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## Impact of CAP 2014-2020 on Sustainability of Polish Agriculture in the Light of Previous Research and Current Documents

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***Abstract:** The aim of this paper is to present new CAP solutions for 2014-2020, concerning sustainable development of agriculture. The basis for this research is the papers and reports prepared by the Institute within the framework of the Multi-Annual Programme for 2011-2014. Analysis of these works is complemented by Strategy for Sustainable Development of Rural Areas as well as by report drawn up by the Ministry of Agriculture and Rural Development on direct payments in the new Financial Perspective. Analysis of the documents allows formulation of new research areas, for the coming years. Generally, there is some progress going on, at least in documents, however, changes are smaller, than it was expected from the first draft of the EU documents. On the other hand, it appears, explicitly, from the documents under scrutiny, that never in the CAP history, such a stress was given to the environmental issues. Financing of agri-environmental programmes also increased considerably. The years to come will show, whether documentary regulations were really implemented.*

***Keywords:** sustainable development, agriculture, CAP, greening*

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The aim of the study is to present new solutions with regard to sustainable development of agriculture on the basis of abundant literature that result from the implementation of the Multi-Annual Programme 2011-2014 by the Institute. At the same time, the study is based on the EU documents, e.g. Commission working paper (*Impact Assessment...*, 2011), meaningfully subtitled “CAP greening”, Polish sustainable rural development strategy 2012 (Strategy, 2012), and the study concerning direct payment system under the new financial perspective by the Ministry of Agriculture and Rural Development (System..., 2015). The analysis of the documents makes it possible to formulate new research tasks, which will be performed in the years to come.

As stated in the literature (Zegar, 2013a; Krasowicz, Oleszek, 2013), when we discuss sustainable development, we need to distinguish between two concepts: sustainable agriculture and sustainable development of agriculture. The former is static in nature, while the latter – dynamic. As the topic of the study is the impact of the Common Agricultural Policy (CAP) on the sustainability of agriculture, we will refer to the latter.

One of the approaches to measuring sustainability of farms (agriculture) is application of a diverse set of economic, environmental and social indicators (Wrzaszcz, 2012; Toczyński, et al., 2013; Matuszczak, Smędzik-Ambroży, 2013; Wrzaszcz, Zegar, 2014). In this case, sustainability measurement has a specific set of characteristics that result from the environmental impact of agricultural production – on the one hand, it may lead to degradation, while, on the other, it can protect natural environment, because of the close link between sustainability and local conditions. To a large extent, the nature of sustainability depends on the farmer’s production decisions, including the type of activity, intensity of production or its organisation, the farming system, and local conditions. The local agrisystem should be the determinant of the allowed human activity (interference) due to the fact that the local character of agricultural production decides whether particular agricultural practices are harmful or beneficial for the system (Zegar, 2014a). This results in significant constraints on the practical application of findings, including the sustainability measures used in other countries and by international organisations. This shows certain limits on the possibility to conduct comparative studies in various EU countries.

Agricultural circumstances in other countries or regions are inadequate for the situation of the Polish agriculture. Possibly comprehensive sustainability assessment of a farm requires application of diverse indicators that take account of the full scope of undertaken agricultural practices, and choice of applicable tools that make it possible to measure their impact on the landscape and environment as well as environmental, social and economic benefits of greater sustainability of farms. The research assumed (Zegar, 2014a) that a sustainable farm is an entity that meets certain environmental, social and eco-

conomic criteria. Due to the availability of data, previous research focused on environmental sustainability. This is the approach that we are going to maintain in further analysis, primarily to preserve continuity of research and, what we will demonstrate later on, due to the fact that it is compatible with the EU methodology, so it can be used for comparative studies to a limited extent.

The applied method assumed that the basic characteristic of sustainable agriculture is preservation of the production potential of the soil, which is the main element of the natural environment used in agriculture (Zegar, 2014a). Due to that, the minimum postulated basis for implementation of correct agricultural practices is prevention of degradation of soil organic matter, and the assumed aim is to increase fertility and maintain its capability to produce biomass. Agricultural production compliant with respecting natural resources is made possible by skilful crop rotation adjusted to the fertility and type of soil.

The following criteria have been adopted to determine environmental sustainability of a farm – environmental friendliness of agricultural production (Wrzaszcz, 2012):

1. percentage of cereals in the arable land sowing structure (< 66%),
2. number of plant groups cultivated on arable land (> 3),
3. percentage of arable land covered with vegetation for winter (> 33%),
4. stocking density (<2 LU/hectare of agricultural land),
5. soil organic matter balance,
6. gross nitrogen balance, and soil phosphorus and potassium balance.

As we will see below, these are the same criteria as those used for agri-environmental programmes.

## The European Union guidelines

In Luxembourg, 24<sup>th</sup>-25<sup>th</sup> June 2013, the Irish presidency concluded a political agreement between the Council of the European Union, the European Parliament and the European Commission on four proposed regulations (Regulations, 2013) that are to define the CAP for 2014-2020. The legislative acts were formally adopted in autumn 2013.

The Regulations of the European Commission legitimise the Multiannual Financial Framework for 2014-2020 proposed on 29<sup>th</sup> June 2011 (Multiannual Financial Framework proposal). The framework defines CAP objectives for the nearest future and determines the budget for agriculture and rural areas. Under the current CAP, the payment of 30% of direct payments (Communication, 2011a) depends on making the agricultural sector more sustainable (the so-called greening).

Agriculture and forestry in the European Union provide environmental public goods and attempt at mitigating climate fluctuations primarily through sus-

tainable land management (*Impact Assessment...*, 2011). Today, the CAP supports sustainable management of natural resources through a combination of various instruments. Farmers are encouraged to protect the environment and counter climate change using direct payments they receive, which are decoupled and connected to the environmental protection through the cross-compliance principle as well as increasingly more targeted funds under rural development programmes, particularly the agri-environmental funds. Thus, the significance of the CAP, particularly under the current financial perspective, should be seen also with the view to maintenance of sustainable agriculture.<sup>1</sup>

Agriculture and forestry significantly contribute to the production of renewable resources. Natura 2000 sites cover more than 10% of the total agricultural land in the EU; nonetheless, about 60% of habitats and 50% of animal species are insufficiently protected. Though the concentration of nitrogen compounds in surface and ground water has decreased in most Member States, there is constant insistence on water quality improvement (this regards high concentration of nitrogen compounds, particularly in areas with intense animal husbandry and residues of plant protection products). Many countries are struggling with severe water shortage. To ensure environmentally friendly status of water in the EU, it is necessary to reduce phosphorus discharge. This all means the necessity of further targeted measures in areas with intense agriculture for the sake of compliance with the Water Framework Directive<sup>2</sup> and the Nitrates Directive<sup>3</sup>. It should also be remembered that soil erosion becomes a serious problem across Europe, and it is estimated that 45% of soil has low organic matter content.

As it can be seen, despite significant effort, the prevention of further ecosystem degradation has not brought satisfactory results. It should be remembered, however, that the European Union set ambitious goals in the field of climate, energy and biodiversity as part of the Europe 2020 strategy. Thus, sustainable natural resource management and climatic measures will be included among primary CAP objectives for the nearest future, just like sustainable development of agriculture and sustainable territorial development in the EU.

In particular, CAP for the nearest future should work in a way that significantly contributes to the achievement of the ambitious EU biodiversity goal by 2020. “The EU Biodiversity Strategy 2020<sup>4</sup> includes the following goal for agriculture: Maximisation of grassland, arable land and multiannual plantation area that are covered by biodiversity-related measures under CAP in

<sup>1</sup> The subject is raised, e.g. in The Study on the Provision of Public Goods through agriculture in the European Union (2009), Preserving and enhancing the environmental benefits of “Land Services”: Soil sealing, biodiversity corridors, intensification / marginalisation of land use and the permanent grassland (2009), and Reflecting environmental land use needs into EU policy: preserving and enhancing the environmental benefits of unfarmed features on EU farmland (2008).

<sup>2</sup> Directive 2000/60/EC.

<sup>3</sup> Directive 91/676/EEC.

<sup>4</sup> COM(2011)244 final.

order to protect biodiversity and stimulate measurable improvement in animal species and habitat conservation status. The ancillary role of ecosystems should increase compared to the 2010 baseline level thus contributing to improved sustainability of the economy.”

### **Strategy for sustainable development of rural areas, agriculture, and fisheries**

Sustainable development of the country is not possible without agriculture, and care for natural resources and territorial development. Polish agriculture is decisive for food security, social and economic situation of rural residents, the condition of the environment, and the structure of the landscape (Krzyżanowski, 2014).

In order to stand up to challenges, which all the sectors face under the new financial perspective, and to provide an influx of funds from the European Union, the government has prepared a number of strategic documents, primarily the National Development Strategy 2020 (Strategy..., 2012). The Ministry of Agriculture, on the other hand, has developed the Strategy for the sustainable development of agriculture and rural areas 2012-2020 (Strategia zrównoważonego..., 2012), which diagnosed the need for and the purpose of investments in agriculture and rural areas.

On 25<sup>th</sup> April 2012, the Council of Ministers adopted the Strategy for sustainable development of rural areas, agriculture, and fisheries 2012-2020 (SDRAAF). Then, on 9<sup>th</sup> November 2012, the Resolution of the Council of Ministers No. 163 on the adoption of the Strategy for sustainable development of rural areas, agriculture, and fisheries for 2012-2020 was published in *Monitor Polski*, the Polish Official Journal, and thus the resolution entered into force. On 24<sup>th</sup> January 2013, the Minister of Regional Development issued an opinion on the complete compliance of the Strategy for sustainable development of rural areas, agriculture, and fisheries with the Medium-Term National Development Strategy 2020 entitled *Active Society, Competitive Economy, Efficient State*.

The primary objective of SDRAAF is to define the crucial direction of the development of rural areas, agriculture and fisheries by 2020, and thus, ensure that the scope of public interventions financed from national and the EU funds is addressed properly.

The main long-term objective of measures for the development of rural areas, agriculture, and fisheries has been defined in the strategy as follows: “the improvement of quality of life in rural areas and efficient use of its resources and potential, including agriculture and fisheries, for the sustainable development of the country”.

The main goal is to be achieved through measures assigned to five detailed aims:

- Aim 1. Increase in the quality of human and social capital, employment and entrepreneurship in rural areas;
- Aim 2. Improvement in living conditions in rural areas and improvement in their spatial accessibility.
- Aim 3. Food security.
- Aim 4. Increase in productivity and competitiveness of the agri-food sector.
- Aim 5. Environmental protection and adaptation to climate change in rural areas.

Measures under the strategy address new challenges for the civilisation, including: ageing populations, climate change, generational exchange, development of information technologies, occupational and territorial mobility, and the influence of global demographic situation on the food security. The measures were designed based on five key issues, i.e. human capital (1), quality of life (2), security (3), competitiveness (4), and environment (5).

SDRAAF covers the period between 2012 and 2020, i.e. the entire 2014-2020 EU financial perspective, and it will define the directions for the EU funds with regard to the development of rural areas, agriculture, and fisheries.

The issue essential for analysing the possibility of implementing sustainable development of agriculture is the detailed Aim 5: Environmental protection and adaptation to climate change in rural areas. Under the strategy, the detailed aims are translated into priorities. Thus, Priority 5.1. reads “Protection of the environment in the agricultural sector and biodiversity in rural areas”.

This priority states that activity in agriculture and fisheries plays a particularly important role in the context of natural values of the country, especially in the parts that are sanctuaries for rare plant and animal species as well as preservation of natural habitats (including primarily meadows, pastures, ponds, and bird nesting sites) that require traditional farming or appropriately planned management.

Thus, measures are undertaken with regard to protection of biodiversity, including unique ecosystems as well as flora and fauna related to agriculture and fisheries (including measures convergent with agri-environmental measures implemented under the Rural Development Programme 2004-2006 and then the Rural Development Programme 2007-2012, measures for supporting agriculture in less-favourable areas – LFA, and high natural value areas – HNV).

Effective protection of biodiversity should consist in the analysis of the efficiency of implemented systemic solution. Thus, in order to determine the impact of changes to agriculture and fisheries on organisms/the environment, natural monitoring should take place, which would be one of the measures that

fit the tasks referred to as “development of knowledge of protection of agricultural environment and biodiversity in rural areas and spreading thereof”.

Measures for minimising the risk of introducing invasive species that threaten biodiversity or the genetic basis for plant, animal, or fish production are undertaken under the strategy. Taking account of water quality protection (including through rational use of fertilisers and plant protection products) and protection of soil against erosion, acidification, reduction in organic matter content, and pollution with heavy metals, what should be done is to improve (and also to simplify) and popularise the good agricultural practices (particularly through direct payments, whose amounts depend on cross-compliance), and good pond maintenance respecting the need for protection and sustainable use of biodiversity, and support to and popularisation of measures for the development of agricultural farming, and thus reduction in the use of fertilisers and plant protection products.

Regardless of the above undertakings, a water and soil quality monitoring system is developing, and it supports implementation of innovative methods of their protection due to plant protection product use and its negative impact on human health and the environment (which is referred to in the Directive of the European Parliament and of the Council 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides).

The national action plan has also been prepared (Obwieszczenie, 2013), which covers such areas as:

1. ensuring a training system for professional users of plant protection products, distributors of those products, and advisors providing services with regard to plant protection;
2. improving the public awareness of issues related to plant protection products;
3. ensuring supervision of technical condition of equipment for application of plant protection products;
4. protecting water environment and drinkable water against pollution with plant protection products;
5. reducing pesticide use or resulting risks in areas that are available to sensitive population groups and valuable in terms of natural environment;
6. ensuring implementation of integrated plant protection principles by professional users of plant protection products;

7. monitoring the risk related to plant protection products;

The implementation of the last priority includes also measures pertaining to education of producers and processing entities of the agri-food sector on risks that arise from contamination of soil and water with hazardous compounds from agricultural and fish production, and agri-food processing.



Another instrument for protecting water quality and quantity comprises measures under the Water Framework Directive, i.e. water management plan in river basins (the plans assume basic and supplementary measures for improvement of water quality, including in the agricultural sector) as well as implementation and control with regard to compliance with environmental requirements related to soil and water protection (including cross-compliance). The scale of recultivation of degraded and devastated soil and restitution of its agricultural, natural or recreational function requires increasing.

At the same time, measures are undertaken with regard to rational use of water resources for agriculture and fisheries and increase in water retention, which is important in the context of droughts and floods resulting from climate change (e.g. construction or maintenance of water management infrastructure for retention and regulation of water levels; construction of gravitational irrigation systems; maintenance of water management infrastructure in order to adjust it to gravitational irrigation; construction or maintenance of infrastructure for providing or draining water in water management systems; improvement in conditions for agricultural use of water). Yet, increase in water retention should primarily use natural organic processes, such as water retention in peat bogs or ponds, reduction in retention through year-round vegetation cover, etc.

The said measures are supplemented by the research on protection of agricultural environment and biodiversity in rural areas as well as popularisation thereof, which is done e.g. through improvement and development of counselling system (including agri-environmental counselling and advice concerning fertilisers as well as training for farmers with regard to organic farming, promotion of Good Agricultural Practices and encouragement to apply them), protection of biodiversity and the environment, including soil and water. Under priority 5.1. (Protection of natural environment in the agricultural sector), line of intervention 5.1.1. concerning protection of biodiversity in rural areas is implemented primarily in areas where species subject to protection are found (e.g. national parks or Natura 2000 sites), and neighbouring areas.

Line of intervention 5.1.2 (water quality protection) is implemented across the country. It is particularly important in areas with significant risks for the environment due to intense agricultural production or territorial concentration of animal production.

Priority 5.2. “Shaping of rural space taking account of protection of landscape and spatial order” requires undertaking measures with regard to preservation of unique agricultural landscape forms, proper spatial planning in rural areas, and rational land management.

Priority 5.3. “Adaptation of agriculture and fisheries to climate change and their share in mitigating the change” includes promotion of crops that are less sensitive

to droughts and waterlogging, changes to farming techniques due to the shift in growing season, and support for measures that limit and reduce greenhouse gas emissions (primarily methane and nitrous oxide) from agriculture and the agri-food chain.

Agriculture has a large potential in this regard due to:

- modernisation of farms and investment in infrastructure for storing organic fertilisers;
- absorption of carbon dioxide by forested areas and other green areas (meadows, pastures, permanent grasslands);
- support for renewable energy development (use of plant products as energy material, biogas plants);
- proper soil management and use of adequate agricultural techniques;
- recultivation of forestry production potential destroyed by disasters and implementation of preventive instruments (prevention of forest fires);
- carbon sequestration in soil and biomass through rational use of land and cross-compliance, promotion of organic farming, promotion of agricultural land forestation; the measures should be accompanied by spreading knowledge of climate-friendly practices among consumers and agri-food producers (including promotion of Good Agricultural Practices and encouragement to use them, education and raising public awareness of greenhouse gas emission issues and related climate change as well as ways to counter them and adapt to the change), and support for research on mutual influence of rural areas, agriculture and fisheries on climate change.

Lines of intervention under priority 5.3. cover the entire country. At the same time, taking account of weather-related factors and variable water resources on agricultural land, areas where measures that counter or mitigate water shortages in the growing season are particularly important can be identified.

Priority 5.4. reads “Sustainable forest management and hunting economy in rural areas.” Forests play an important role in providing public environmental goods and have a significant impact on carbon sequestration. Thus, rational increase in forest resources in rural areas should be supported by foresting low quality soil where cultivation has no economic grounds thus increasing the profitability of the entire rural economy.

Increase in forest resources in rural areas takes place through measures that provide the opportunity to settle tree farms on arable and recultivated land. Though the matter that should be most important is forestation of areas in the enclaves and semi-enclaves of forest complexes that do not play important roles in terms of biocenoses and will contribute to the increase of existing forest complexes, land that connects smaller forest complexes to create cohesive and continuous landscape forms, the so-called green corridors.

What is more, the establishment of agro-forestry farms should facilitate dual occupation of their owners and reduce the risk of maintaining one of separate farm types. It is important to integrate forestation with implementation of organic farming due to the former's favourable influence on the structure of land use and conditions for biological production.

What is also very important is forestation of land situated in areas where soil and water protection is necessary (e.g. drainage divides). Forestation in mountains, where farming causes soil erosion and nutrient runoff from and, small-area forestation positively affect the environment. Thus, the purpose of forestation is to protect and reinforce the most valuable natural areas. This includes both creation and reinforcement of areas connecting existing protected areas ("corridors") and abandonment of forestation to keep natural habitat as well as wild fauna and flora unchanged.

Priority 5.5. "Increase in the use of renewable energy sources in rural areas" is indirectly related to the issue of agricultural diversification. This includes allocation of agricultural biomass to energy production. It is particularly important that it does not lead to soil abuse, and, as a consequence, to loss of its productivity. In this regard, measures that receive particular support make it possible to use the energy from the biomass and simultaneously use the remaining organic mass to fertilise soil in the next production cycle. The key element for the implementation of the priority is the accomplishment of objectives resulting from the Energy Policy of Poland until 2030. It will particularly concern the implementation of *Directions for Agricultural Biogas Plants' Development 2010-2020*.

### **Solutions with regard to sustainable development of agriculture adopted in Poland**

In 2015-2020, the intention of the economic authority is to achieve the national strategic targets, including objectives of the *Strategy for sustainable development of rural areas, agriculture, and fisheries for 2012-2020*, which was adopted by the government in April 2012, particularly with regard to food security, increase in productivity and competitiveness of the agri-food sector, and adaptation to climate change (System, 2015).

The proposed solutions make it possible to effectively and efficiently use the available EU funds to provide consumers in Poland and other EU countries with healthy high quality food (Kwasek, 2014) and functional food (as an element of sustainable development) in a manner that takes account of the need to restructure and modernise the agri-food sector as well as the environmental requirements in Poland. It will be possible due to **particular support for active small and medium-sized farms** that have a real chance to develop under conditions of globalising markets and changing consumer expectations.

The tool for that purpose is **shifting 25% of the 2<sup>nd</sup> pillar envelope** for 2015-2020, i.e. EUR 2.34 billion, which increases the original budget for direct payments to EUR 23.49 billion. Most of the funds thus obtained (about 73%) will be allocated to finance **additional direct payment for small and medium-sized farms** (support for “first hectares” between 3.01 and 30 ha on each farm). Similar effect will be brought by the planned **payment for young farmers**, to which 2% of annual national envelope are to be allocated. Poland also fully uses the possibility to allocate 15% of the national envelope to **production-related payments**. Nearly two thirds of the amount will be allocated to support in the cattle, sheep and goat sector, and the remaining funds for selected plant products.

The new direct payment system is **complementary to other forms of the EU support** for agriculture and rural areas, including the agri-environmental measures of the new Rural Development Plan 2014-2020 (they are mutually complementary to the greening requirements).

Under the new system, the amount of support for specific forms includes the so-called greening payment.

**Cross-compliance standards and requirements** are binding under the new system (so far). Since 2015, the cross-compliance principle covers fewer requirements and standards of Good Agricultural and Environmental Conditions (GAEC). Requirements that have been removed from its scope concern use of sewage sludge (previous SMR 3)<sup>5</sup>, and animal diseases: foot and mouth disease, swine vesicular disease, and the bluetongue disease (previous SMR 13).

Requirements resulting from the birds and habitats directives (previous SMR 1 and 5) were also modified, i.e. prohibition of wilful catching and slaying of birds, destruction of nests and eggs and scaring of protected birds, and picking, destruction and damage as well as collecting of protected plants that were valid across the country have been abolished.

In the case of Good Agricultural and Environmental Condition (GAEC) standards, the regulations in the following fields have been maintained:

- distance between area where fertiliser is used and water reservoir (GAEC 1);
- procedures concerning issuing water permits for irrigation (GAEC 2);
- protection of underground water against pollution with dangerous substances (GAEC 3);

<sup>5</sup> Statutory Management Requirements (SMR) are a part of the cross-compliance system that includes 13 regulations related to climate and environmental change: public health, plant and animal health, and animal welfare, e.g.: SMR 1 – protection of water against pollution with nitrogen compounds; SMR 2 – protection of wild birds; SMR 3 – protection of natural habitats, wild flora and fauna; SMR 4 – legislation concerning food and animal fodder; SMR 5 – limits to the use of certain substances having a hormonal or thyrostatic action and of beta-agonists in stockfarming; SMR 6 – swine identification and registration; SMR 7 – cattle registration and identification; SMR 8 – identification and registration of sheep and goats; SMR 9 – prevention, control, and countering of BSE; SMR 10 – placing of plant protection products on the market.

- the manner of cultivation of arable land on slope inclined more than 20° (GAEC 5);
- prohibition of agricultural land burning (GAEC 6); and
- ban on destruction of trees that are monuments of nature, ditches up to 2 m wide, and ponds whose total area is less than 100 m<sup>2</sup> (GAEC 7).

With regard to the standard concerning preservation of landscape features (GAEC 7), the regulations were supplemented with the prohibition of clipping trees and hedges on farmer's agricultural land between 15<sup>th</sup> April and 31<sup>st</sup> July. This does not include willows, fruit trees, and short rotation coppices.

In the case of the standard concerning **the minimum soil cover (GAEC 4)**, what was done was the extension of the possibility to perform the duty of maintaining the cover on arable land by including preservation of stubble, crop residues, and mulch. The percentage of arable land where the soil protective cover has to be preserved was reduced from 40% to 30%, and simultaneously the beginning of the period from which this norm should be applied has been shifted from 1<sup>st</sup> December to 1<sup>st</sup> November.

### **This duty meets environmental sustainability criterion No. 3.**

What is more, the obligation to protect permanent grassland and counter the growth of unwanted plant on arable land by cutting the vegetation every year is one of the duties removed from the scope of standards and requirements of cross-compliance. This obligation has been reinforced, and it will be a criterion of eligibility for direct payments for land where production does not take place.

## **Types of payments under the new financial perspective**

### *Single area payment*

**The simplified direct payment system with the single area payment (SAP), as the basic type**, is still used in Poland. Every **eligible hectare** qualifies the farm for payment.

Terms and conditions for awarding single area payment since 2015 are similar to the previous ones. About 45.7% of the national envelope in the 1<sup>st</sup> pillar (i.e. total EU funds allocated to direct payments in Poland), i.e. over EUR 1.5 billion per year, has been allocated to this payment.

Area occupied by landscape features situated on the land that has been declared for payment is also eligible for single area payment. Such features include those that are subject to preservation under the standards, i.e. ditches up to 2 m wide, trees that are monuments of nature, ponds with the total area below 100 m<sup>2</sup>, and landscape features, i.e. area occupied by unpaved

roads, tree belts, walls of terraces that are up to 2 m wide, arable land, and permanent grasslands with single trees where there are less than 100 trees per hectare, and the agricultural activity is similar to practice on agricultural plots without trees.

Buffer zones defined in the payment regulations under the direct support system are also eligible for payments.

### *Greening payment*

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. Sustainable agriculture – cf. p. 19).

**This obligation complies with criterion 1 of environmental sustainability.**

**Table 1. Cross-compliance standards and requirements assigned to specific issues**

Area	Primary issue	Standards and requirements	
Environment, climate change, maintenance of good agricultural and environmental condition of land	Water	SMR1	Protection of water against the effects of improper application of fertilisers containing nitrogen on Nitrate Vulnerable Zones
		GAEC 1	Buffer zones along watercourses – compliance with the obligations to use fertilisers at defined distances from reservoirs and watercourses
		GAEC 2	Compliance with procedures concerning issuing water permits for irrigation
		GAEC 3	Protection of underground water against pollution with dangerous substances
	Soil and carbon resources	GAEC 4	Minimum soil cover – obligation to preserve ground cover on at least 30% of arable land area situated in areas exposed to water erosion that are part of a farm at least between 1 <sup>st</sup> November and 15 <sup>th</sup> February
		GAEC 5	Crop cultivation on arable land situated on slopes with inclination above 20° (prohibition of bare fallow and cultivation of plants that require ridging along the slope; the obligation to maintain plant cover or mulch between rows in the case of perennial crops)
GAEC 6		Preservation of soil organic matter level through ban on agricultural land burning	
Biological diversity	SMR 2	Protection of particular bird species through compliance with obligatory measures on Natura 2000 sites and across the country by adhering to specific prohibitions	
	SMR 3	Protection of specific natural habitat type, animal and plant species through compliance with obligatory measures on Natura 2000 sites	
Landscape, minimum preservation level;	GAEC 7	Preservation of landscape features (monuments of nature, ditches up to 2 m wide, ponds with the total area smaller than 100 m <sup>2</sup> ), and ban on trimming trees and hedges between 15 <sup>th</sup> April and 31 <sup>st</sup> July, except willows, fruit trees, and short rotation coppices	
Public health, animal health, plant health	Food safety	SMR 4	Food and animal fodder safety
		SMR 5	Prohibition of use of compounds having a hormonal or thyrostatic action and of beta-agonists
Animal identification and registration		SMR 8	Identification and registration of swine
		SMR 7	Identification and registration of cattle
		SMR 8	Identification and registration of sheep and goats
Animal diseases	SMR 9	Prevention, control, and countering of transmissible spongiform encephalopathies (TSEs)	
Plant protection products	SMR 10	Compliance with rules of proper plant protection product application	
Animal welfare	Animal welfare	SMR 11	Compliance with calf protection standards
		SMR 12	Compliance with swine protection standards
		SMR 13	Compliance with farm animal protection standards

Source: System, 2015.

**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.

The 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 favourable 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<sup>6</sup>.

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.

The greening payment is automatically assigned to farmers whose agricultural production complies with the principles of **organic farming**<sup>7</sup> – this regulation applies only to the part of the farm area which is used for organic 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<sup>8</sup>. 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 onwards, 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.

## Primary greening requirements

### *Crop diversification*

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

<sup>6</sup> 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.

<sup>7</sup> Farmers who comply with requirements defined in Article 29(1) of Regulation (EC) No. 834/2007.

<sup>8</sup> Pursuant to Article 77(6) of Regulation No. 1306/2013.



- (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 up more than **75% of the arable land**;
- (b) above **30 ha of arable land** – these farms are obliged to cultivate at least **three 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 *Brassicaceae* family, *Solanaceae* family, and the *Cucurbitaceae* family;
- winter and spring forms of the same genus;
- fallow land;
- grass or other green fodder crops.

From **15<sup>th</sup> May to 15<sup>th</sup> July** the control authority checked the diversification of crops, i.e. whether crops are cultivated in this period, and they take the defined proportion of arable land. Inspection in this regard will be possible both on the basis of the presence of the crop and on the basis of its residues found in the field after the crop has been harvested.

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**.

#### *Maintenance of permanent grassland*

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 grassland**, apart from incurring the penalty in the form of payment reduction.

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.**<sup>9</sup> 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.

### *Preservation of ecological focus areas*

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%**<sup>10</sup> 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 **1<sup>st</sup> January and 31<sup>st</sup> 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 m<sup>2</sup>;
- (c) **ditches** whose width does not exceed 2 m;

<sup>9</sup> 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 area of agricultural land declared in 2015.

<sup>10</sup> After the European Commission has presented the evaluation of the implementation of the practice after 2017, this percentage may be increased to 7%.

- 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 4 m; 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, but in that case weighting factor of 0.3 is mandatory (see table 2 – conversion and weighting factor).

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

**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).

**Table 2. The matrix of conversion and weighting coefficients**

FEATURE	CONVERSION FACTOR (m/tree to m <sup>2</sup> )	WEIGHTING FACTOR	EFA (after both factors have been applied)
Fallow land (1 m <sup>2</sup> )	-	1	1 m <sup>2</sup>
Hedges/ tree stands (1 m <sup>2</sup> )	5	2	10 m <sup>2</sup>
Free standing trees (tree)	20	1.5	30 m <sup>2</sup>
Tree lines (1m)	5	2	10 m <sup>2</sup>
Tree groups/ mid-field coppices (1 m <sup>2</sup> )	-	1.5	1.5 m <sup>2</sup>
Balks between fields (1m)	6	1.5	9 m <sup>2</sup>
Ponds (1 m <sup>2</sup> )	-	1.5	1.5 m <sup>2</sup>
Ditches (1 m)	3	2	6 number
Buffer zones(1m)	6	1.5	9 m <sup>2</sup>
Strips of land eligible for payment situated along forest edge(1 m):			
- no production	6	1.5	9 m <sup>2</sup>
- production	6	0.3	9 m <sup>2</sup>
Short rotation coppices (1 m <sup>2</sup> )	-	0.3	0.3 m <sup>2</sup>
Areas forested under RDPs (1m <sup>2</sup> )	-	1	1 m <sup>2</sup>
Intercrops and green cover (1 m <sup>2</sup> )	-	0.3	0.3 m <sup>2</sup>
Nitrogen-fixing crops (1m <sup>2</sup> )	-	0.7	0.7 m <sup>2</sup>

Source: System, 2015.

(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 melliferous plants. **The 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 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. 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.

*Progress in implementation of goals related to sustainable development of agriculture compared to the previous financial perspective*

*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, 2014). Looking at 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 2<sup>nd</sup> 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 (*Sprawozdanie...*, 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 Standards 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 the 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. Organic 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 organic 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, organic 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, organic farming and Natura 2000 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 the 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 organic 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.

### *Agri-environmental programmes for 2014-2020 compared to the previous period (2007-2013)*

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-environmental programme under RDP 2007-2013 was the improvement of the condition of the environment and rural areas, including in particular:

- 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. Organic 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 changed, and the Statutory Management Requirements have been added to the basic requirements (just like in the original proposal by the Commission).

### Conclusions and recommendations

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 to the EU agriculture, including primarily Polish agriculture. It will be a subject of research in the next years and later on. In order to prove positive changes or lack thereof and unambiguously determine the starting point for research, the greening of pre-2014 agriculture in the EU Member States should be determined.

The analysed documents depict it quite optimistically. The 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.

However, let us remember that Polish agriculture, which has been part of the EU agriculture since over a decade, did not progress in that period towards sustainable development like agriculture in other EU countries, though we can speak of environmental policy under CAP since late 1980s (Kociszewski, 2014).

Certain measures announced in strategies have already been undertaken in Poland. Nonetheless, it will be possible to confirm progress towards sustainable development of agriculture after a few years, yet in the period covered by the research.

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 Poland's EU membership (further stimulation of rural development, and compliance with agricultural diversification across the EU, development of biofuel production) and from increasingly numerous ties between European and global agriculture through the 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 action, which is well illustrated by the growing number of producer groups, particularly in the fruit and vegetable sector.

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 the 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, and food safety, or animal welfare.

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

- animal welfare – the EU standards in this regard are high and restrictive, which greatly affects production cost and reduces competitiveness of price of some of the 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 should be thought that the 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, the Commission includes 180 states and the European Community as members. The practical compliance with the standards varies strongly among individual countries.

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