conditioned by internal institutional and political factors. To assess the effectiveness of implementation of discussed measures, the Author used descriptive and comparative analysis referring to the absorption of financial support in Poland and in the main groups of the EU member states – the group of countries which joined the EU before 2004 – so called EU 15 – and the group of countries which became member states after this date (but before 2007) – the so called the EU 10. In the study, the author used such sources of information as: EU and Polish official documents and regulations connected with environmental and agricultural policies, data published by Eurostat and Central Statistical Office.

The analysis is concentrated on instruments in the CAP pillar I (direct payments combined with cross-compliance rules) and on the pillar II measures which are directly connected with environmental protection - agri-environmental programmes (AEP), afforestation of agricultural land and the support for Less Favourite Areas (LFA). There are many other II pillar measures which are being implemented in Poland (for example, support for semi-subsistence farms, support for young farmers, support for agricultural producers’ groups) but they do not directly influence the environment. The only one of these measures which was taken into account was the early retirement of farmers as this influences the absorption of environmental measures within the pillar II. The main criterion which enabled the identification of these instruments as factors of sustainable development was their influence on environmental external effects. The analysis concentrated on environmental sustainability issues - socioeconomic consequences of discussed measures have not been taken into account.

2. CAP instruments in the context of agricultural externalities

The CAP instruments can stimulate both opportunities and threats to development. This depends on the direction and degree of implementation, as well on their foreseen/observed externalities. Consequently, according to the Author, to identify the influence of discussed measures on SD the six following variants could be considered:
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- strongly positive impact – when the instrument generates some external benefits and at the same time causes external costs reduction,
- strongly negative impact - external costs are increasing while simultaneously external benefits are being reduced,
- positive impact (regarding external benefits) – when the instrument stimulates external benefits but does not affect the external costs,
- positive impact (regarding external costs) – when the instrument generates external costs but does not affect the external benefits,
- negative impact (regarding external benefits) – a measure may reduce external benefits but has no influence on external costs,
- negative impact (regarding external costs) – a measure may generate external costs but has no influence on external benefits.

The identification of selected CAP instruments as opportunities and threats to SD is presented in Tables 1 and 2. Direct payments, as the most important I pillar instrument, provide additional revenues for farmers and allow for using more external inputs, including mineral fertilizers and plant protection products. Thus, they tend to stimulate the intensification of agriculture and increase of external costs. However, they also contribute to external benefits.

Table 1 summarizes the opportunities and threats arising from the application of the Single Area Payments System (SAPS) due to the fact that it has been implemented in Poland. It is close to regional system of direct payments (Single Payment Scheme – SPS) which is relatively favourable regarding the environment in comparison to the Single Farm System (SFP). In the regional system the payment rate does not depend on the volume of production in particular farm (reference yield), so for its owner it is beneficial to declare the part of land which is not directly used in agricultural production as the basis for payments calculation. The area can include permanent pastures and meadows or other valuable elements of nature, so the subsidies are suitable for extensive farms. In the SFP the part of the area, which does not contribute to production increase compared to the reference yield (i.e., the yield obtained in a base year) is not declared for payments (it would decrease the average payment rate per hectare). Consequently, payments practically do not cover “non-productive” green areas, so there are weak incentives for

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1 The EU member states can choose and introduce one of these systems. The EU 10 consists of countries which became the EU member states in years 2004-2006. These countries had to implement SAPS.
their maintenance. Furthermore, SFP stimulates the intensification of agriculture - farmers tend to increase the yield per hectare using more fertilizers and pesticides (Alliance Environment, 2007a).

Table 1 Opportunities and threats for SD connected with the implementation of CAP direct payments – ecological dimension

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
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<tbody>
<tr>
<td>Slowing down the liquidation of extensive farms² (which could occur as a result of foreign competitive pressure which would be intensified without subsidies).</td>
<td>Increased intensification of agriculture, which contributes to:</td>
</tr>
<tr>
<td>It prevents from:</td>
<td>- growing environmental pressure of agriculture (water pollution, soil contamination, GHG emission, rural amenities degradation), ec↑(+++),</td>
</tr>
<tr>
<td>- environmental damage, which may result from the lack of agricultural land and rural landscape maintenance ec↓(→), and favors:</td>
<td>- limited provision of agricultural public goods eb↓(→),</td>
</tr>
<tr>
<td>- limitation of farmers' possibilities to provide public goods (connected with nature and soil conservation) eb↑(++) , and favors:</td>
<td>- increase of concentration and specialization of production ec↑(→),</td>
</tr>
<tr>
<td>- maintenance of permanent pastures and meadows (in practice, the impact depends on the implementation of the relevant standards in cross-compliance³), eb↑(+), ec↑(→),</td>
<td>- limitation of extensive agricultural production as a result of an intensified competitive pressure (discrimination of organic and HNV⁴ farms) eb↓(→), ec↓(+).</td>
</tr>
<tr>
<td>- participation in the II pillar – indirect impact on eb↑(+) , and favors:</td>
<td></td>
</tr>
<tr>
<td>- implementation of environmental requirements within cross-compliance ec↓(→).</td>
<td></td>
</tr>
</tbody>
</table>

* ec means external costs, eb means external benefits. The Symbol "↑" means increase of ec or eb and "↓" means decrease of ec or eb. The number of characters (+) informs about intensity of positive effect. The number of characters (-) informs about intensity of negative effect.


It can be argued that subsidies within SAPS both stimulate negative and positive externalities, however such impact could take place in different ways, aspects and in different

² According to Eurostat’s classification there are extensive farms (spending less than 125 euro/ha), medium intensity farms (125–295 euro/ha) and high intensity farms (spending more than 295 euro/ha) in the EU. The process of intensification can be defined as an increase of the share of utilised agricultural areas (UAA) managed by high-intensity farms and/or a decrease of the share managed by extensive farms. The process is combined with growing negative pressure on environment. Extensification is characterised by a decrease in the former and/or an increase in the latter (Eurostat, 2010: 133). Due to effects presented in Table 1, the process is assessed as favourable to the environment. According to European Commission, “the extensive character of agriculture is evaluated by measuring the share of agricultural area utilised for extensive arable crops and for extensive grazing. Extensive means a cereals yield below 60% of the EU average of 4.9 tonnes/ha and a stocking density not exceeding 1 livestock unit per ha of forage area (European Union DG Agri, 2010: 145).”

³ The cross-compliance standards involve many environmental requirements and must be met by recipients of the CAP payments.

⁴ HNV (High Nature Value) areas are defined as such, in which agriculture is the main way of land use and - at the same time – where three basic features should be met in three types of classified HNV categories: areas with specific rural landscape and with a high proportion of semi-natural vegetation (meadows, pastures, woodlands, bushes, marginal farmlands, water bodies, hedges), areas with many farms conducting extensive agricultural production (including breeding), agricultural areas favourable for diversity of animal and plant habitats (Beaufoy and Cooper, 2009).
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areas. For example, affecting the transformation of extensive holdings into intense ones, payments could restrict the provision of public goods in a particular area and, at the same time, they could contribute to the maintenance of extensive farming in another place. It is worth noting, that some of these impacts can be worsened and/or weakened when the payments rates are increased or decreased. The excessive growth of payments rates may lead to a reduction of opportunities ($eb$ decrease) and increasing threats for SD ($ec$ increase). At the same time, payments do not affect the positive consequences associated with extensive production. These effects would be particularly severe in case of simultaneous reduction of pillar II. With a given allocation for the CAP, increase in the funds for one group (pillar I) displaces expenditures for other instruments (crowding out).

Taking into account all the increases and decreases of $ec$ along with their severity, it can be concluded that direct payments (in the SAPS) have a negative impact on SD as they generate costs. Only in the case there is a balance of increases and decreases of $eb$, the impact is neutral. Nevertheless, it should be noted, that the analysis refers to Polish agriculture in a situation, in which the starting point is a lack of payments. Before accession, agriculture was not subject to this type of support and was not subject to such a strong competitive pressures as nowadays on the Single European Market. Different consequences (than presented in Table 1) would arise in a scenario in which the starting point is the current situation with the hypothetic elimination of direct payments. Under conditions of agricultural policy liberalisation and full opening to international competition (mostly from non-EU countries), the incentive to intensify production of would be much stronger than nowadays. The limitation of external benefits and increases in external costs could be so severe that the balance of $ec$ and $eb$ would become negative - especially in situation when direct payments would be applied in other EU countries. The most preferred option is the SAPS use, but supplemented with cross-compliance standards and wide implementation of pillar II measures. Thanks to cross-compliance, the implementation of the CAP instruments is linked to administrative/legal environmental protection requirements. They are directly aimed at reduction of negative agricultural pressure on the environment (and thus they contribute to the internalisation of externalities), so they may have a strongly positive effect on SD in the environmental dimension. However, the impact - in practice - depends on the scope and direction of their implementation in the member states (transposition of the EU law and the effectiveness of involved institutions).
In the context of the value of financial support, the most important II pillar measure is the AEP (this is explained later in this paper). The instrument causes the reduction of external environmental costs, because farmers should fulfil basic environmental standards (usually more restrict compared to cross-compliance). At the same time farmers are granted the subsidies for services delivering external environmental benefits connected with extensive production methods (see Table 2). Studies have shown that in practice, the AEP contributes to an improvement of life conditions of fauna and flora wild species (European Commission, 2005). This is due to lower consumption of plant protection products as well as preservation of permanent grasslands. In the case of the other instruments, the impact on externalities is not so clear. According to previously presented criteria, the support for LFA exerts a positive influence on SD, however, with a reduced severity than the AEP (less benefits and limited reduction of environmental costs). When considering errors in practical implementation at the national or regional level, even negative impact may be found (Kociszewski, 2013):

- in some cases, the instrument supports industrial agriculture,
- the criteria which have to be met by beneficiaries are often inaccurate regarding to the natural handicap (e.g., difficult climatic conditions, steep mountain areas, poor soil quality (see Rozporządzenie 1698/2005/WE) in rural areas. Furthermore, they are differentiated in particular member states.

The ultimate impact of the LFA on SD depends on practical implementation. The allocation for afforestation of agricultural land is much smaller than for other discussed measures (Figures 1 and 2). At the same time, it is an instrument causing more complex effects than other discussed measures (Table 2). Putting together all the increases and decreases of eb, it can be concluded that its influence on SD is definitely beneficial. However, the balance of increases and decreases of ec indicates the opposite impact. Finally, it can be concluded that the overall afforestation programme’s impact on SD is positive, but its implementation should be conditioned by the rules minimizing negative effects (including the appropriate selection of species and places subjected to afforestation).

Taking into account the presented findings, it may be concluded that the right direction of domestic rural policy (in the context of SD) is the use of the AEP in a range as wide as possible.

5 Farmers deliver additional services favourable for biodiversity (e.g., special Natura 2000 packages, changes in seasons of grasslands swath in a way to be suitable for bird breeding periods), for maintenance of rare farm animals (e.g., local breeds of cattle and plant species) as well as for landscape or soil conservation.
In the pillar I key instruments are the cross-compliance standards. The implementation of these measures is described in the further part of the paper.

### Table 2 Opportunities and threats for SD connected with chosen pillar II measures - environmental dimension

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
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</table>
| Agri-environmental programme    | the implementation of basic environmental requirements for farmers,  $ec \downarrow(-)$  
                               | dynamic development of organic farming,  $eb \uparrow(++)$,  $ec \downarrow(-)$  
                               | preserving/increasing of the rural amenities  $eb \uparrow(+)$,  $ec \downarrow(-)$  
                               | reduction of environmental pressure of agriculture,  $ec \downarrow(-)$  
                               | limiting increase in concentration and specialization of production,  $ec \downarrow(-)$  
                               | maintenance/strengthening natural elements increasing the capacity of environment (ability to absorb pollution),  $ec \downarrow(-)$,  $eb \uparrow(+)\ast$  
                               | maintenance of permanent pastures and meadows,  $eb \uparrow(++)$,  $ec \downarrow(-)$  
                               | the mitigation of climate change,  $eb \uparrow(+)$  
                               | maintenance of HNV farming,  $eb \uparrow(+)$  
                               | maintenance of soil fertility,  $eb \uparrow(+)$  
                               | contribution to multifunctional agricultural development,  $eb \uparrow(+)$  
                               | a secondary role in the implementation of nature conservation policy (especially in the Natura 2000 network),  $eb \uparrow(+)\ast$  
                               | impact on raising the level of knowledge and awareness of organic farmers,  $eb \uparrow(+)\ast$,  $ec \downarrow(-)$.                                                                                     | not identified                                                                                                                                 |
| Support for LFA                 | preserving of the rural amenities  $eb \uparrow(+)\ast$  
                               | reduction of environmental pressure of agriculture,  $ec \downarrow(-)$  
                               | maintenance of extensive agriculture (HNV farming) on marginal areas,  $eb \uparrow(+)\ast$,  $ec \downarrow(-)$  
                               | synergies with the AEP  $eb \uparrow(+)\ast$  
                               | restriction for concentration of production,  $ec \downarrow(-)$  
                               | support for intensive agriculture in some areas (including irrigated areas)  $eb \downarrow(-)$,  $ec \uparrow(+)\ast$.                                                                                  |                                                                                                                                              |
| Afforestation of agricultural land | Preserving/increasing of the rural amenities,  $eb \uparrow(+)\ast$  
                               | maintenance/strengthening of natural elements increasing the capacity of environment,  $eb \uparrow(+)\ast$  
                               | strengthening of environmental services provided by forests,  $eb \uparrow(+)\ast$  
                               | indirect influence on reduction of environmental pressure of agriculture - by reduction of the utilised agricultural area (UAA),  $ec \downarrow(-)$  
                               | increase of the forest area,  $eb \uparrow(+)\ast$  
                               | reduction of greenhouse effect  $eb \uparrow(++)$.                                                                                                                                               | creation of forest monocultures,  $ec \uparrow(+)\ast$  
                               | the wrong selection of tree species,  $ec \uparrow(+)\ast$  
                               | reforestation of permanent pastures and meadows rich in coal,  $eb \downarrow(-)$,  $ec \uparrow(+)\ast$  
                               | distortion of rural landscape and semi-natural habitats,  $eb \downarrow(-)$.                                                                                                                      |                                                                                                                                              |
| Early retirements               | possible impact on modernisation of farms and increased willingness to participate in pillar II measures  $eb \uparrow(+)\ast$,  $ec \downarrow(-)$.                                                                 | an increase in concentration of production,  $eb \downarrow(-)$,  $ec \uparrow(+)\ast$,  
                               | reduction of rural amenities  $eb \downarrow(-)$,  $ec \uparrow(+)\ast$.                                                                                                                          |                                                                                                                                              |

If the services are related to increase of the environmental capacity to absorb pollution caused by agriculture, then they indirectly cause reduction of agricultural external costs ($ec \downarrow$). If the services affect the increase of capacity to absorb non-agricultural pollutants, they generate external benefits associated with reducing environmental costs caused in other sectors of the economy ($eb \uparrow$).

3. Implementation of key instruments

3.1. The period 2004-2006

In the first two financing periods of EU membership, Poland introduced the SAPS in pillar I. This solution is relatively favourable for SD. It did not depend on domestic political decisions, as the principles were agreed upon at the Community level (during pre-accession negotiations). Direct payments’ influence on the environment is strictly connected with cross-compliance standards which reduce external costs of agriculture. In Poland such impact was weakened due to the low effectiveness of implementation. Member states have some range of discretion in the application of the standards. Analysis, referring to the list of standards which were implemented in Poland (ARiMR, 2011), indicates that the requirements regarding climate protection, biodiversity and soil protection were not sufficient. The following regulations were not considered in the standards:

- requirements to preserve landscape features (e.g., woods, forests, bushes, hedges),
- obligation to use buffer strips around the Natura 2000 sites,
- the protection of permanent pastures combined with obligatory minimum stocking density,
- restrictive prohibition on reducing the green territories in UAA,
- universally binding standard referring to minimum soil cover in winter,
- extended crop rotation requirements,
- standards preventing from erosion and loss of organic matter (management of crop residues).

A particularly serious negligence can be noticed in fixing the area of Nutrient Vulnerable Zones (NVZ).\(^6\) Initially (for the years 2004-2012), Polish authorities indicated only 2% of the whole territory as the NVZ (Krajowa Rada Izb Rolniczych, 2012). In 2012, the area was increased to 4.56% of the country, but the scope of the implementation of the nitrates directive is considerably limited compared to other member states. Poland (together with Portugal) has the smallest NVZ area in relation to the whole territory (European Union DG Agri, 2012b).

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\(^6\) NVZ is the key element of the policy protecting water from agricultural pollution. Its legal base is so called nitrates directive (Council Directive 91/676/EEC).
In the first period of EU membership (2004-2006) pillar II measures (discussed in the previous section) were included in the second priority of the Rural Development Plan for the years 2004-2006\(^7\) (RDP 2004-2006). The title of the priority was *Sustainable and multifunctional development with special regards to environmental issues*. Its share in total RDP 2004-2006 allocation was 28\% (MRiRW, 2005a). Unfortunately, due to decisions of the Polish Ministry of Agriculture and Rural Development (MARD), 20\% of RDP 2004-2006 expenditures was reallocated for direct payments. Polish administration was not adequately prepared to absorb the pillar II measures which are more difficult in implementation than direct payments. MARD and the Agency for Restructuring and Modernisation of Agriculture (ARMA) were not prepared because they had not implemented pilot programs in advance - the AEP was cancelled within SAPARD during the pre-accession period\(^8\). This resulted in further spending cuts on the programme in the first period of membership. Finally - according to the Author’s calculation based on two versions of RDP 2004-2006 from 2005 (MRiRW, 2005a) and from 2008 (MRiRW, 2008) - financial support for the programme was reduced by 130 million EUR or by 40\% of the value from original plan.

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\(^7\) RDPs are the base of II pillar measures implementation in Member States. They are constructed by domestic authorities (ministries dealing with agriculture and rural development) according to rules developed at the Community level.

\(^8\) SAPARD (Support for Pre-Accession Measures for Agriculture and Rural Development) was a programme which had to prepare Polish administration to rural development measures during the pre-accession period. The justification of AEP cancellation was that the administration, including ARMA, was not prepared to its implementation.
Figure 1. The shares of the pillar II in overall CAP allocation and the shares of financial support for chosen instruments in the pillar II expenditures in main groups of member states and in Poland – 2004-2006 (%)

Source: Authors own elaboration based on: (European Commission, 2002); (European Commission DG Agri, 2003: 4); (Konecny, 2004: 63); (MRiRW, 2005b); (MRiRW, 2008) (Dwyer et. al. 2008: 35); (European Union DG Agri, 2012b).

The AEP’s share in the total value of RDP 2004-2006 (3.4 billion euro from the EU) decreased from almost 10% (according to the version of RDP 2004-2006 from 2005) to 5.75% (according to the version of RDP 2004-2006 from 2008). The share in officially classified II pillar decreased from 6.8% to 4.1% (Figure 1). As a result, in years 2004-2006 the AEP turned out to be the sixth RDP instrument in terms of financial value, while it was the most important rural development instrument at the level of the EU as a whole. Furthermore, the AEP share in pillar II expenditures was lower than in all groups of member states (Figure 1). The old member states spent 41.7% of the guarantee section or 26.1% of total pillar II allocation (both EAGGF sections) on the AEP (European Commission, 2005: 3). In the EU 10 these shares amounted respectively 18% and 13.2% (Konecny, 2004: 70). Poland and Latvia in this respect were ranked lowest in the EU. The AEP’s share in the value of Polish RDP (5.75%) can be compared to

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9 In years 2004-2006 officially classified II pillar consisted of allocation from two sections of EAGGF (European Agriculture Guidance and Guarantee Fund). RDP is financed from guarantee section.
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analogous indicators in the Czech Republic (49%), in Hungary (41%), in Estonia (30%) and in Slovenia (30%) (it is one of the reasons why the share of pillar II in overall CAP allocation for Poland was lower than in the EU-10). The data show relatively low effectiveness\textsuperscript{10} of financing in Poland. Effectiveness was also low in domestic dimension.\textsuperscript{11} When we compare the amount which was originally planned to be spent in the version of RDP 2004-2006 from 2005 with the sum which was spent in practice (according to data from RDP 2004-2006 published in 2008), the effectiveness of funding appears to be less than 60%.\textsuperscript{12} Taking into account the potential value of support (when 20% of the pillar II was not reallocated for direct payments) the effectiveness would be even lower - 46%. This influenced the practical results of implementation. According to the RPD version from 2005, in years 2004-2006 the physical area\textsuperscript{13} of the programme should cover 1.26 million hectares (7.8% UAA). Due to the reduction in the level of funding, it only covered 1.07 million hectares (6.6% UAA) (SAEPR-FAPA, 2006: 13). The measure was carried out on the surface equal to 85% of the area which was originally planned. The number of participants amounted to 70 thousand (approx. 4% of all Polish farmers) (GUS, 2007). The average size of farms participating in the programme was 15.3 hectare, which was almost two times bigger than the average size of all Polish farms (7.6 hectare) (GUS, 2007). This may imply that the programme was not adequately directed to extensive farming.

The value of LFA subsidies was the highest among all measures within RDP 2004-2006 (its share in total value of RDP was 26%) (MRiRW, 2008). The whole available allocation was fully executed, but the supported farms area (6.86 million hectares) was equal to 74% of the plan (9.38 million hectares) (IERiGŻ – PIB, IRWIR PAN, IUNG, BSM, 2009: 256). The measure was not fully directed to small farmers - the average size of supported farms was 11.95 ha (57% bigger than the average size of Polish farms) (GUS, 2007). This is inconsistent with main goal of the measure (support for extensive farming with natural handicap).

The share of allocation for the afforestation programme was similar to the respective shares in main groups of member states. However, the measure was not fully beneficial for the environment - 22.01% of the afforested area was located in permanent pastures and meadows

\textsuperscript{10} To assess the relative effectiveness of financing of the AEP (in international dimension), the Author compared the share of the measure in Polish pillar II expenditures to the analogous shares in other countries.
\textsuperscript{11} Domestic effectiveness of financing – relation of executed expenditures value to planned expenditures value.
\textsuperscript{12} Author’s calculation based on two versions of RDP 2004-2006 (MRiRW, 2005a); (MRiRW, 2008).
\textsuperscript{13} The physical size is less than the total area of AEP, because farmers participate in a few AEP packages at the same time.
These areas are important for rural landscape and for biodiversity, so they should not be converted to forests.

3.2. The period 2007-2013

In the second period of membership, the discussed pillar II measures were included in the axis 2 (titled Improvement of environment and countryside) of the Rural Development Programme for 2007-2013 (RDP 2007-2013). The allocation for the axis was equal to 32% of RDP 2007-2013 (MRiRW, 2011a). The allocation for the AEP (2.3 billion euro, including 1.84 billion euro from the EU) increased by 310% (on a yearly basis) compared to the previous period. The increase was much more dynamic than overall expenditures in the Polish II pillar (52.8% per year) and the entire CAP allocation for Poland (50% per year). Consequently, the AEP share in overall RDP allocation increased from 4.2% to almost 14%. Nevertheless, in terms of the financial value the programme is on the third place among all RDP measures. At the same time the AEP continues to be the most important instrument at the level of the entire Community. It could be concluded, that the effectiveness of financing is still relatively low in comparison to the main groups of the EU member states. The AEP’s share in the pillar II is still lower than in all groups of member states (EU 27 - 23.1%, EU 15 - 27.8%, EU 10 - 16%) (Kociszewski, 2013).

Domestic effectiveness of absorption improved in comparison to the previous period of membership - probably the whole value of expenditures will be executed for 100% (MRiRW, 2013a). According to RDP 2007-2013, the physical area of the programme was planned to be increased to:

- 1.5–1.8 million hectares official targets),
- or to 1.88–2.18 million hectares (11.6–13.4% UAA) if we included the AEP scheme oriented to Natura 2000 sites (MRiRW, 2013a).16

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14 Author’s own calculations based on: (MRiRW, 2011a); (MRiRW, 2008).
15 The group of new member states (so called the EU 12) includes Bulgaria and Romania, but these countries already started to implement the discussed measures. That is why they were not taken into account in comparative analysis (in Figure 2 only the EU 10 were involved).
16 Initially, that additional scheme (titled protection of endangered bird species and sites in Natura 2000 network) was not planned to be implemented within the AEP. It had to function separately in 153 thousand farms near or in Natura 2000 sites and should have covered 378 thousand hectares (MRiRW, 2011a). Finally, the scheme was implemented within the AEP, so it should be included in the comparative analysis referring to the programme.
This would mean, that the physical area should increase by 75% (in the first variant) or by 103% (in the second variant) in comparison to the previous period.

Figure 2. The shares of the pillar II in overall CAP allocation and the shares of financial support for chosen groups of instruments in the pillar II in the main groups of member states and in Poland – 2007-2013 (%)

*The share in entire value of expenditures on rural development measures – in years 2007-2013 financed from European Agricultural Fund for Rural Development (EAFRD). Overall allocation for Poland was 13.4 .4 billion euro (MRiRW, 2011a).
**The share in overall CAP expenditures.
Source: Authors own elaboration based on the: (MRiRW, 2011a); (Dwyer et. al. 2008: 35); (European Union DG Agri 2012b).

Until 2012, the physical area of the programme was 1.485 million hectares (Szymborska, 2012), thus 82.5% of the planned area was covered (according to the first variant) or in 68.1% (according to the second variant). Probably, by 2013 the AEP will cover 9% of the Polish UAA (physical area). The planned number of beneficiaries was 200 thousand farms. This number increases to 353 thousand farms (20% of total number of Polish farms exceeding 1 hectare) when taking into account the payments for farmers in Natura 2000. By 2012, only 4.5% of the Polish farms participated in the programme (Szymborska, 2012), so in this aspect the effectiveness of implementation should be assessed as low. Presented indicators are much lower than in all major groups of the member states. In the EU 27 the total area of the AEP was 46.4 million hectares in 2011 (European Union DG Agri, 2012a). This is 14.8% of the EU’s UAA (17.4% in the EU-15 and 8.75% in the EU-12). In the EU 27 the number of participants (2 million farms) was equal to
14.7% of total number of farms (7.3% in the EU 12, 25.5% in the EU 15) (European Union DG Agri, 2012a). In the EU 27 the number of participants is expected to increase to 2.8 million and the physical area to 50.7 million hectare by 2013 (European Commission, 2011: 8).

It may be concluded that the importance of the programme increased in comparison to previous period – both in the EU-27 and in Poland. The effectiveness of implementation improved too. However, but the AEP was still not directed to small extensive farms - the average size of farms participating in the programme was 18.7 ha, which was an increase by 22% compared to the previous period.

The allocation for LFA support decreased by 1.2% per year (MRiRW, 2011a). The average size of supported farms decreased to 9.9 hectare. Thus, in comparison to the previous period, measure seems to be better targeted to extensive farming (Agrotec Polska, IERiGŻ – PiB, IUNG – PiB, 2010: 209). Unfortunately, environmental standards referring to the measure are less restrict than in years 2004-2006. Farmers do not have to fulfil upper requirements anymore\(^\text{17}\). They just have to meet basic cross-compliance standards. In the light of SD, this is a deterioration.

The allocation for afforestation programmes increased by 72% per year compared to years 2004-2006. Until 2010, only 16.5% of the sum was spent, so there is a risk that it will not be fully absorbed (Agrotec Polska, IERiGŻ – PiB, IUNG – PiB 2010). Probably the afforestation plan will successful – until 2010 only 10.2 thousand hectares of agricultural land were converted to forest (9% of the plan).

In the next financial perspective (2014-2020), the value of support for the pillar II will be reduced in Poland. This is the result of three factors:

- the negotiating position adopted by Polish authorities in the context of the future shape of the CAP (MRiRW, 2011b),
- the negotiating position adopted by Polish authorities in relation to the proposed structure of the EU budget for 2014-2020 (European Council, 2013),
- the projected changes in the national structure of the CAP expenditures (MRiRW, 2013a).

\(^\text{17}\) In years 2004-2006 beneficiaries of the LFA payments had to fulfill environmental standards indicated in the list titled Common Good Agricultural Practice (CGAP) (MRiRW, 2005a). They were more restrict than those which were included in Good Agricultural and Environmental Conditions (GAEC) - within cross-compliance (Kociszewski 2013). CGAP included standards connected with mineral nitrates use, plant protection product use, sewage sludge management, permanent grassland protection, preservation of landscape, prevention against expansion of undesirable animal and plant species (MRiRW, 2005a).
The sum of the CAP support (28.5 billion euro at 2011 constant prices) will not be less than in the current financial perspective. However, the lion share has to be spent on pillar I - 18.8 billion euro, or 66% of the total allocation for Polish farmers.\textsuperscript{18} Only 9.7 euro billion is planned to be allocated to pillar II, which is 3.7 billion less than in the period 2007-2013 (a decrease of 27.6%). In addition, Poland plans to reallocate 25% of the pillar II funds to direct payments (2.425 billion euro) (MRiRW, 2013a). Finally, the value of rural development support would be 7.275 billion, or 25.5% of the sum of the total CAP allocation for Poland. The value of rural development expenditures would be reduced by 6.125 euro billion compared to the current period (by 45.7%). It would be very disadvantageous for SD, because it would decrease financial support for the AEP and other measures aimed at environmental protection. In that context it is worth to underline that the results of the nationwide research conducted by the author (among owners of conventional farms) show that 13% of respondents declared willingness to participate in the AEP (Kociszewski, 2013). There is still huge potential to develop the programme, but the domestic policy at the matter should be improved.

4. Concluding remarks

Main groups of CAP instruments have different impact on SD. The influence of direct payments on the process is complicated. On the one hand they contribute to intensification of agriculture, consequently to increase of external environmental costs and decrease of external benefits. On the other hand they are important factors of maintenance of extensive farms. It enables the delivery of environmental services. It is worth to notice, that the hypothetic withdrawal of direct payments could contribute to strengthening of competitive pressure on extensive farms and could cause more dynamic intensification of agriculture than it is observed nowadays (with all the related negative consequences). Environmental impact of the pillar I is strictly associated with cross-compliance standards. In Poland they are insufficiently implemented.

\textsuperscript{18} Author’s own calculations based on data published by the EC (European Council, 2013) and MARD (MRiRW, 2013b).
The agri-environmental measure is an external factor with a strongly positive impact on SD. In Poland, the effectiveness of financing of the programme is relatively low – especially in comparison to the main groups of the EU member states. The share of expenditures on the AEP in the Polish Rural Development Plan (for 2004-2006 and 2007-2013) is one of the lowest in the EU. The measure has been implemented in a limited area (9% of Polish UAA) and involved a relatively small number of farmers (4.5% of total number of Polish farms exceeding 1 hectare). The other CAP pillar II measures which could have a positive influence on SD are the support for LFA and afforestation programmes. Their impact on SD depends on the way in which they are implemented in practice. LFA support was not fully directed to extensive farming. Furthermore, in the years 2007-2013 beneficiaries did not have to fulfil upper environmental standards anymore. It means the measure was insufficiently directed to stimulate supply of environmental services. The funds for afforestation programmes were relatively small (in comparison to other pillar II measures) and were ineffectively absorbed – especially in the second period of membership.

It can be concluded that the main barriers for Polish agriculture sustainability are connected with weak institutions/organisations involved in domestic rural policy (the pilot AEP cancellation in SAPARD, deep cuts in the pillar II expenditures for the years 2004-2006, insufficient cross-compliance standards, and the plans of reduction in pillar II value in the years 2014-2020). There is a lack of political will to effective implement measures which are favourable for SD. It could contribute to further concentration and intensification of production and to environmental damage. In the context of the CAP reform and associated changes in the EU budget there is a need to improve the implementation of the AEP and a need for increasing its share in RDP 2014-2020 (which is currently projected in Poland).

**Literature**


Instrumenty Wspólnej Polityki Rolnej jako czynniki zrównoważonego rozwoju polskiego rolnictwa

Streszczenie

Celem artykułu jest identyfikacja instrumentów Wspólnej Polityki Rolnej (WPR) jako czynników zrównoważonego rozwoju polskiego rolnictwa. Zostały one ocenione w świetle sposobu projektowania i realizacji polityk rolnej i ekologicznej. Płatności bezpośrednie z jednej strony wpływają na intensyfikację rolnictwa, a drugiej na zachowanie rolnictwa ekstensywnego w innych regionach (umożliwiając tam dostarczanie usług ekologicznych). Oddziaływanie WPR na środowisko jest ścisłe związane z zasadą cross-compliance, ale w Polsce nie wdrożono w jej ramach wielu ważnych standardów (w ochronie wód, różnorodności biologicznej i gleb). Program rolnośrodowiskowy jest czynnikiem o silnie pozytywnym wpływie na zrównoważony rozwój, jakkolwiek w Polsce skuteczność jego finansowania jest relatywnie niska – zwłaszcza w porównaniu do głównych grup państw członkowskich UE. Inne instrumenty WPR o potencjalnie pozytywnym wpływie na zrównoważony rozwój (wsparcie obszarów o niekorzystnych warunkach gospodarowania, zalesienia gruntów rolnych) zostały niewystarczająco ukierunkowane na stymulowanie dostarczania usług środowiskowych.

Słowa kluczowe: rolnictwo zrównoważone, rozwój obszarów wiejskich, zrównoważony rozwój rolnictwa, ochrona środowiska w rolnictwie, działania wsparcia rozwoju wsi, program rolnośrodowiskowy.