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Aspekts of the implementation of sustainable agriculture policy in the European Union

Formulation of the problem.

The aim of the study is to present new solutions with regard to sustainable development of agriculture on the basis of abundant literature that results from the implementation of the Multiannual Programme 2011-2014 by the Institute of Agriculture and Food Economics. At the same time, the study is based on EU documents (e.g. Commission working paper [Impact 2011], meaningfully subtitled "CAP greening").

The Communication of the European Commission [Communication 2010] that determines the CAP development path till 2020, indicates two main tasks for the years to come. One of them is ecological sustainability. This concept has the crucial significance for the essence of the sustainable development concept [Jeżowski 2015].

The ecological sustainability is implemented through the following instruments: new pro-ecological payment within pillar I, extension of cross-compliance on climate changes [Webster 2002], two priorities concerning environment in the Rural Development and Research, innovation, knowledge transfer and improved Farm Advisory System.

Payment for agricultural practices beneficial for the climate and the environment, i.e. greening, is a mandatory component of the new direct payments system. 30% of the national envelope, i.e. about EUR 1 billion, has been allocated to fund it.

Greening takes place through:
crop diversification,
preservation of permanent grassland,
preservation of ecological focus areas (EFA)

What is more, it is possible to diversify crops through a balanced practice under the agricultural, environmental and climatic measure of Rural Development Programme 2014-2020 by compliance through the requirement concerning *cultivation of at least four crops in the main crop during the year, while the total percentage of the main crop and all cereals in the sowing structure may not exceed 65%, and the proportion of each crop may not be less than 10% (crop – defined in Article 44 (4) of the Resolution of the European Parliament and of the Council (EU) No. 1307/2013,*" under Package 1.

All farmers entitled to single area payments are obliged to implement greening. Depending on the area of arable land on the farm and the proportion of permanent grassland on the farm, farmers are obliged to comply with one, two, or three greening practices.

EU regulations provide for a number of exemptions from the obligation to comply with them, e.g. farms where permanent grassland makes up 75% of agricultural land or farms with high percentage of arable land used for production of grass or other green fodder crops, or fallowed due to favorable environmental impact are exempted from the obligatory crop diversification or maintenance of ecological focus areas provided that the remaining arable land does not exceed 30 ha.[1]

Farms that take part in the small farm scheme are eligible for this payment in spite of the fact that they are "exempted" from greening.

[1] See – exemptions with regard to crop diversification – Article 44 (3) of Regulation No. 1307/2013
or maintenance of ecological focus areas – Article 46 (4) of Regulation No. 1307/2013.

The greening payment is automatically assigned to farmers whose agricultural production complies with the principles of ecological farming[2] – this regulation applies only to the part of the farm area which is used for ecological production pursuant to Article 11 of Regulation (EC) No. 834/2007.

If a farmer fails to comply with greening practices, they incur an administrative penalty that consists in reduction in the amount of direct payments they receive in the specific year.[3] During the first two years of the implementation of greening (2015 and 2016) the penalty will not exceed the amount of the greening payment, and it will amount to a portion of or the entire greening payment depending on the severity of non-compliance.

In further years, however, it will be possible for the penalty to exceed the greening payment (in 2017, by up to 20%, from 2018 on, by up to 25%), which in some cases means that the penalty for non-compliance with greening practices will result in a reduction in other payments.

The main results of the research.

Crop diversification is a requirement that covers farms with the minimum of 10 ha of arable land, there are following variants:

(a) from 10 to 30 ha of arable land – these farms are obliged to cultivate at least two different crops on the arable land, and the primary crop may not take more than 75% of the arable land,

(b) above 30 ha of arable land – these farms are obliged to cultivate at leastthree different crops on the arable land, and the main crop may not take more than 75% of the arable land, and the total area of two crops may not exceed 96% of the arable land.

The following are considered different crops:

- genus in the botanical classification of crops;
- a species from the *Brassiceae* family, *Solanaceae* family, and the *Cucurbitaceae* family;
- winter and spring forms of the same genus;
- fallow land;
- grass or other green fodder crops.

As far as calculation of crop proportions is concerned, a farmer may declare a specific plot of land for payment only once per year the application is submitted.

In order to protect permanent grassland, which greatly contribute to the preservation of biodiversity and play a particularly important role in carbon dioxide absorption and soil protection, obligations have been introduced with regard to permanent grassland maintenance. Under these requirements, it is forbidden to transform or plough designated permanent grasslands of high natural value within Natura 2000 **sites**, including areas on peat and fenland soils that require strict protection in order to achieve the goals of the Birds Directive (2009/147/EC) and the Habitats Directive (92/43/EEC). Each farmer who owns permanent grassland of high natural value has been individually informed of the fact in the information card enclosed to the provisionally filled in payment application in 2015.

If a farmer ploughs or transforms permanent grassland of great natural value, they are obliged to retransform the area to permanent gra**ssland**, apart from incurring the penalty in the form of payment reduction.

(2) What is more, in order to prevent mass transformation of permanent grassland to arable land, the nationwide obligation to maintain the share of permanent grassland in agricultural land area will be introduced in the country, and the proportion will not be allowed to decrease by more than 5% compared to the 2015 reference level.[4] This mechanism is analogous to the current one under cross-compliance.

If the permanent grassland indicator decreases by more than 5% across the country, it will be necessary to implement corrective measures that consist in obliging farmers who have transformed permanent grasslands to restore the specific permanent grassland area or recreate the same area of permanent grasslands in other place.

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[2] Farmers who comply with requirements defined in Article 29 (1) of Regulation (EC) No. 834/2007.

[3] Pursuant to Article 77 (6) of Regulation No. 1306/2013.

[4] The reference level is calculated as the ratio of the permanent grassland area (declared in 2012) and new permanent grassland area that was not taken into account in 2012 and was declared in 2015) to the total ara of agricultural land declared in 2015.

The farms obliged to preserve ecological focus areas are the ones with more than 15 ha of arable land, which have to have EFAs with the minimum area of 5%[5] of the arable land area.

Farmers may classify the following features as ecological focus areas:

(1) fallow land where no agricultural production takes place between 1st January and 31st July (after this date, the farmer will be allowed to start agricultural production on the land again).

The following regulations apply to fallow land classified as an EFA:

- it is forbidden to sow and cultivate plants for production purposes, which includes the prohibition of grazing and cutting;
- it is allowed to use herbicides to prevent undesired plants from growing (according to the cross-compliance principle);
- it is allowed to sow field plant seeds in order to increase the benefits of biodiversity provided that such plants are not used for production purposes and as animal fodder.

(2) landscape features owned by the farmer:

A. Landscape elements protected under the Good Agricultural and Environmental Conditions(GAEC):

(a) trees that are monuments of nature;

(b) ponds with the area smaller than 100 m²;

(c) ditches whose width does not exceed 2 m;

B. Other landscape elements that meet the following criteria:

(a) hedges or tree belts with the maximum width of 10 m;

(b) free standing trees with the minimum crown diameter of 4 m;

(c) tree lines that include trees with minimum crown diameter of 4m; the distances between the trees shall not exceed 5 m;

(d) tree groups with overlapping tree crowns and mid-field coppices with the maximum area of 0.3 ha;

(e) balks between fields with the width between 1 m and 20 m, where no agricultural production takes place;

(f) ponds with the maximum area of 0.1 ha excluding reservoirs with concrete or plastic elements, which include shore vegetation up to 10 m wide;

(g) ditches with the maximum width of up to 6 m, including open watercourses for irrigation and drainage, excluding canals made of concrete.

(3) buffer zones, including buffer zones on permanent grassland provided that they differ from neighbouring agricultural land – with the area

- defined under the GAEC (5 m, 10 m, or 20 m) and
- other buffer zones whose width is not smaller than 1 m and does not exceed 10 m.

Buffer zones may also include riparian vegetation belt up to 10 m wide along a watercourse. Agricultural production is not allowed in buffer zones, but grazing and cutting is allowed there.

(4) strips of land eligible for payment along forest edges between 1 m and 10 m wide.

Agricultural production is allowed in such land strips. If no agricultural production takes place, grazing or cutting is allowed provided that such strips of land can be differentiated from neighbouring arable land.

(5) coppices. Coppices treated as EFAs include species of the *Salix* and *Betula* genera, and *Populus nigra* with its hybrids. In the case of coppices, the area classified as EFA may constitute only 30% of the actual area (see Table 2 – weighting and conversion factors).

(6) areas forested after 2008 under RDP 2007-2013 (forestation of agricultural land) and RDP 2014-2020 that were eligible for single area payment in 2008.

(7) intercrops or green cover with grasses as companion crops for the main crops or mixtures of at least two species from the following crop groups: cereals, oil plants, fodder crops, small grain legumes, large grain legumes, and meliferous plants. Above mixtures are not kept on the same agricultural plot as a main crop in the year after the mixture was sown.

Area classified as EFA may constitute only 30% of the actual area.

Mixtures composed exclusively of cereal species are not considered an EFA.

In the case of large variation between EFAs on neighbouring farms, they can take advantage of the opportunity to meet the requirement

[5] After the European Commission has presented the evaluation of the implementation of the practice after 2017, this percentage may be increased to 7%.

jointly. In such case, compliance with the following conditions is required:

- up to ten farmers may implement the EFA practice jointly;
- the farms have to be situated close to one another – 80% of the area of each farm has to be situated within a radius of 15 km, i.e. in within a circle with the diameter of 30 km
- only neighbouring ecological focus areas may be accounted jointly (no minimum area of the contact point has been defined);
- each farmer guarantees that at least half (50%) of the area that should be allocated to EFAs (i.e. area equal to 2.5% of their arable land) is situated on their farm. The remaining part may be implemented through the common EFA;
- EFAs covered by the joint implementation >may comprise a single area or several areas and be situated on the land owned by one or more farmers, i.e. not all farmers who take part in the joint implementation of the EFA practice have to take part in the creation of the common EFA;
- the farmers are obliged to conclude a written agreement concerning (i) financial details of the agreement and (ii) penalties incurred in case of non-compliance on the common EFA.

Thus, it can be seen that the government programme includes many possibilities to make our agriculture more environmentally friendly. When analysing progress in this regard, we should point to important links between the direct payment system and Rural Development Programme (RDP) 2014-2020. Environmental and climate goals are implemented through the greening payment. Requirements that are addition to good agricultural and environmental conditions and greening for selected areas (NATURA 2000, LFA, erosion areas) are included in RDP 2014-2020.

Greening, the main innovation in CAP for 2014-2020, was supposed to be a condition for supporting rural areas and agriculture in providing public goods – "public money for public goods" [Kociszewski 2012]. Looking on the development of CAP objectives and spendings, starting with the 1992 reform, what could be expected was the demand and shift of a large proportion of funds to the 2nd Pillar, including the sustainable development goals. However, this has not happened, and even the policy for the current financial perspective was implemented, there had been a step backwards from the original assumptions [Matthews 2012].

The last serious reform that shaped Common Agricultural Policy until 2013 took place in 2003, in Luxembourg [Krzyżanowski 2005]. The decisions related to modification of the existing CAP instruments included also a decision to conduct a CAP health check in 2008.

This review also defined the directions of future changes to CAP (after 2013). "New challenges" concerning climate change, renewable energy, water management, biodiversity, measures related to restructuring of dairy industry and innovation with regard to the first four tasks were defined and added to CAP objectives.

According to Health Check findings [Report 2008], as far as the cross-compliance conditions related to the payments are concerned, two criteria were added to the Good Agricultural and Environmental Conditions – buffer zones along watercourses, and principles governing use of water for irrigation. A portion of Good Agricultural and Environmental Stadnards were made optional, which provided the opportunity to adjust those standards to specific natural conditions in Member States better.

Farms with up to 15 ha of arable land (originally, the Commission proposed that this obligation concerns agricultural land) are exempted from the obligation to maintain ecological focus areas (EFAs); the proportion of those areas on a farm was reduced from 7% (as proposed by the Commission) to 5%, but it can be raised to 7% after the Commission has presented the report, which is to happen by the end of March 2017, the list of categories of land classified as ecological focus areas has been expanded, e.g. by adding nitrogen-fixing crops (legumes), intercrops, and green cover, apart from fallow land, terraces, landscape features, agri-forest systems, short rotation coppice areas where mineral fertilisers and/or plant protection products are not applied, strips of land by the forest edge, and forested areas, from which a Member State is to select ones to be included in the regulations to be introduced there. To determine the EFA percentage, Member States may use

relevant weighting factors that reflect the environmental significance of specific areas.

The lower limit of arable land below which a farm is exempted from the crop diversification requirement was raised from 3 ha to 10 ha. Farms between 10 and 30 ha are required to cultivate two different crops (not three as the Commission proposed). The main crop cannot take more than 75% of arable land; and farms with more than 30 ha have to cultivate at least three crops on arable land, and the two primary crops cannot take more than 95% of arable land.

After Health Check findings, innovation, climate change and environmental protection are the cross-sectional theme in measures under the Rural Development Programme. Ecological farming now constitutes a separate measure.

A defined portion of measures under the new Rural Development Programme is supposed to contribute to the implementation of environmental and climatic aims. The minimum threshold for allocation of spendings from the European Agricultural Fund for Rural Development of 30% has been established for those measures (the European Commission originally proposed 25%). Apart from ecological farming, the agricultural, environmental and climatic measure, support for areas with natural and other particular constraints, their scope (extended due to negotiations) also includes investment in fixed assets with positive environmental and climatic impact and a group of forest-related measures for NATURA 2000 sites.

Under the agricultural, environmental and climatic programme, ecological farming, payments for Natura 2000 sites and payments related to the Water Framework Directive, the basic requirements have been supplemented with a regulation concerning agricultural activity with regard to agricultural land area (defined in Article 4 paragraph 1 (c), second and third indent of the direct payments regulation). Under the agricultural, environmental and climatic programme, ecological farming and Natura 200 payments as well as payments related to the Water Framework Directive, there can be no double financing (i.e. simultaneous payments due to compliance with the same requirements as in the case of greening payments).

Two years later, in the Commission document [Commission Communication 2010], the main demands related to the sustainable development of agriculture were restated. Environmental activity under CAP is supposed to improve due to the introduction of the mandatory green component in direct payments as well as through support for measures for the environment that are applied across the EU. The above may take the form of simple general measures that are performed annually (e.g. maintenance of grasslands, green cover, crop rotation, or ecological set-aside).

Under the regulations concluding the reform [Regulations 2013], most of Council's simplifying solutions concerning greening of direct payments have been preserved, just like in the Health Check.

The provision related to the obligation to maintain permanent grassland at the farm level has been modified. It has been limited to permanent grasslands of great natural value at Natura 2000 sites that include peat and fenland soils. What is more, if proportion of permanent grassland in the total agricultural land area has not decreased by more than 5% in a specific country, a possibility to maintain permanent grassland area at the national or regional level has been introduced instead of the farm-level maintenance, which was originally proposed by the commission

The scope of measures for pursuing agricultural and climatic goals has been extended. Apart from ecological farming, the agri-environmental programme, support for less favourable areas, they include also investment in fixed assets with positive environmental and climatic impact, a group of forest-related measures, NATURA 2000, and simultaneous increase in the minimum spendings on those purposes from 25% to 30% [Regulation 2013c].

In general, it can be said that there has been some progress in making agriculture more sustainable compared to the previous period (its extent will be possible to measure after the programmes have function for several years), though it has not been as big as it could be expected from the initial EU documents.

As stated above, the implementation of crop diversification as one of the primary greening tools is possible through the equivalent practice

under the agricultural, environmental and climatic measure under the RDP 2014-2020. Agri-environmental programmes have been an important element of the Rural Development Programme since Poland joined the European Union. Under the 2007-2013 financial perspective, PLN 2.5 billion were spent on the above objectives [ARiMR... 2015]. As far as the 2014-2020 period is concerned, the planned spendings amount to EUR 2 billion under measure 10 – Agriculture, environmental and climatic measure (EUR 1.184 billion) [RDP 2014].

The aim of the implementation of the agri-enviornmental programme under RDP 2007-2013 was the improvement of the condition of the environment and rural areas, including particularly:

- restoration or maintenance of valuable habitats used for agricultural purposes and preservation of biodiversity in rural areas;
- promotion of a sustainable farming system;
- proper use of soil and protection of waters;
- protection of threatened local farm animal breeds and local varieties of crop plants.

The following agri-environmental packages will be implemented under the agri-environmental programme (Annex 10 to the Programme):

- Package 1. Sustainable agriculture;
- Package 2. Ecological farming;
- Package 3. Extensive permanent grasslands;
- Package 4. Protection of threatened bird species and natural habitats outside Natura 2000 sites;
- Package 5. Protection of threatened bird species and natural habitats within Natura 2000 sites;
- Package 6. Preservation of threatened plant genetic resources in agriculture;
- Package 7; Preservation of threatened animal genetic resources in agriculture;
- Package 8. Protection of soil and waters;
- Package 9. Buffer zones.

The basic requirements under the agricultural, environmental and climatic programme have been supplemented with the requirement concerning agricultural activity with regard to the area of agricultural land. This means that agricultural, environmental and climatic payments will cover only those obligations that exceed cross-compliance requirements, relevant criteria and minimum measures that result from the definition of agricultural activity, relevant minimum requirements concerning fertilisers and plant protection products, and other obligatory requirements established through national legislation. In the case for Natura 2000 sites payment, the Council's position has been changes, and the Statutory Management Requirements have been added to the basic requirements (just like in the original proposal by the Commission).

Regulation (EU) No 1307/2013 and its delegated and implementing acts require Member States to notify the Commission their decisions made in accordance with the underlying legal provisions. By 1 August 2014, Member States had to notify the Commission their main policy choices in respect of the direct payments' implementation, i.e.: equivalence, level of application of the ratio of permanent grassland, list of ecological focus areas (EFA) and application of collective EFA [Krzyżanowski 2015].

In this respect, five Member States notified their intention to offer their farmers the possibility to meet (some of) their greening obligations through equivalent practices. Only two Member States (NL and PL) will allow for collective implementation of EFA obligations. Among the chosen EFA elements, the most dominant is the nitrogen-fixing crops (all MS except DK), followed by land lying fallow (all except NL, RO), landscape features (at least one) (24 MS), short rotation coppice (20 MS), catch crops (19 MS), buffer strips (17 MS), afforested areas (14 MS), agroforestry areas (11 MS). Other sources indicate [Commission 2016] that farmers decided to sow nitrogen-fixing crops (45.4 % of the physical area on the ground), catch crops (27.7 %), to leave land lying fallow (21.2 %), and to observe landscape features (4.3 %).

Thus the experience of the first year of EFA maintenance is positive, especially in the case of Papilionaceae and fallow land.

According to MS notifications [Commission 2016 agricultural land subject to at least one

green direct payment obligation amounts to 72 % of the total EU agricultural area (Figure 1). This wide coverage demonstrates the potential of green direct payments in delivering environmental and climate benefits on a large share of EU farmland. The share of farmers under at least one greening obligation makes around 36 % of direct payment beneficiaries.

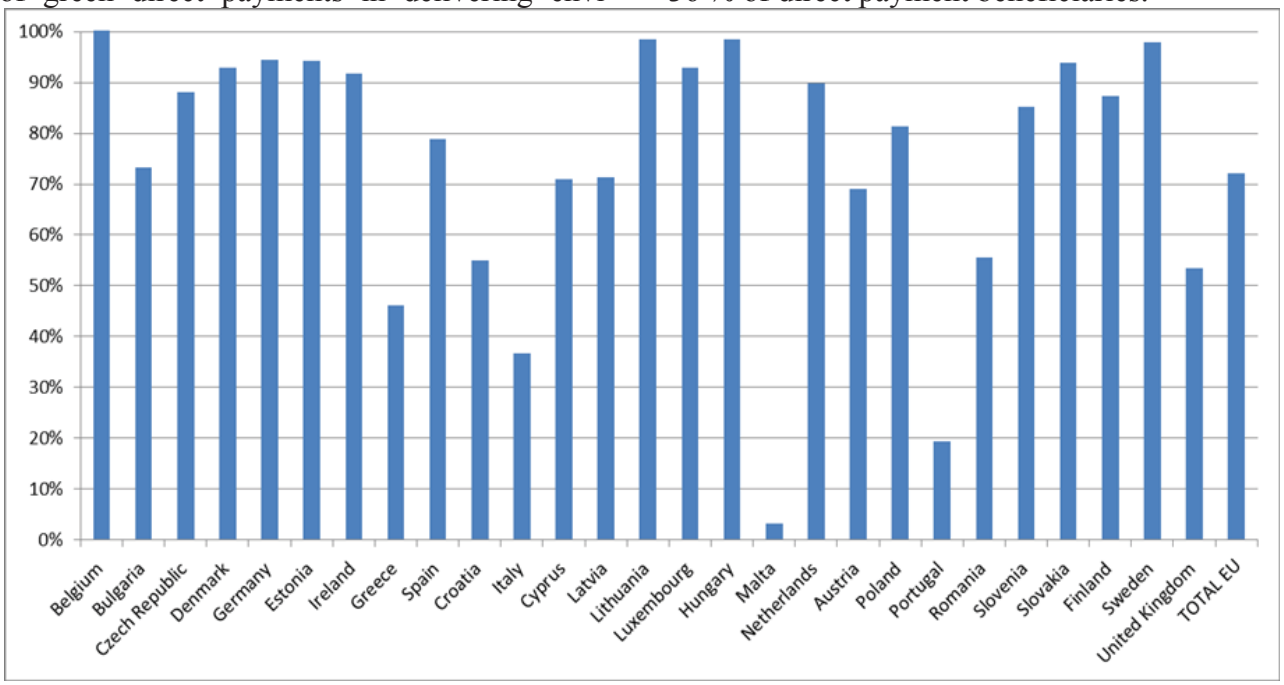

Figure 1. Rate of hectares under at least one greening obligation in total agricultural area

Source: Member States' implementation data 2015, Eurostat farm structure survey 2013

Arable land under the crop diversification obligation amounts to 75 % of the total EU arable land. However, the differences across Member States are enormous, ranging from few per cent in Malta to almost 100 % in Hungary. arable land (see Figure 2). Those differences illustrate the diversified land structure. Generally the bigger the farm, the greater the diversification.

The detailed analysis shows [Commission 2016] that for 8 % of total arable land in Europe, representing approximately 10 % of total arable land under crop diversification, farmers have had to adjust a part of their crop production pattern in order to respect the thresholds for crop diversification (e.g. the main crop should not represent more than 75 % of the farm's total arable land). In fact, the amount of land on which farmers have to change crops to be compliant with such thresholds is estimated to be around 1% (which corresponds usually to only a few hectares compared with the total arable land of the farm). With soil erosion being a major problem for EU agriculture(about 13% of arable land), this greening requirement helps to avoidae a further deterioration of the current situation .

The 5% ecological focus area obligation is applicable to around 68 % of EU arable land. At national level, this value stands at around 90 % in Belgium, Bulgaria, the Czech Republic, Denmark, Germany, Hungary and Slovakia, while other Member States exhibit intermediate values between 40 % and 80 %.

The requirements for crop diversification and maintenance of permanent grassland are only to a limited extent dependant on choices by Member States and farmers. This is because rules are fixed at EU level. However, Member States and farmers do enjoy a large margin of decision in fulfilling the EFA requirement. This largely determines the environmental impact of the EFA obligation.

In order to protect permanent grassland, which greatly contribute to the preservation of biodiversity and play a particularly important role in carbon dioxide absorption and soil protection, obligations have been introduced with regard to permanent grassland maintenance.

Under these requirements, it is forbidden to transform or plough designated permanent grasslands of high natural value within Natura 2000 sites, including areas on peat and fenland soils that require strict protection in order to achieve the goals of the Birds Directive (2009/147/EC) and the Habitats Directive (92/43/EEC).

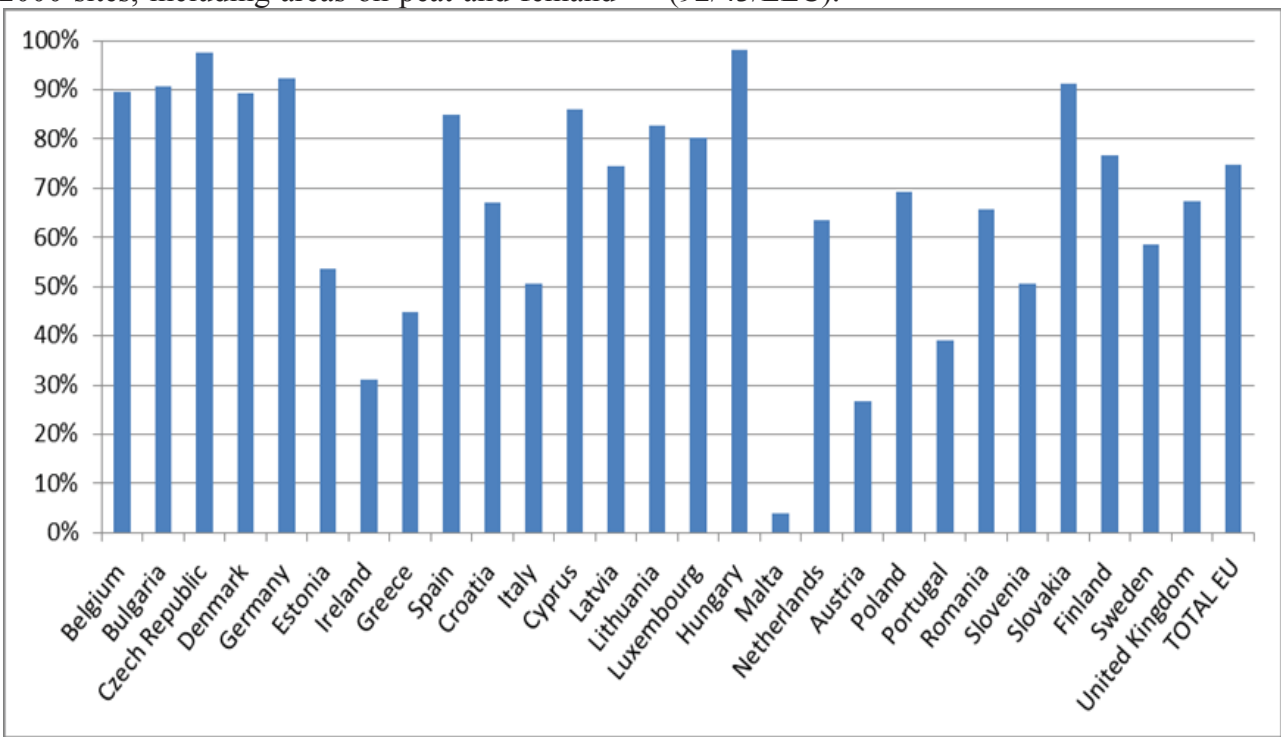

Figure 2. Percentage of areas of arable land in farms subject to crop diversification obligations compared with total arable land at Member State level

Source: Member States' implementation data 2015, Eurostat farm structure survey 2013

If a farmer ploughs or transforms permanent grassland of great natural value, they are obliged to retransform the area to permanent grassland, apart from incurring the penalty in the form of payment reduction.

If the permanent grassland indicator decreases by more than 5% across the country, it will be necessary to implement corrective measures that consist in obliging farmers who have transformed permanent grasslands to restore the specific permanent grassland area or recreate the same area of permanent grasslands in other place.

The ratio of permanent grassland stands at 29 % of the total agricultural area in the EU. Ireland and the United Kingdom (Northern Ireland, Scotland and Wales) have the highest value with approximately 90 %, while the lowest ratio is found in Cyprus, Finland, Denmark and Malta. The average fir the MS is 45 per cent.

Environmentally sensitive permanent grassland covers 16 % of total permanent grassland, albeit with a high variability across the EU. The areas declared by farmers amount to 40 % of total permanent grassland in Natura 2000 areas.

Farmers exempted from greening obligations under the small farmers scheme15 represent 41 % of the total number of farmers but only 5 % of the total agricultural area benefiting from direct payments.

Equivalent measures were implemented in five Member States, mostly with agri-environmental and climate measures, and cover 6 % of the arable land, but 2 % of farmers. However, In Austria, equivalent practices under agri-environment climate measures account for 19 % of farmers and half of arable land.

Conclusions. The mandatory implementation of the agricultural practices associated with green direct payments may entail changes in land allocation and land use for the farmers concerned. Concerns were raised in this respect about the impact of these practices on the EU production potential, in particular on the spatial limitation on production and on the reduction of inputs linked to the introduction of the ecologi-

cal focus area (e.g. with the promotion of areas without production, such as land lying fallow).

The results of the review [Commission 2016] indicate that crop diversification obligation would not entail a substantial change over the medium term in land allocation and production potential.

The crop diversification measure successfully targets those farms that only cultivate one crop. The analysis shows that the area reallocation would predominantly take place in wheat, barley and maize.

The effect of green direct payments on land use and agricultural production is generally projected to remain very low over the medium term, with the noticeable exception of a slight increase in the share of permanent grassland, fallow land and protein grain production compared with a situation without green direct payments.

The calculations show that the introduction of greening obligations will not lead to changes across the EU of more than 1.5 % in agricultural production over the medium-term compared with a situation without green direct payments. Protein crops are the only crops expected to grow by more than 5 %

There will be 3.2 % more permanent grassland in 2025 than what is anticipated in the absence of green direct payments.

The impact of the EFA obligation on production potential, as measured in agro-economic models, confirm what was observed in 2015: the share of fallow land and of protein crops are likely to increase by 8.9 % and 4.4 % respectively against their long-term trend.

However, the actual impact on environmental outcomes depends — for certain aspects — on the choices made by Member States and farmers. This is the case in particular for ecological focus areas where nitrogen-fixing and catch crops are the predominant declared EFA types. Few Member States made use of the possibilities to limit the use of pesticides and fertilisers in these areas. Landscape features which are particularly important for the protection of biodiversity were not among the most declared EFA types. Thus, the current pattern of EFA types tends to limit the intended contribution of this instrument as regards the improvement of biodiversity on farms. In contrast, the expansion of land lying fallow represents a positive development in this context.

The assessment [Commission 2016] shows that the practice of crop diversification was already applied on most arable land. Therefore, the greening requirement contributes to at least preventing the degradation of soil quality. Controlling the evolution of the ratio of permanent grassland in relation to the total agricultural areas contributes to the sequestration of carbon.

The studied material clearly shows that such emphasis has been put on agri-environmental matters for the first time in the history of CAP. As stated above, the current CAP includes a requirement that makes payment of 30% of direct payment on redirection of the agricultural sector towards greater sustainability (the so-called greening). Funds allocated to agri-environmental programmes have also increased greatly.

We have developed tools to measure progress of sustainable development of agriculture. Thus, we can analyse changes in EU agriculture. The analysed documents depict it quite optimistically. EU agriculture provides environmental public goods and contributes to decrease in climate fluctuation. It also significantly contributes to production of renewable resources.

CAP ensures protection of biodiversity and leads to improvement in protection of animal species and habitats.

An additional subject of research should cover external and internal conditions for sustainable development (which cannot be directly implied from the documents analysed above).
The former category includes global factors of the following nature:

- economic – the global economic crisis, rapid fluctuation of various product prices, including prices of agricultural products, the necessity to ensure food security for individual countries, development of renewable agriculture,
- environmental – greenhouse gas, declining soil conditions, the necessity to take care of air and water quality to an extent greater than ever, and preservation of biological diversity.

In the agricultural sector itself, there are also conditions that result from increasingly numer-

ous ties between European and global agriculture through European Union's attempts at concluding integration agreements primary with the USA, Canada, or Japan. Agricultural trade agreements negotiated on the World Trade Organisation forum are also not without meaning (e.g. for our export opportunities, but primarily for the further chances to support the agricultural sector). If such agreements enter into force, it will likely influence the sustainable development of European agriculture. The negotiations may lead to certain trade-offs with regard to the greening of the sector.

Demographic changes in rural areas, difficulties in expanding the farm area (including growing land prices) and situation resulting from the state policy, including the division of available EU funds for agriculture and rural areas, may be classified as internal factors. Additional condition that is positive but difficult to measure is the increasing farmer's willingness to take joint actions.

On the other hand, unfavourable phenomena also occur – excessive pursuit of rapid increase in income, which results in use of means of production (seeds, animal-derived material, fodder) of uncertain quality, sometimes excessive use of chemicals, which leads to end products of dubious quality.

Once again, the multifunctional nature of agriculture in EU Member States should be pointed to, as an important feature of the sector, which is totally different from what can be seen in other countries, e.g. the USA, where agriculture is focused on maximisation of production and exports.

The European Union attaches importance to the "environmental" aspects of agriculture, such as: protection of the environment and biological diversity, preservation of landscape, cultural heritage and traditional mode of life, food security, sustainable rural development, food safety, or animal welfare.

At the same time, it is not easy for EU agriculture to function in the international environment that has not accepted those values yet. A good illustration of the fact are the non-tariff barriers to trade with the USA, such as:

- animal welfare – EU standards in this regard are high and restrictive, which greatly affects production cost and reduces competitiveness of price of some EU agricultural products on international markets,
- certain technologies used for agricultural production in the USA, e.g. meat produced using growth hormone or ractopamine, use of chemicals for decontamination of meat, issue of meat from cloned animals, or food produced from genetically modified organisms.

It is to be supposed that EU patterns will become more popular due to development of societies in non-EU countries towards health- and environment-oriented direction.

The road, however, is not easy. It is worth mentioning here the so-called *Codex Alimentarius*, i.e. the collection of internationally agreed food standards that should be complied with by individual countries The FAO/WHO Codex Alimentarius Commission includes 180 states and the European Community as members. The practical compliance with the standards varies strongly among individual countries.

So, there is a broad area for further research, especially when new information on implementation of "greening" in the EU agriculture becomes available.

Literature

1. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 2010, The CAP Towards 2020: Meeting the Food, Natural Resources and Territorial Challenges of the Future, European Commision , COM 672.

2. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A Budget for Europe 2020, 2011, COM(2011) 500 final.

3. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Our life insurance, our natural capital: an EU biodiversity strategy to 2020, 2011, COM(2011) 0244 final.

4. Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (the so-called Nitrates Directive), Official Journal of the European Union of 31.12.1991, L 375 and Official Journal of the European Union of 24.11.2009, L 309/71.

5. Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, Official Journal of the European Union of 22.07.1992, L 206.

6. Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides, Official Journal of the European Union of 24.11.2009, L 309/71.

7. Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds, Official Journal of the European Union of 26.01.2010, L 20/7.

8.http://www.arimr.gov.pl/o-arimr/information-about-the-agency/forms-of-aid-managed-by-arma/rural-development-programme-for-2007-2013-poland.html.

9. http://ec.europa.eu/agriculture/rural-development-2014-2020/country-files/pl/factsheet_en.pdf

10. Impact Assessment – Common Agricultural Policy to 2020, Annex 2, COM(2011) 625.

11. Kociszewski K., 2014, *Ekologiczne aspekty zmian Wspólnej Polityki Rolnej a zrównoważony rozwój polskiego rolnictwa* [in:] *Z badań nad rolnictwem społecznie zrównoważonym* [20], PW Raport No. 100, IERiGŻ-PIB, Warszawa.

12. Krzyżanowski J.T., 2014, *Przyszłość rolnictwa, gospodarki żywnościowej i obszarów wiejskich*, SGGW, Warszawa.

13. Krzyżanowski J.T., 2005, *Niektóre elementy reformy wspólnej polityki rolnej Unii Europejskiej – 2003*, Problemy rolnictwa światowego, Volume XIII, SGGW, Warszawa.

14. Kwasek M, 2015, *Rolnictwo zrównoważone a bezpieczna żywność i zdrowie* (Synteza), [in:] *Z badań nad rolnictwem społecznie zrównoważonym* (29), PW Raport No. 138,IERiGŻ- PIB, Warszawa.

15. Matthews A., 2013, *Greening the CAP: A Missed Opportunity?*, The Institute of International and European Affairs, Dublin.

16. National Development Strategy 2020 – Active society, competitive economy, efficient state [2012].

Obwieszczenie Ministra Rolnictwa i Rozwoju Wsi z dnia 6 maja 2013 r. w sprawie krajowego planu działania na rzecz ograniczenia ryzyka związanego ze stosowaniem środków ochrony roślin, Monitor Polski, item. 536.

17. Regulation, 2013a, *Regulation (EU) No. 1306/2013 of the European Parliament and of the Council of 17 December 2013 on the financing, management and monitoring of the common agricultural policy and repealing Council Regulations (EEC) No. 352/78, (EC) No. 165/94, (EC) No. 2799/98, (EC) No. 814/2000, (EC) No. 1290/2005 and (EC) No. 485/2008*, Official Journal of the European Union of 20.12. 2013, L 347/549.

18. Regulation, 2013b, *Regulation No. 1307/2013 of the European Parliament and of the Council (EU) of 17 December 2013 establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No. 637/2008 and Council Regulation (EC) No. 73/2009*, Official Journal of the European Union of 20.12.2013, L 347/608.

19. Regulation, 2013c, *Regulation No. 1308/2013 of the European Parliament and of the Council (EU) of 17 December 2013 establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No. 922/72, (EEC) No. 234/79, (EC) No. 1037/2001 and (EC) No. 1234/2007*, Official Journal of the European Union of 20.12.2013, L 347/671.

20. Regulation, 2013d, *Regulation (EU) No. 1310/2013 of the European Parliament and of the Council of 17 December 2013 laying down certain transitional provisions on support for rural development by the European Agricultural Fund for Rural Development (EAFRD), amending Regulation (EU) No. 1305/2013 of the European Parliament and of the Council as regards resources and their distribution in respect of the year 2014 and amending Council Regulation (EC) No. 73/2009 and Regulation (EU) No. 1307/2013, (EU) No. 1306/2013 and (EU) No. 1308/2013 of the European Parliament and of the Council as regards their application in the year 2014*, Official Journal of the European Union of 20.12.2013, L 347/865.

21. Sprawozdanie z posiedzenia Rady UE ds. Rolnictwa i Rybołówstwa w dniu 18-20 listopada 2008r., internal documents of the Ministry of Agriculture and Rural Development.

22. Strategia zrównoważonego rozwoju wsi, rolnictwa i rybactwa na lata 2012-2020 [2012].

23. System płatności bezpośrednich w latach 2015-2020, MRiRW, Warszawa 2015.

24. Water Framework Directive, *Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000*, Official Journal of the European Union of 22.12.2000, L 00.327.1.

25. Z badań nad rolnictwem społecznie zrównoważonym, Wybrane zagadnienia zrównoważonego rozwoju rolnictwa (15), J.St. Zegar (ed.), PW Raport No. 50, IERiGŻ- PIB, Warszawa.

26. Z badań nad rolnictwem społecznie zrównoważonym, Wybrane zagadnienia zrównoważonego rozwoju rolnictwa (23), 2014, J.St. Zegar (ed.), PW Raport No. 100, IERiGŻ- PIB, Warszawa.

27. Z badań nad rolnictwem społecznie zrównoważonym. Rolnictwo zrównoważone a bezpieczna żywność i zdrowie (Synteza), 2014, compiled by M. Kwasek, PW Raport No. 138,IERiGŻ- PIB, Warszawa.

28. Z badań nad rolnictwem społecznie zrównoważonym, Wybrane zagadnienia zrównoważonego rozwoju rolnictwa (24), 2014, J.St. Zegar (ed.), PW Raport No. 109, IERiGŻ- PIB, Warszawa.

29. Zegar J.St. (ed.), 2014, *Z badań nad rolnictwem społecznie zrównoważonym*, Dr hab. Józef St. Zegar (ed.), PW No. 30 IERiGŻ- PIB, Warszawa, 2006. Z badań nad rolnictwem społecznie zrównoważonym (3), Prof. Dr hab. Józef St. Zegar (ed.), PW No. 52 IERiGŻ- PIB, Warszawa, 2006.

30. Z badań nad rolnictwem społecznie zrównoważonym (4), Prof. Dr hab. Józef St. Zegar (ed.), PW No. 59 IERiGŻ- PIB, Warszawa, 2007.

31. Z badań nad rolnictwem społecznie zrównoważonym (19), Prof. Dr hab. Józef St. Zegar (ed.), PW No. 68 IERiGŻ-PIB, Warszawa, 2013.

32. Z badań nad rolnictwem społecznie zrównoważonym, Wybrane zagadnienia zrównoważonego rozwoju rolnictwa (20), Dr hab. Józef St.Zegar (ed.), PW No. 93 IERiGŻ- PIB, Warszawa, 2013.

33. Zegar J. St., *Konkurencyjność rolnictwa zrównoważonego* (Synteza) [in:] *Z badań nad rolnictwem społecznie zrównoważonym* (30), 2014, J.St. Zegar (ed.), PW No. 142.1, IERiGŻ- PIB, Warszawa.

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Світовий досвід у поліпшенні інвестиційної привабливості аграрного сектору України

Постановка проблеми. Україна як держава, що перебуває в активній стадії реформування усіх сфер життєдіяльності та зорієнтована на побудову високорозвиненого суспільства, найближчим часом має розробити власну стратегію економічного розвитку. Досвід багатьох розвинутих країн, які вже пройшли шлях глобальних економічних і соціальних трансформацій, доводить про необхідність значних інвестиційних ресурсів для досягнення позитивних результатів. Інвестиції як важливий економічний ресурс є одночасно й причиною, і наслідком економічного зростання, інноваційного розвитку й підвищення конкурентоспроможності як економіки в цілому, так і окремих її галузей.

Інвестиції є основою розвитку продуктивних сил аграрного виробництва, необхідною умовою ефективного функціонування сільськогосподарських товаровиробників. Потужний потенціал сільського господарства реалізувати повною мірою Україні не вдалося через низку чинників об’єктив-ного та суб’єктивного характеру.

Спад економіки, напруги в політиці, короткостроковість, мінливість і непередбачуваність державного регулювання негативно впливають на інвестиційну діяльність. Численні вимоги до наявності ліцензій та дозволів, обтяжливі перевірки, які є живильним середовищем для корупції, а також саму корупцію інвестори називають головними перешкодами інвестуванню [17, с. 9].

Основними чинниками зниження інвестиційної активності в аграрному секторі національної економіки є, насамперед, економічна нестабільність, зростання різного роду ризиків, високий рівень монополізації окремих видів діяльності, низька оцінка привабливості вкладень через суттєве звуження внутрішнього ринку внаслідок вкрай низької купівельної спроможності населення тощо. У зв’язку з цим корисним є вивчення позитивного зарубіжного досвіду щодо створення сприятливих умов розвитку інвестиційної діяльності з метою імплементації окремих із них в українське бізнес-середовище для поліпшення інвестиційної привабливості національного аграрного сектору.

Аналіз останніх досліджень і публікацій. Проблематика інвестування, стимулювання інвестиційної діяльності, формування сприятливого інвестиційного клімату, удосконалення системи державного регулювання інвестиційних процесів досліджувалися багатьма вченими, серед яких І. Бланк [8], С. Гуткевич [9, 11], А. Гайдуцький [10], Дж. Епштейн [2], Я. Жаліло [12], К. Меєр [4], О. Носова [14], Н. Обушна [15], Ю. Ульянченко [18].